



INSIGHTSIAS

SIMPLIFYING IAS EXAM PREPARATION

- IAS SELF STUDY GUIDE -

SECURE SYNOPSIS

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NOTE: Please remember that following '*answers*' are *NOT* '*model answers*'. They are NOT synopsis too if we go by definition of the term. What we are providing is content that both meets demand of the question and at the same time gives you extra points in the form of background information.



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General Studies Paper - III

Topic: Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

Q) The recent developments in the Indian economy call for a unified regulator for NBFCs. Analyze. (250 words)

[Livemint](#)

Why this question

The article examines the need for an independent and unified regulatory regime for NBFCs. In the context of several crisis hitting Indian NBFCs, it is important to examine the issue in detail.

Directive word

Analyze-here we have to examine methodically the structure or nature of the topic by separating it into component parts, and present them as a whole in a summary.

Key demand of the question.

The question wants us to dig deep into the recent developments in the NBFCs sector in the Indian economy and bring out as to why there is a need for a unified regulator.

Structure of the answer

Introduction- write a few introductory lines about the recent crisis being faced by the NBFC sector in India. E.g Infrastructure Leasing & Financial Services (IL&FS) crisis of last October and the DHFL crisis.

Body-

Discuss in points as to why there is a need for a unified NBFC regulator in India. E.g

- *India has 10,000 active NBFCs that are regulated by the Reserve Bank of India (RBI), of which some 275 are systemically important (SI).*
- *Non-deposit taking systemically important entities, tagged with the alphabet soup acronym NBFC ND-SI, are those with a threshold asset size greater than ₹500 crore—asset finance companies, asset reconstruction companies, infrastructure finance companies, and microfinance companies are among the various types that make up the broad group of NBFCs.*
- *Peer-to-peer (P2P) lending companies are the newest set to join this group.*
- *Indian non-banks are governed by a regulatory hodgepodge of RBI, the Securities and Exchange Board of India (Sebi), the Insurance Regulatory and Development Authority (Irdi), NHB, the ministry of corporate affairs (for nidhi companies) and state governments (for chit funds).*
- *Cooperation is on an ad hoc basis and often post-event.*
- *The commission chaired by former justice B.N. Srikrishna recommended that Sebi, Irdi, the Pension Fund Regulatory and Development Authority and the Forward Markets Commission (since merged with Sebi) be merged under one regulator to be called the Unified Financial Authority.*
- *The FSLRC recommended that micro-prudential regulation (health of individual firms) be conducted through a non-sector specific approach.*

Conclusion— based on your discussion, form a fair and a balanced conclusion on the given issue.

Background:-

- Non-Banking Financial Companies (NBFC) are establishments that provide financial services and banking facilities without meeting the legal definition of a Bank. They are covered under the Banking regulations laid



down by the Reserve Bank of India and provide banking services like loans, credit facilities, TFCs, retirement planning, investing and stocking in money market.

- The recent troubles with non-banking financial companies IL & FS Crisis and the latest reports on DHFL crisis have generated a lot of discussions, with calls for tighter regulation.

Why there is need for unified regulator of NBFC:-

- NBFC is **passing through a turbulent period following a series of defaults by Infrastructure Leasing and Financial Services (IL&FS)** and the subsequent liquidity crunch. .
- **Rapid growth and continued dependence on bank funding** meant that the risks to the banking system from NBFC also became larger during this period
- **The IL&FS episode and its aftermath** have resurfaced deeper issues about NBFC regulation. For one, it reaffirmed the concern of NBFC risks impacting the banking system.
 - **With** very large borrowing, questions were immediately raised on the impact of IL&FS default on banks, and also on funds and even corporates that were holding debt paper issued by the company.
 - **Essentially** this episode highlighted the risks that the regulator has always perceived in letting NBFCs grow on the back of bank funding.
- **NBFCs have no liquidity requirements such as statutory liquidity ratio or liquidity coverage ratio, except for SLR for deposit-taking NBFCs.** When a bank borrows from another, it has to maintain a 19.5 percent SLR on such a borrowing. When an NBFC borrows from a bank, it has to maintain no SLR.
- **International experience:-**
 - To mitigate a huge crisis and to protect consumers, China dramatically tightened its regulation related to P2P firms beginning in 2016.
- **Cooperation is on an ad hoc basis and often post-event.**
 - Indian non-banks are governed by a regulatory hodgepodge of RBI, the Securities and Exchange Board of India (Sebi), the Insurance Regulatory and Development Authority (Irdi), NHB, the ministry of corporate affairs (for nidhi companies) and state governments (for chit funds).
 - Today NBFCs are regulated on a sector specific basis like IRDA,NHB,SEBI etc.In an economy which is complex and things are interconnected unified regulations would make more sense.
- Unified regulator would enhance cooperation and enable to identify systemic risks at much before. This **would increase the potential to combat such risks before its too late.**
- It has **also been recommended by FSLRC committee headed by B.N Srikrishna.**
- NBFCs are India's shadow banks. When they were a relatively small part of the system, we could let them grow with light regulation. This is no longer the case. Recent events should be treated as a wake-up call and result in the tightening of regulations.

However there have been arguments against unified regulation due to the following reasons:-

- there are strong inter-linkages between banks and NBFCs and a unified regulation by the same regulator is essential for financial stability.
- For monetary policy to be effective, credit creation (that is, by banks and credit institutions like NBFCs) should be regulated by the central bank.

Way forward:-

- The systemic risks should be managed by Financial stability and development council.This could be done by giving Statutory status to FSDC as recommended by FSLRC committee.
- Given the growing size and dominance of the NBFC sector, it is important that the threshold capital levels for entry be substantially increased. It may be prudent for RBI to evaluate the need to shore up minimum capital requirements for various NBFCs.
- While RBI has identified systemically important NBFCs, it needs to step up the monitoring of NBFCs which belong to large, diversified groups. Checks and balances are needed to ensure that risks do not build up in the sector due to structures which are too-complex-to-manage.
- RBI could consider re-visiting some of the unimplemented recommendations of the Working Group on Issues and Concerns in the NBFC Sector chaired by Usha Thorat in 2011.
 - One such recommendation was the introduction of a liquidity coverage ratio for NBFCs. The objective was to ensure that NBFCs have cash balances and holdings of government securities which may fully cover gaps between cumulative outflows and cumulative inflows for the first 30 days. This would be the buffer in times of stress.



- The regulatory oversight on NBFC hitherto can be summarised as ‘much lighter on the assets, and absent on the liabilities’. This must change. Liabilities side regulations must be imposed, at least for the systemically important NBFCs.

Q) The Indian economy is floundering on many economic parameters related to employment. Analyze. (250 words)

Livemint

Why this question

The article highlights the broader questions highlighted by the recent NSSO report on jobless growth in Indian economy. The article provides several relevant data and ends with a poignant question which needs reflection to improve the state of our economy.

Key demand of the question

The question expects us to discuss the status quo of Indian economy with respect to employment and issues related to employment such as jobless growth, LFPR, labour productivity etc. The question expects us to flag off the major issues and suggest a way forward.

Directive word

Analyze – When asked to analyze, you have to examine methodically the structure or nature of the topic by separating it into component parts and present them as a whole in a summary.

Structure of the answer

Introduction – Highlight that the demographic dividend of the country makes the question of employment pertinent for our economy. In this backdrop, the recent NSSO report (as per media reports) paint a sorry picture of employment scenario in the country.

Body

Discuss the issue of jobless growth in general country . Use data to buttress your argument.

Discuss the fall in LFPR and examine the causes. Focus on the fall in female LFPR.

Discuss the issue of labour productivity and highlight what it suggests about the Indian economy

Discuss the status of job creation in the economy in formal vs informal sector

Conclusion – give your opinion on the state of employment in Indian economy based on discussion and suggest way forward.

Background:-

- India has one of the youngest populations in an aging world. By 2020, the median age in India will be just 28. Demographics can change the pace and pattern of economic growth. However recent reports raise concerns about the job situation in India.

Indian economy is floundering on many economic parameters:-

- **Labour force participation:-**
 - According to the data published in the **Business Standard**, the labour force participation rate has declined systematically. It was 43% in 2004-05, 40% in 2009-10, 39.5% in 2011-12 and 36.9% in 2017-18.
- **Jobless growth:-**
 - According to the latest NSSO report, the joblessness situation had worsened since the results of the last survey in 2011-12. and, this, despite growth in gross domestic product (GDP) continuing to average over 7%. This shows that there is jobless growth taking place .
- **Women :-**
 - Almost the entire decline in the labour participation is triggered due to a sharp reduction of women in the workforce. The labour force participation rate of women was 29.4% in 2004-05, 23.5% in 2009-10, 22.5% in 2011-12 and 17.5% in 2017-18. While women make up nearly half of the population, they account for less than one-fifth of the workforce.



- **Quality of jobs:-**
 - Growth in the economy is accelerating, which could, given that jobs are not growing commensurately, only mean that Indian workers
 - Anecdotal data suggests that this is very unlikely, especially since employment in the formal economy, which is where productivity gains accrue the most, is shrinking.
 - Bulk of the new generation of jobs—like delivery personnel, beauticians, Ola/Uber drivers and so on—are coming up in the informal economy and, here again, the impetus comes from the consumer economy.
- As **open unemployment rates increase, more and more people got disheartened, and fall out of the labour force**. In other words, they stopped looking for work, even though they were in the working age (15+). The result is that labour force participation rates (LFPR), for all ages, have fallen sharply from 43% in 2004-5 to 39.5% in 2011-12, to 36.9% in 2017-18.
- **Disguised employment, poor skill set** etc hit economic productivity negatively.
- According to the National Sample Survey, out of the 470 million people of working age in India, only 10% receive any kind of training or access to skilled employment opportunities.
- There's a huge **mismatch between demand and supply when it comes to skilled workforce** and employment opportunities, which could place a strain on the economy in the long run.

Way forward:-

- Besides promoting technical education, the government needs to focus more on creation of jobs and demand for workers since industries are unable to create sufficient job opportunities for all the technically educated people
- Private sector leaders should build capacity among unskilled and semi-skilled workers to ensure sustainability of renewable energy projects and provide opportunities to rural communities. Government officials should create public training programmes to prepare the poor and less educated people especially semi-skilled and unskilled for employment in the clean-energy sector.
- People need to be made self employed by providing training in skills and latest technologies for agriculture and other avenues especially in rural areas.
- Women in rural areas who are left behind by men due to migration need to look into other sources of livelihood other than agriculture like animal husbandry etc.

Q) India is still vulnerable to the twin account deficits on account of increase in oil prices. Discuss. (250 words)

[Livemint](https://www.livemint.com)

Why this question

Many oil producing nations have been witnessing tumultuous politics and it has an important bearing on India which imports most of its oil needs. In this context it is important to discuss why India is susceptible to twin deficit shocks due to oil price increase.

Directive word

Discuss- this is an all-encompassing directive which mandates us to write in detail about the key demand of the question. we also have to discuss about the related and important aspects of the question in order to bring out a complete picture of the issue in hand.

Key demand of the question.

The question wants us to write in detail about India's dependence on oil imports and why it is susceptible to twin deficit challenges on account of increase in oil prices.

Structure of the answer

Introduction— write a few introductory lines about India's oil imports and oil exporting countries. E.g Oil imports constitute around 25 percent of total imports in a year etc.

Body-

Discuss the reasons as to why India is susceptible to twin deficits on account of increased oil prices. E.g



- *India will continue to remain vulnerable to oil price shocks due to its high import dependence.*
- *This vulnerability can lead to episodes of sharp increase in the current account deficit and rising GDP growth would be insufficient to counter it.*
- *Considering the geopolitical risks surrounding major oil producing countries such as Iran, Qatar and Venezuela, and the threat of Opec (Organization of the Petroleum Exporting Countries) production cuts, stable crude prices are never a foregone conclusion.*
- *The Union Budget 2019-20 has expectedly shown a slip in the fiscal deficit, at an estimated 3.4% for the current, as well as the next fiscal year.*
- *On the domestic front, such episodes will lead to surge in inflation or fiscal deficit, or both, depending on how much of the increased prices the fiscal authority decides to pass-through.*
- *Lower crude prices have enabled the government to charge higher excise duties on petrol and diesel. However, the gains from the excise duties have plateaued as the government has been compelled to roll back the rate of excise in the face of rising crude prices etc.*

Conclusion– *based on your discussion, form a fair and a balanced conclusion on the given issue.*

Background:

- Fiscal deficit means expenditure higher than income, while current account deficit (CAD) implies shrinking value of a country's net foreign assets, which means less earnings and more payments in foreign currency. These two deficits are expressed as a percentage of GDP.

Twin account deficits on account of increase in oil prices :-

- **Higher crude prices will adversely affect the twin deficits fiscal and current account deficit of the economy, which will have spill over impact on the monetary policy, and consumption and investment behaviour in the economy.**
- Given that fuel imports constitute a larger share of India's imports compared with other large emerging markets, India is especially vulnerable to an oil price hike, which, apart from raising the twin deficits, would also feed into inflation.
- **Fiscal deficit:-**
 - India, the world's seventh-largest economy, was a key beneficiary of falling crude oil prices between 2013 and 2015. Almost the entire reduction of about 0.6% of the gross domestic product (GDP) in India's fiscal deficit between FY14 and FY16 could be attributed to the sharp fall in crude prices.
 - As a rule of the thumb, an increase of \$10 per barrel in crude prices will lead to an increase of about Rs17,000 crore in fuel subsidies, equivalent to 0.09% of GDP.
- **Current account deficit:-**
 - In the extreme event of oil prices reaching to \$90/bbl, India's twin deficits will balloon uncomfortably. The current account deficit would rise to 3.5% of the gross domestic product (GDP), the highest since 2012-13.
 - As a rule of thumb, an increase of \$10 per barrel in crude oil prices will lead to an adverse impact of \$10-11 billion (or 0.4% of GDP) on current account deficit.
 - However, the current account gap will remain significantly narrower than five years ago. Moreover, economy-wide external debt is limited and the country's foreign exchange reserve buffers are ample.

Q) Union Budget 2019 contained many measures for socio economic improvement including direct income transfers which can likely affect fiscal prudence. Examine. (250 words)

[Indianexpress](https://www.indianexpress.com)

Why this question

The budget presented this year introduced and expanded several schemes for overall socio economic improvement. There is a risk of such measures affecting the fiscal deficit of the country especially since indirect tax revenue growth has been muted because of GST. The question expects us to frame a perspective on these issues.



Key demand of the question

The question expects us to discuss the various measures introduced for socio economic improvement and whether it is likely to have an adverse impact on fiscal prudence. The question expects us to highlight the risks and challenges, and discuss the way forward.

Directive word

Examine – When you are asked to examine, you have to probe deeper into the topic, get into details, and find out the causes or implications if any.

Structure of the answer

Introduction – Highlight that the budget has expanded social welfare spending and has announced a direct income transfer scheme as well.

Body

Discuss the major measures introduced for socio economic welfare such as income support of Rs 6,000 per year to small farmers who own less than 2 hectares of land, income tax rebate, Pradhan Mantri Shram Yogi Mandhan for unorganised sector workers with monthly incomes of less than Rs. 15,000 etc

Discuss the likely impact it is likely to have in government spending. Discuss how the government plans to mobilize this revenue.

Highlight the track record of the government on fiscal prudence by talking about the FD levels of the past year and projections. Examine whether tax revenue target is ambitious.

Conclusion – Give your view as to whether such measures make for smart economics or smart politics and discuss way forward.

Background:-

- Budget has expanded social welfare spending and has announced a direct income transfer scheme. **Fiscal outlays were increased** to promote a slew of schemes related to agriculture, defence, electricity, animal husbandry, and more.

Socio economic measures in Union Budget 2019:-

- Through a flurry of steps including the full tax rebates to individuals having an annual taxable income of up to Rs 5 lakh, the budget has tried to induce higher consumption, investment and savings .
 - This will boost the disposable income and purchasing power in the hands of a taxpayer, in turn increasing low-ticket consumption.
- At the same time, the government gives an impression that the fears over the **fiscal gap** target for FY20 to 3.4 per cent of the GDP are disproportionate.
- Pradhan Mantri Shram Yogi Mandhan for unorganised sector workers with monthly incomes of less than Rs. 15,000 etc.
- A series of impactful tax breaks for income taxpayers coupled with farmer benefits should be positive for consumption and auto. Further, **infrastructure**, banking and sectors deriving benefits from rural growth stand to benefit.
- Pradhan Mantri Kisan Samman Nidhi :-**
 - To relieve farmer distress the budget unveiled the **Pradhan Mantri Kisan Samman Nidhi, an assured income support programme**, for 120 million small and marginalized farmers with an outlay of ₹75,000 crore per year.
 - It provides support to small and marginal farmers who are largely involved in subsistence farming and struggles to invest in agriculture inputs or technology,
 - It will boost the rural consumption and positive for agriculture and allied sectors.
 - Poverty reduction:-**
 - Cash transfer programmes have become an important tool of social protection and poverty reduction
 - It has immediate impact on reducing hunger and rural poverty.
 - They can help households to overcome credit constraints and manage risk.



- **Better use :-**
 - This can increase productive investment, increase access to markets and stimulate local economies.
 - Income support can be used to make a repayment or at least activate a bank account which can then receive a loan.
 - It can increase investment in agricultural inputs, including farm implements and livestock
- **Criticism:**
 - **It is no substitute for the lack of investment in agriculture, which has declined at 2.3% per annum in real terms**
 - **By taking away precious fiscal resources, it makes the farmer more vulnerable to both market as well as non-market induced risks.**
 - **Fiscal constraints to states:-**
 - The income transfer scheme will further erode the fiscal capacity of states.
 - It also offers less effective coverage than the Odisha and Telangana income support schemes whose success inspired it.
- The **extension of 2% interest subvention to animal husbandry and fisheries farmers**, using Kisan Credit Card for loan, will be beneficial.
- Similarly, the **extension of 2% interest subvention for the full loan term to farmers seeking loan rescheduling on account of natural calamities**, will ease pressure faced by them. In case of timely repayment, they will get an additional 3% incentive for the entire period of reschedule of loans.
 - These measures initiated by the government to revive the agricultural economy will help fertilisers companies in the medium-term through higher demand.
- **Loans availed through the Kisan Credit Card would give the farmers benefit of 2 per cent interest subvention** and will go some way towards easing the ongoing pricing pain for shrimp farmers.
- A fund of Rs. 60,000 crore is also being allocated to the Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA), more funds will be given if needed.
- **Rashtriya Kamdhenu Aayog** is also to be set up to upscale sustainable genetic up-gradation of cow resources and to enhance production and productivity of cows
- Increased the allocation for **Rashtriya Gokul Mission to Rs 750 crore** in the current year itself.

Impact on fiscal prudence :-

- Interim budget displays the necessary courage and dexterity to play within the rules of fiscal prudence, relying more on a revenue buoyancy in future than borrowing to meet the commitments.
- Budget has dealt the gripping issues with smarter solutions that have ramifications for many other areas. For example, in the real estate sector, the move to improve demand from the consumer side will partly come from a plethora of tax benefits.
- Moody's also viewed the focus on higher expenditure without any revenue gathering measures, leading to a slippage on fiscal deficit front for four consecutive years, as a "credit negative" for the sovereign rating.
- Some experts feel that announcements towards farms, farmers and middle income category are expected to create huge pressure on the fiscal deficit during FY20.
- The two big measures - 'The PM Kisan Yojna' and the tax rebate for the middle class will certainly constraint the budget and move resources away from the productive investments. The government has already missed the fiscal deficit target of 3.3 per cent in 2018-19. The fiscal deficit has slipped to 3.4 per cent.

Q) Estimating economic activity is never going to be an easy task in an economy that has poor data standards. Examine. (250 words)

Livemint

Why this question

Off late several economy related statistics have presented conflicting viewpoints which makes it difficult to gauge the performance of the economy and also leads to other issues. The article examines these issues and highlights the need of improvement of statistical methodology in the country.

Key demand of the question



The question expects us to bring out the problems associated with estimating economic activity in India because of the varying pictures presented by the data. We need explain the issues involved and highlight the impact of such data uncertainty on policy making and economy.

Directive word

Examine – When you are asked to examine, you have to probe deeper into the topic, get into details, and find out the causes or implications if any.

Structure of the answer

Introduction – Highlight why this issue is in news. Also mention that India thanks to mahalanobis had built a statistical system that was once the envy of the world.

Body

Explain why does the question say that India has poor data standards. Here we need to talk about the controversy related to employment data statistics, GDP data etc

Discuss the issues with data standards of the country

- *How surveys are designed and questions are developed has evolved into a science that transcends the skill set usually employed by our statistical systems.*
- *We decided to adopt international standards developed for industrial societies where self-employed farmers and shopkeepers have been swallowed up by large corporations. In India, the socio economic realities are vastly different.*
- *data collection is increasingly being done by contractual employees and for-profit organisations. Supervising them and ensuring their honesty remains challenging. While improved technology for monitoring fieldwork such as random segment audio recording of interviews and real-time checks for detecting frauds and errors may help increase honesty, there is no substitute for empathy and experience*

Discuss the impact of poor data standards on economy and policy making such as on setting interest rates based on inflation data etc

Discuss the way forward – finalizing the draft national policy on official statistics etc

Conclusion – Give your view on the importance of accurate data standards and what needs to be done.

Background:-

- Off late several economy related statistics have presented conflicting viewpoints which makes it difficult to gauge the performance of the economy and also leads to other issues. Recent controversies about official statistics with respect to GDP growth, unemployment etc raise questions about data standards in India.

Issues with current data standards in India :-

- **Path of embarking on the evidence-based approach is not without obstacles:-**
 - With evaluative studies varying in quality, there are doubts on which ones should be relied on and in what manner should a set of studies on a particular issue be appraised.
- **Ethics:-**
 - Data collection is increasingly being done by contractual employees and for-profit organisations. Supervising them and ensuring their honesty remains challenging.
- A report in The Guardian in 2017 noted declining trust in official statistics around the world and argued that it damages democracy by jeopardising public knowledge and public argument.
- **Employment:-**
 - Absence of data on district-level employment for decentralised planning, data on circular migrant workers; the working and living conditions of women labour.
- **Official data and post-truth politics**
 - According to some political analysts and scholars, post 2014, in the age of post-truth politics there has been instances of manipulating and distorting data by the government. Post truth politics is evoking public emotions and deviation from facts and details of policy.



- **Faulty sampling frames**
 - Identifying respondents and sample selection is poor
 - Survey designs, questionnaires are inappropriate in many instances
 - For instance The RBI adopts inflation targeting approach to maintain price level-monetary policy. This approach is based on data on inflations expectations of individuals The reliability and validity of the data is a big question as ASER reports highlights extremely low mathematical skills of Indians.
- **Delay/ Sporadic nature of Release of Data:**
 - There is no strict process of monitoring for release of data.
 - Delay in publishing data is a persisting problem. However, there has been improvement in recent years
- **Discrepancy in data:**
 - Lack of uniformity in data across government agencies is a major concern
 - For instance there is data contradiction on jobs as recently EPFO estimated that 3.68 million jobs were generated till November of fiscal year 2018- much higher estimation than that of other agencies
- **Quality/ Accuracy of data is another concern**
 - In 2011, commerce secretary admitted that India's export figures for the April–October period were inflated by US\$9.4 billion due to a misclassification of certain items and data entry errors.
 - There has also been question over the accuracy of the Index of Industrial Production
 - Allegations that NSS systematically underestimated household consumption
- **Infringement of privacy** by the government's data-collection machinery

Way forward:-

- Data-driven politics is only credible if administrative data is complemented by rigorous independent studies and evaluations. **Civil society too plays a critical role by demystifying and communicating data, thus empowering citizens with relevant information.**
- **Harness diverse energies from academic and research institutions** such as the ISI, the Indian Agricultural Statistics Research Institute etc.
- **Include private sector as well:-**
 - **Smaller, technology-savvy private sector organisations may also make important contributions in technology-driven data collection.**
 - Around the world, in diverse countries such as China, South Africa, Brazil, the U.K. and the U.S., statistical ecosystems consist of universities, research institutions and government agencies working synergistically.
- **Creative thinking about building synergies with diverse communities such as academic and research institutions** would strengthen it and reduce the burden on the NSC, leaving it free to devote greater attention to developing quality control parameters and to play an oversight and coordination role.
 - Scholars from different disciplines should be incorporated for framing samples and questionnaires
 - Include takeaways from experiments designed by cognitive anthropologists, and survey design specialists
- Robust survey management structure to ensure quality and honesty in data collection

Conclusion:-

- The draft National Policy on Official Statistics offers a great start for fostering trust in statistics but enhancing its inclusiveness will go a long way towards encouraging competence, reliability and honesty in public statistics.

Q) Critically analyze the state of unemployment and the political discourse around it in India. (250 words)

[The hindu](#)

Why this question

Unemployment has become a chronic problem of India and in the recent years the situation has only worsened. In this context it is important to analyze the scenario today in order to get a better understanding of the issue

Directive word

Critically analyze- here we have to examine methodically the structure or nature of the topic by separating it into component parts, and present them as a whole in a summary. based on our discussion we have to form a concluding opinion on the issue.



Key demand of the question.

The question wants us to dig deep into the issue of unemployment in contemporary India and bring out its salient aspects as well as how public discourse is shaped around it.

Structure of the answer

Introduction— write a few introductory lines about the status of unemployment in India. E.g present some statistics from the Labour reports or any other authentic report like the CMIE report.

Body-

Discuss about the issue of unemployment in contemporary India. E.g

- mention the unemployment rates in India in recent years- how they have changed but little.
- Mention that the labour force which is the sum of the employed and those unemployed who are seeking employment, has been decreasing in India.
- A shrinking of the labour force is most unusual in an economy with a growing population, and thus a growing working age cohort.
- Mention demonetization and discouraged-worker effect etc

Discuss the form of public discourse around the issue. E.g

- Employment does not usually figure in the public discourse orchestrated by political parties, either at the Centre or in the States.
- Political parties and politicians have failed in creating gainful employment.

Discuss the role played by media etc.

Conclusion— based on your discussion, form a fair and a balanced conclusion on the given issue.

Introduction:

- Unemployment has become a chronic problem of India and in the recent years the situation has only worsened.
- The National Sample Survey Office's (NSSO's) report, "**State of Working India, 2018**" data shows a record spike in unemployment in 2017-18. The overall unemployment was at a 45-year high, with youth between the ages of 15 and 29 facing higher rates of joblessness than others

Body:

State of Unemployment in India:

- CMIE database on "**Unemployment Rate in India**" is based on the panel size of over 1,58,000 households in the country.
- The unemployment rate in December 2018 rose to 7.38% from 6.62% in November 2018 and 4.78% in December 2017, highest since September 2016 when it stood at a high of 8.46%, the CMIE data showed.
- The total number of people employed fell by about 1.09 crore, about 83% or 91.4 lakh jobs were lost in rural areas.
- There has been a decline in the estimated Labour Participation Rate— the proportion of working-age people who are willing to work and are either actually working or are actively looking for work, in line with a fall in the unemployment rate.
- The estimated labour participation rate also dropped from 43.57 in December 2017 to 42.47 in December 2018. The rate was at 45.15 in December 2016 and at 47.84 in September 2017, the data showed.

The reasons for issue of unemployment in contemporary India:

- The labour force is the sum of the employed and those unemployed who are seeking employment.
- A shrinking of the labour force is most unusual in an economy with a growing population, and thus a growing working age cohort.
- **Low education and lack of skills** lead to loss of many job opportunities.
- **Discouraged-worker effect:** A section of those hitherto willing to work may have simply dropped out of an already challenged labour market.
- **Demonetization** has caused demoralisation among a section of the already unemployed who may have given up all hope of finding employment.



- About **90% of Indian Workforce is in the unorganized sector** which was majorly affected during Demonetization and GST introduction.
- **Declining Capital formation** which is not backed by Public and Private Investment.
- **Low female LFPR to the tunes of 24%** also adds to high unemployment rate.
- **Automation and IR4.0** is a looming threat to many jobs which have repeated work or sequential work.
- Socially disadvantaged groups do not get enough exposure in the job market like the general castes and Other Backward Classes.
- Labour laws in India are complex and relatively strict. Employment protection legislation is restrictive, compared with other emerging economies and OECD countries. Thus, corporates in India tend to rely more on **temporary contract labour**, stay small or substitute labour for capital to avoid strict labour laws.

The form of public discourse around the issue is:

- Employment does not usually figure in the public discourse orchestrated by political parties, either at the Centre or in the States.
- Political parties and politicians have failed in creating gainful employment. Employment generation has taken a back seat in their Governmental programmes.
- Despite the declining capital formation, the governments didn't consider it necessary to respond to it by stepping up public investment, the obvious thing to do in the prevailing circumstances.

Way Forward:

- **Increase public spending in education:**
 - At 3.8% of GDP, public spending on education in India is lower than countries like Brazil and Malaysia.
 - The focus of the government needs to shift to spending on enhancing the quality of education and vocational training.
- Similarly, allowing foreign investment in sectors like legal and accountancy services will create employment as more foreign firms will move to India.
- Infrastructure investment can also be utilised as an engine of job-creation.
- Investing in people through healthcare, quality education, jobs and skills helps build human capital, which is key to supporting economic growth, ending extreme poverty, and creating more inclusive societies.
- **Educated unemployment:**
 - Besides promoting technical education, the government needs to focus more on creation of jobs and demand for workers since industries are unable to create sufficient job opportunities for all the technically educated people
 - Policies should ensure that the education systems prepare young people for the skill demands of employers through outreach programmes, training, apprenticeships, and access to job-search assistance measures.
 - More businesses should recognise the opportunity, and need, to invest in young people so that they can help in developing the qualities necessary for education and future employment.
 - **NGOs** should engage collectively in **policy advocacy on youth** They should also partner with companies to develop skills and training programmes to tackle youth unemployment.
 - Singapore has launched certain programmes to establish partnerships between domestic and foreign universities to promote tertiary education. India could learn from such initiatives.
 - New age sectors like **defence and aerospace, education and healthcare, and burgeoning green sectors like solar energy and wind**, present another massive opportunity to identify 'upcoming jobs' and prepare talent accordingly. India's ambition to create more than **one million new jobs in the green energy sector by 2022** is encouraging.
- **Educated unemployment:**
 - There should be **cluster development to support job creation in micro, small and medium enterprises (MSMEs)**. Most of the **unorganised sector employment** is in MSMEs, which tend to be concentrated in specific geographic locations.
 - Private sector leaders should build capacity among unskilled and semi-skilled workers to ensure sustainability of renewable energy projects and provide opportunities to rural communities.
 - Government officials should create public training programmes to prepare the poor and less educated people especially semi-skilled and unskilled for employment in the clean-energy sector.
 - People need to be made self employed by providing training in skills and latest technologies for agriculture and other avenues especially in rural areas.



- Women in rural areas who are left behind by men due to migration need to look into other sources of livelihood other than agriculture like animal husbandry etc.

Conclusion:

- India has one of the youngest populations in an aging world. By 2020, the median age in India will be just 28. Demographics can change the pace and pattern of economic growth.
- While China's spectacular growth has already benefited from a demographic dividend, India is yet to do so.

TOPIC: Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.

Q) Tax incentives are a significant of revenue foregone and the govt should prevent private companies from rent-seeking through tax incentives. Comment. (250 words)

Reference

Why this question

The article discusses the issue of revenue foregone by the government on account of various tax incentives provided to the companies and industries. It is therefore necessary to read the article in detail and discuss why there is a need to and rent seeking on account of such fiscal structure and policy.

Directive word

Comment- here we have to express our knowledge and understanding of the issue and form an overall opinion thereupon.

Key demand of the question

The question wants us to express our knowledge and understanding as to how various forms of tax incentives promote rent seeking behaviour and add to the revenue foregone by the government. It wants us to express our opinion as to why there is a need to revise such policies and incentives.

Structure of the answer

Introduction— write a few introductory lines about the tax incentives given by the government to the businesses. E.g India provides a large number of tax incentives for different objectives — to promote exports, tax rebate on inputs are provided; to promote R&D etc.

Body-

Discuss the nature of revenue foregone due to those incentives. E.g

- *Due to a prevalence of a large number of incentives, there is a difference between the statutory rate of tax and the effective rate of tax.*
- *The largest source of revenue foregone from incentives offered to businesses is accelerated depreciation.*
- *SEZ-related incentives form the next biggest component of revenue foregone from corporate taxes.*
- *There are a number of incentives related to SEZs; however, close to 90 percent of SEZ-related revenue foregone comes from export-promoting incentives etc*

Discuss how it affects the economy and why it should not be encouraged. E.g

- *Tax incentives work when their use is properly justified, when they deliver intended short- and long-term results (i.e. attract the right investments and generate social benefits), and when associated costs, both expected and unintended, are economically and socially acceptable.*
- *There must be rules setting clear criteria for determining which investments and firms are qualified to avail of tax incentives.*



- *Given the high economic, political and social costs associated with tax incentives, it is essential that tax incentives are underpinned by clear, transparent and credible legal, technical and political processes to deter rent-seeking behaviour etc.*

Conclusion– based on your discussion, form a fair and a balanced conclusion on the given issue.

Background:-

- Tax incentives essentially constitute a set of fiscal policy tools that governments use to achieve desired economic and social policy outcomes.
- Rough estimate by Action Aid (2013) pegs the incentives granted by developing countries from corporate income tax (CIT) at \$138 billion.

Tax incentives in India :-

- **India provides a large number of tax incentives for different objectives :-**
 - To promote exports, tax rebate on inputs are provided
 - To promote R&D, a super deduction of R&D expenditure is deductible in tax calculation.
 - For employment generation, a specified proportion of salaries of new employees can be additionally deducted.
 - Units operating in Special Economic Zones (SEZs) get tax refund for indirect taxes and to promote capital investment, accelerated depreciation is allowed. Some sectors, such as agriculture, infrastructure, green field manufacturing, warehousing, oil and gas, and renewable energy also benefit from tax incentives.

Why are tax incentives given :-

- The most common use of tax incentives is to promote investments.
- They serve to attract flow of capital in preferred locations and sectors of the economy or to undertake specific investment activities (e.g. financing infrastructure projects, research and development).
- Empirical research on tax incentives shows that they sometimes help in attracting FDI

Revenue forgone due to tax incentives :-

- Due to a prevalence of a large number of incentives, there is a difference between the statutory rate of tax and the effective rate of tax.
- The largest source of revenue foregone from incentives offered to businesses is accelerated depreciation.
- SEZ-related incentives form the next biggest component of revenue foregone from corporate taxes.
- There are a number of incentives related to SEZs however, close to 90 percent of SEZ-related revenue foregone comes from export-promoting incentives etc
- The large amount of revenue forgone related to R&D can be explained by MNCs establishing R&D centres in India, and development of niche industries which are R&D intensive, such as pharmaceutical and information technology.

Disadvantages of tax incentives :-

- The immediate and direct effect of tax incentives is **loss of potential revenues for governments, and a significant burden to developing countries.**
- Tax incentives **undermine government's efforts to raise adequate domestic resources to finance the delivery of essential services** and social protection at the scale and quality necessary to ensure that their citizens are able to fulfil unrealized rights, address inequality and meet sustainable development goals for all.
- Widespread use of tax incentives is also **linked to problems of corruption and poor governance.**
- **Granting tax incentives involves calibrating the design and scope of the tax system to favour certain groups** by partially waiving the collection of taxes otherwise due to encourage undertaking of certain behaviours, decisions or activities.
- Common reasons for failure of tax incentives are inappropriate justification for its use and faulty design, making them unnecessary, ineffective and not worth the foregone revenue by government.

What needs to be done?

- Given the high economic, political and social costs associated with tax incentives, **it is essential that tax incentives are underpinned by clear, transparent and credible legal, technical and political processes to deter rent-seeking behaviour.**
- Tax incentives must be justified by their clear link to national development strategy and positive contribution to specific economic and social policy outcomes .
- Laws should specify the scope and limitations of tax incentives.
- There must be rules setting clear criteria for determining which investments and firms are qualified to avail of tax incentives.



- There should be complete transparency on tax expenditures due to tax incentives at all levels of governance, and not just by the Union government
- Tax incentives must be subjected to review and monitoring by government. Right to Information must extend to firms availing of tax incentives.

Topic– Inclusive growth and issues arising from it.

Q) By recognising unpaid labour as genuine work, India will not only benefit in terms of its GDP figures but also empower its women. Analyze. (250 words)

Reference

Why this question

The women constitute half of our population and play a huge yet unrecognised role in our economy. In this context it is important to discuss how Indian economy can benefit from recognising unpaid labour of women as genuine work.

Directive word

Analyze-here we have to examine methodically the structure or nature of the topic by separating it into component parts, and present them as a whole in a summary.

Key demand of the question.

The question wants us to dig deep into the issue and highlight the unpaid work performed by Indian women and bring out how formal recognition of such work can benefit Indian economy and empower its women.

Structure of the answer

Introduction- write a few introductory lines about the unpaid work done by women in India. E.g These tasks can include domestic upkeep, cooking, cleaning and childcare, while a broader definition would also include the hours of emotional labour that goes into holding families together and putting up with patriarchal constructions of what women are expected to tolerate and expect.

Body-

Discuss in detail about such work. E.g

- *The fact that 49 per cent of women in a country of 1.3 billion people don't have their work accounted for in the annual GDP, throws up several problems.*
- *According to the Census in 2011, people engaged in household duties have been treated as non-workers, even when 159.9 million women stated that "household work" was their main occupation.*
- *While the global value of unpaid domestic labour by women hovers around 13 per cent, in India, the number is almost 40 per cent of its current GDP.*

Discuss how formal recognition of such work can help Indian economy as well as the women. E.g

- *In a report, the International Monetary Fund also suggested that if women's participation in the economy was raised to that of men, then India could grow its GDP by 27 per cent.*
- *Recognition is one of the most central processes in empowerment, and the recognition of their primary occupation as genuine work, that contributes not only to the family but to the welfare of the nation state as a whole, is such that it gives them a claim to equality within the patriarchal Indian household that only recognises the work done by men.*
- *It moves us towards a more holistic understanding of labour that isn't purely tied to the exchange value of a service on the market.*

Conclusion- based on your discussion, form a fair and a balanced conclusion on the given issue.

**Background:-**

- Unpaid labour does not only affect women, but it affects them the most. A large part of their work, from working for the household farm or business to domestic and caregiving work is delegitimised as women's work and is not considered 'real' work.
- The proportion of unpaid work per day is far higher for women than men globally, while in case of India on average 66 per cent of women's work is unpaid according to the WEF.
- According to the Census in 2011, people engaged in household duties have been treated as non-workers, even when 159.9 million women stated that household work was their main occupation.
- 49 per cent of women in India don't have their work accounted for in the annual GDP.
- The work done at home doesn't necessarily generate products and services for the market, economists often ignore it in their calculations and the result is that a massive portion of the work done by women in India goes unrecognised as labour and is treated as a duty
- A **UN report** shows that over 51% of the work done by women is unpaid, and is not counted in the nation's GDP and other statistics.

How recognising unpaid labour benefits India :-

- The value of unpaid domestic and care work done by women is *estimated* to be 13% of the global GDP.
- In a report, the International Monetary Fund also suggested that if women's participation in the economy was raised to that of men, then **India could grow its GDP by 27 per cent.**

How recognising unpaid labour empowers women :-

- Recognition is one of the most central processes in empowerment, and for more than 150 million women in the country, the recognition of their primary occupation as genuine work, that contributes not only to the family but to the welfare of the nation state as a whole, is such that it gives them a **claim to equality within the patriarchal Indian household that only recognises the work done by men.**
- It moves India towards a **more holistic understanding of labour** that isn't purely tied to the exchange value of a service on the market, **and recognises an extremely intimate form of labour that has proved essential to keeping the unit of the family intact and functional.**
- **Gender justice :-**
 - Once recognised as work, this arena of unpaid domestic labour that is dominated almost entirely by women can become one where **women can demand some degree of parity in terms of the time and energy expended on it.**
- Women could do more paid work and get more education if men did more unpaid work, or if both did fewer

What needs to be done :-

- Redistributing more unpaid work to men can happen through policies, like paid family leave.
 - Women are more likely to return to work after having a baby when they have paid leave, and men who take paternity leave spend more time on child care later.

Conclusion:-

- For real equality, unpaid domestic work needs to be legitimised and given due recognition. Only then can we expect equal participation in the workforce, and in the household.

Topic: Major crops cropping patterns in various parts of the country, different types of irrigation and irrigation systems storage, transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers

Q) While the cash-transfer model may be popular and politically rewarding, it is unlikely to solve the crisis in agriculture. Examine. (250 words)

Livemint

Why this question

This year's interim budget has pledged to provide cash transfers of Rs 6000 to farmers. Besides, various state governments have also launched similar programmes. In this context it is important to discuss the efficacy of such cash transfers in ameliorating the situation of the farmers.

Directive word

Examine- here we have to probe deeper into the topic, get into details, and find out the causes or implications if any.



Key demand of the question.

The question wants us to dig deep into the cash transfer schemes being initiated in several Indian states and also the central budget, and bring out the reasons as to why they are not enough to solve the agricultural crisis in India.

Structure of the answer

Introduction- write a few introductory lines about the Cash transfer schemes to Indian farmers. E.g mention the various state schemes and the announcement in the recent interim budget introduced by the centre.

Body-

Discuss in points as to why such schemes would not likely solve the agricultural crisis in the country. E.g

- The crisis in agriculture has continued to worsen with the latest estimates of inflation suggesting that the trend of decline in farm produce prices has continued unabated.
- Primarily because the crisis is not just of low incomes in agriculture.
- The genesis of the current crisis lies in the faulty and ad hoc export-import policy, lack of infrastructure and cartelisation and collusion in agricultural markets, which have prevented farmers from realizing the market prices for agricultural produce.
- It is the combination of these, along with the twin droughts of 2014 and 2015, which created the crisis in the first place.
- It is also true that the crisis worsened due to the sudden shocks of demonetization and the hasty implementation of goods and services tax, which affected the rural economy adversely.
- Cash transfers do nothing to resolve any of these, nor are they any guarantee of protection against unforeseen events, whether natural or policy induced.
- It is neither a substitute for the structural reforms needed in agriculture, nor does it adequately compensate the farmer for the risks and uncertainty of crop cultivation.
- The current crisis may have worsened due to the sharp fall in agricultural crop prices, but is finally a result of multiple failures of policy.
- But it is also a crisis which is caused by the failure of the non-farm sector in creating enough jobs as is evident from the deceleration in real wages in rural areas.

Conclusion— based on your discussion, form a fair and a balanced conclusion on the given issue.

Background:-

- The crisis in agriculture has continued to worsen with the latest trend of decline in farm produce prices. But with the worsening of the crisis, newer ways of providing relief to the farmers are being experimented with such as cash transfers are proposed for farmers.

Cash transfers in agriculture :-

- Bhavantar Bhugtan Yojana in Madhya Pradesh was sought to provide relief to farmers by providing the differential between MSPs and market prices.
- The Rythu Bandhu scheme of the Telangana government provides ₹4,000 per acre for every season to all the farmers of the state. Similar initiatives have also be framed in Jharkhand and Odisha.
- **Pradhan Mantri Kisan Samman Nidhi**
 - To provide an assured income support to the small and marginal farmers, the Government is launching the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)
 - Under this programme, vulnerable landholding farmer families, having cultivable land upto 2 hectares, will be provided direct income support at the rate of Rs. 6,000 per year.

**Benefits:-**

- **Past experiences:-**
 - Success of cash transfers for cooking gas, food and the rural jobs scheme also seem to have convinced the government on adopting the mechanism for agriculture.
- **Poverty reduction:-**
 - Cash transfer programmes have become an important tool of social protection and poverty reduction
 - It has immediate impact on reducing hunger and rural poverty.
 - They can help households to overcome credit constraints and manage risk.
- **Better use :-**
 - This can increase productive investment, increase access to markets and stimulate local economies.
 - Income support can be used to make a repayment or at least activate a bank account which can then receive a loan.
 - It can increase investment in agricultural inputs, including farm implements and livestock
- **Rural development:-**
 - It can serve as an important complement to a broader rural development agenda, including a pro-poor growth strategy focusing on agriculture.

Criticism:-

- **Cash transfers do not solve the following problems which are Theresa one for the current agrarian crisis**
 - The Agrarian crisis is not just of low incomes in agriculture. The genesis of the current crisis lies in the faulty and ad hoc export-import policy, lack of infrastructure and cartelisation and collusion in agricultural markets, which have prevented farmers from realizing the market prices for agricultural produce.
 - Cash transfers do nothing to resolve any of these, nor are they any guarantee of protection against unforeseen events, whether natural or policy induced.
 - Cash transfer is neither a substitute for the structural reforms needed in agriculture, nor does it adequately compensate the farmer for the risks and uncertainty of crop cultivation.
- **Regressive:-**
 - Except for the Krushak Assistance for Livelihood and Income Augmentation scheme , which offers some relief to the sharecroppers and landless labourers **most other schemes are regressive with amount of transfer proportional to the land owned.**
- **Finding beneficiaries is tough :-**
 - In sugarcane and cotton, much of the ground-level work is organised and in the hands of cooperatives, where the person who has the operational holding of land is well identified. **But in crops where the ownership holding is different from the operational holding, it might be**
 - In the absence of proper tenancy records, it will also benefit the absentee landlords.
 - It is no substitute for the lack of investment in agriculture, which has declined at 2.3% per annum in real terms
 - By taking away precious fiscal resources, it makes the farmer more vulnerable to both market as well as non-market induced risks.
- **Fiscal constraints to states:-**
 - The income transfer scheme will further erode the fiscal capacity of states.

Way forward :-

- For a long-term solution, the **government should first implement existing schemes, like it should give assured procurement** and marketing of all commodities having MSP.
- The **Swaminathan Committee in 2004** had recommended farmers be allowed to fix the price for their produce on their own (cost of production plus 50% as profit), keeping local factors in mind.
- Greater focus is required on **enhancing farmer loan repayment capacity via smooth supply and value chains, and better price realisations.**
- The government must focus on three things: **crop insurance, better irrigation and subsidised seed and fertilisers.**

Q) Analyze the schemes announced in the union Budget 2019-20 for improving the status of agricultural sector ? (250 words)

[Livemint](#)

[Financialexpress](#)



Why this question

The budget is very important for mains and prelims, which goes without saying. The highlights of the budget with respect to different sectors of the economy needs to be prepared. In this question, we focus on the measures taken in the budget for agricultural sector and the likely impact it would have.

Key demand of the question

The question expects us to discuss the measures taken in the budget for addressing the issues faced by farming sector. Thereafter we need to evaluate the measures by discussing its likely impact. Finally we have to provide a fair and balanced opinion.

Directive word

Analyze – When asked to analyze, you have to examine methodically the structure or nature of the topic by separating it into component parts and present them as a whole in a summary.

Structure of the answer

Introduction – Highlight that the farming sector has been plagued by issues and the union Budget has taken steps to address it.

Body

Highlight that India's agriculture sector accounts for close to 16% of the economy and employs almost 50% of the labour force.

Discuss the measures in the Budget

- Pradhan Mantri Kisan Samman Nidhi, an assured income support programme, for 120 million small and marginalized farmers with an outlay of ₹75,000 crore per year.
- Increased the allocation for Rashtriya Gokul Mission to Rs 750 crore in the current year itself. Announced setting up of "Rashtriya Kamdhenu Aayog" to upscale sustainable genetic up-gradation of cow resources and to enhance production and productivity of cows
- Proposed to provide the benefit of 2% interest subvention to the farmers pursuing the activities of animal husbandry and fisheries, who avail loan through Kisan Credit Card. Further, in case of timely repayment of loan, they will also get an additional 3% interest subvention

Discuss the likely impact of these measures.

Conclusion – give a fair and balanced opinion of the measures introduced and discuss how can we maximize benefit.

Background:-

- Agriculture has got an unprecedented 144 percent rise in allocation in the interim budget announced recently from Rs 57,600 crore in the 2018-19 budget estimates to Rs 1,40,764 crore in the interim budget. This took the share of the agriculture ministry in the total union budget to 5.2 percent

Schemes in the budget 2019-20 to improve the status of agricultural sector:-

- **Pradhan Mantri Kisan Samman Nidhi :-**
 - To relieve farmer distress the budget unveiled the **Pradhan Mantri Kisan Samman Nidhi, an assured income support programme**, for 120 million small and marginalized farmers with an outlay of ₹75,000 crore per year.
 - It provides support to small and marginal farmers who are largely involved in subsistence farming and struggles to invest in agriculture inputs or technology,
 - It will boost the rural consumption and positive for agriculture and allied sectors.
 - **Poverty reduction:-**
 - Cash transfer programmes have become an important tool of social protection and poverty reduction
 - It has immediate impact on reducing hunger and rural poverty.
 - They can help households to overcome credit constraints and manage risk.



- **Better use :-**
 - This can increase productive investment, increase access to markets and stimulate local economies.
 - Income support can be used to make a repayment or at least activate a bank account which can then receive a loan.
 - It can increase investment in agricultural inputs, including farm implements and livestock
- **Rural development:-**
 - It can serve as an important complement to a broader rural development agenda, including a pro-poor growth strategy focusing on agriculture
- **Criticism:-**
 - However, with an annual relief of only ₹6,000 per year, it may not make any meaningful impact.
 - **Cash transfer scheme such as PMKSN cannot be substituted for subsidies and other institutional support systems such as the National Food Security Act-powered public distribution system.** In fact, such cash transfer schemes could be counterproductive and may lead to more distress.
 - **Regressive:-**
 - Except for the Krushak Assistance for Livelihood and Income Augmentation scheme , which offers some relief to the sharecroppers and landless labourers **most other schemes are regressive with amount of transfer proportional to the land owned.**
 - **Finding beneficiaries is tough :-**
 - In sugarcane and cotton, much of the ground-level work is organised and in the hands of cooperatives, where the person who has the operational holding of land is well identified. **But in crops where the ownership holding is different from the operational holding, it might be**
 - **In the absence of proper tenancy records, it will also benefit the absentee landlords.**
 - **It is no substitute for the lack of investment in agriculture, which has declined at 2.3% per annum in real terms**
 - **By taking away precious fiscal resources, it makes the farmer more vulnerable to both market as well as non-market induced risks.**
 - **Fiscal constraints to states:-**
 - The income transfer scheme will further erode the fiscal capacity of states.
 - Kisan Sanmaan Nidhi scheme does not provide any relief to many actual cultivators such as tenants and share croppers as the cash transfer would go to owners even if they are not actual tillers of the land.
 - It also offers less effective coverage than the Odisha and Telangana income support schemes whose success inspired it.
- The **extension of 2% interest subvention to animal husbandry and fisheries farmers**, using Kisan Credit Card for loan, will be beneficial.
- Similarly, the **extension of 2% interest subvention for the full loan term to farmers seeking loan rescheduling on account of natural calamities**, will ease pressure faced by them. In case of timely repayment, they will get an additional 3% incentive for the entire period of reschedule of loans.
 - These measures initiated by the government to revive the agricultural economy will help fertilisers companies in the medium-term through higher demand.
- **Payment for indigenous urea has been hiked**, while for imports it has been maintained, which will be a positive for new urea projects,
- Announcement of **setting up a separate Department of Fisheries is positive for the aquaculture industry as it would lead to prioritisation and more focused follow up on the development of farmers.**
- **Loans availed through the Kisan Credit Card would give the farmers benefit of 2 per cent interest subvention** and will go some way towards easing the ongoing pricing pain for shrimp farmers.
- A fund of Rs. 60,000 crore is also being allocated to the Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA), more funds will be given if needed.
- **Rashtriya Kamdhenu Aayog** is also to be set up to upscale sustainable genetic up-gradation of cow resources and to enhance production and productivity of cows



- Increased the allocation for **Rashtriya Gokul Mission to Rs 750 crore** in the current year itself.

Other Constraints:-

- Increasing milk production, without its pricing being competitive and remunerative for farmers, may not do much benefit.
- Phosphate and potassic (P&K) fertiliser manufacturers will face pressure on margins, as the rise in raw material prices and rupee depreciation will necessitate higher pass through to the farmers.
- Amount provisioned for various agricultural schemes, such as the critical irrigation mission, is inadequate.
- Pradhan Mantri Krishi Sinchayee Yojana has always been underfunded, its allocation has seen no rise since its implementation in 2014-15. The budget estimate for 2019-20 for the scheme shows just a Rs 100-crore rise over last year's budget.

Way forward :-

- For a long-term solution, the **government should first implement existing schemes, like it should give assured procurement** and marketing of all commodities having MSP.
- The **Swaminathan Committee in 2004** had recommended farmers be allowed to fix the price for their produce on their own (cost of production plus 50% as profit), keeping local factors in mind.
- Greater focus is required on **enhancing farmer loan repayment capacity via smooth supply and value chains, and better price realisations.**
- The government must focus on three things: **crop insurance, better irrigation and subsidised seed and fertilisers.**
- Real need is to **expand the reach of farmers to institutional credit.**

Q) Farm diversification, which is often described as a strategy for increasing farm income in India, faces huge challenges. Discuss. (250 words)

Epw

Why this question

Farming in India is under huge environmental as well as economic threat and farm diversification is often proposed as a solution to increase incomes. In this context it is important to analyze the challenges involved in farm diversification in India.

Directive word

Discuss- this is an all-encompassing directive which mandates us to write in detail about the key demand of the question. we also have to discuss about the related and important aspects of the question in order to bring out a complete picture of the issue in hand.

Key demand of the question.

The question wants us to write in detail about the prospects of farm diversification in India and the challenges faced in that direction.

Structure of the answer

Introduction– write a few introductory lines about the farm diversification. E.g mention how farm diversification aims to bring benefits to the farmers- environmental conservation, diversification of income, hedging risks, participating in valuable supply chains etc.

Body-

Discuss the challenges faced in farm diversification in India. E.g

- *Agricultural pricing policies have barely looked beyond the populism of the minimum support prices (MSP) in the grain sector.*
- *The chances of realising the MSP, particularly at such high levels, are bleak unless backed by public procurement. And the government has already limited the procurement for the central pool to the extent of a state's public distribution system (PDS) requirement under the National Food Security Act (NFSA).*
- *The non-grain sector, on the other hand, is plagued by market inefficiencies and associated price risks.*



- *high returns in diversified agriculture are associated with high risks, and that 85% of the Indian farmers are bereft of any risk-hedging apparatus.*
- *Given that, when they operate in the “high-value” sector they can control only about a fifth of the final price of the produce, while the remaining four-fifths of the price are influenced by players with higher risk-taking abilities and hence more bargaining power.*
- *A blanket act covering livestock and agriculture.*
- *Lack of access to farm and non-farm credit.*
- *Lack of standards and quality checks in order to fetch a higher price in the international market etc.*

Conclusion- *based on your discussion, form a fair and a balanced conclusion on the given issue.*

Introduction:

- Diversification of farms is often suggested as a means for rapid rural development in India. **Small and marginal holdings** account for about **three-fourth of the total operational holdings** in the country, **operating over one-fourth of the total area**.
- Majority of small and marginal farmers cultivate mainly **low value, subsistence crops**. In the **absence of adequate farm and non-farm employment opportunities**, they are also forced to live below poverty line.

Body:

- Crop diversification is intended to give a wider choice in the production of a variety of crops in a given area so as to expand production related activities on various crops and also to lessen risk. Crop diversification in India is generally viewed as a shift from **traditionally grown less remunerative crops to more remunerative crops**. Often **low volume high-value crops** like spices also aid in crop diversification.
- **Higher profitability and also the resilience/stability in production** also induce crop diversification, for example sugar cane replacing rice and wheat. **Crop substitution and shift** are also taking place in the areas with **distinct soil problems**. For example, the growing of rice in high water table areas replacing oilseeds, pulses and cotton; promotion of soybean in place of sorghum in vertisols (medium and deep black soils) etc

The major problems and constraints in crop diversification are primarily due to the following reasons with varied degrees of influence:

- **Over 117 m/ha (63 percent) of the cropped area** in the country is completely dependent on **rainfall**.
- **Sub-optimal and over-use of resources like land and water resources**, causing a negative impact on the environment and sustainability of agriculture.
- Inadequate supply of seeds and plants of improved cultivars.
- **Fragmentation of land holding** less favouring modernization and mechanization of agriculture.
- Lack of access to farm and non-farm credit.
- Poor basic infrastructure like rural roads, power, transport, communications etc.
- **Inadequate post-harvest technologies and inadequate infrastructure for post-harvest handling** of perishable horticultural produce.
- Agricultural pricing policies have barely looked beyond the **populism of the minimum support prices (MSP) in the grain sector**
- The non-grain sector, on the other hand, is plagued by market inefficiencies and associated price risks. The most recent example being the plight of the dairy farmers, particularly in Maharashtra, who had to suffer price crashes due to supply bottlenecks
- The **price competition** among these large-scale players for domestic market share has pushed many small farmers out of business.
- 85% of the Indian farmers are bereft of any risk-hedging apparatus
- Very weak agro-based industry and a Weak research – extension – farmer linkages.
- Inadequately trained human resources together with persistent and large scale illiteracy amongst farmers.
- Host of diseases and pests affecting most crop plants.
- Poor database for horticultural crops.
- With the livestock and the fisheries sectors contributing almost 25% and 6% of the agricultural gross domestic product (GDP) respectively, there is a need for improving their outputs.



Considering the importance of crop diversification in the overall developmental strategy in Indian agriculture, the **Government of India** has taken several initiatives for agricultural development in general and crop diversification in particular. These initiatives are as follows:

- **Launching technology missions for the Integrated Development of Horticulture in the Northeastern Region:** The programme will establish effective linkages between research, production, extension, post-harvest management, processing, marketing and exports and bring about a rapid development of agriculture in the region.
- **Implementing PMFBY:** The scheme will cover food crops and oilseeds and annual commercial and horticulture crops.
- **Construction of Mega Food parks** in hub and spoke model to strengthen the supply chain from farm to fork.
- **Creation of Watershed Development Fund:** At the National level for the development of Rainfed lands.
- **Infrastructure Support for Horticultural Development** with emphasis on Post-harvest Management.
- **Strengthening Agricultural Marketing:** in the form e-NAM, GRAMs etc.
- **declarations of increased outlays for the Rashtriya Gokul Mission** and setting up of a **Rashtriya Kamdhenu Aayog** for cow welfare.

Way forward:

- **Innovative institutional mechanisms & structures:**
 - Diversification should be augmented through institutional innovations like contract farming, producers' companies, cooperatives and modern retail formats that engage a larger gamut of stakeholders.
 - In India, **farmer producer organisations (FPOs)** are witnessing impressive success stories and many small holder farmers have benefited from the model.
 - It is the FPO structure that has united small producers and given them the capacity to enhance their livelihoods through aggregation, development of market linkages and value-addition, thus helping them reap benefits of diversification.
 - The state of Karnataka has also initiated several programs that directly and indirectly support crop diversification in the state. Some of them include: (i) Launching of a program for promoting **Farm Producers Organizations in horticulture sector** (ii) **Weather-based crop insurance for horticulture crops** (iii) Promotion of **protected cultivation of high value vegetables** (iv) Establishment of **IFAB (International Flower Auction Bangalore)** for promotion of production of flower crops (v) Promotion of **green house cultivation of vegetables** etc have lead to diversification of farming.
 - SHGs can play a key role in introducing and implementing various activities such as: **Livestock farming, Vermicomposting, Flour mill/stores, Introducing new crops.**
- **Policy interventions:**
 - This is the core requirement for building upon the strengths of diversified agriculture, which India has already attained to quite an extent.
 - Government support in identifying **commodity-specific clusters, developing basic infrastructure and processing infrastructure, and encouraging entrepreneurial skills**, shall go a long way in providing sustainable livelihood.
 - Goods and services tax (GST) application needs to be uniform, easy to administer and incentivise processing over fresh produce. Also, farmers may be nudged to shift to a less water-intensive crop so as to reduce dependence on rain.
- **Technology and innovations:**
 - The scope of diversification should **expand to the wider dimension of value addition – collaborative researches in technology** are required to produce process-able grades of commodities.
 - **Specific clusters** need to be identified to produce such grades at a large scale. This shall not only have a far-reaching effect but also help the nation to curb imports of processed food.
 - **Localisation** is the key to achieving prolific results of diversification.
 - **Product innovations that use local resources** are best suited to adapt to any kind of agri practice and its value addition.
 - Innovative use of **ICT** in the Indian context, to **communicate weather-based information, new technologies available, extension services and market price alerts**, is key to determining risk mitigation.



- **Infrastructure development:**
 - Inadequate and skewed distribution of infrastructure such as road, power, market, pre- & post-harvest handling, and irrigation, are all major impediments for diversification.
 - Access to basic infrastructure shall boost entrepreneurial capacities of farmers to take up non-conventional activities and enhance their income.
- **Skill development:**
 - India has witnessed several initiatives in the past focusing on the agriculture domain.
 - However, with nearly stagnant agriculture growth, there is a clear need for a shift in the perspective of skill development, with a focus on sustainable rural livelihoods.
 - We need to look beyond the farm cycle and engage manpower in **value-added activities like processing, trade dynamics and building efficient marketing channels.**
 - This shall generate 'on farm' as well as 'off farm' livelihood options.
- **Sustainable risk management:**
 - The inefficient subsidy structures on the input and output sides of the value chain have been curtailing growth, ineffectively reaching beneficiaries and promoting unsustainable farm practices, thus disincentivising diversification and adding to the twin deficits challenge.
 - These challenges need to be overcome through a **prudent policy intervention.** Further, the entire paradigm of risk management for farmers **through warehouse receipt financing, crop and weather insurance as well as efficient price discovery/marketing infrastructure,** needs to be brought into the mainstream, and the entire policy of price support needs to be done away with.

Conclusion:

- Diversification has surely made its mark in select States, though **value addition** is still in its **infancy.** Further, many States are still outside the purview of mainstream diversification.
- The way forward to **develop sustainable livelihood for the Indian farmer** needs to be addressed through a **collaborative approach between the Government and industry,** for establishing a much larger and significantly more **efficient supply chain for value-added produce,** which in turn shall generate **sustainable livelihood opportunities.**

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

Q) Schemes to allow for clean energy penetration at a large scale are hinging on serious power sector reforms. Critically analyze in this context the success of UDAY? (250 words)

Reference

Why this question

The article discusses the problems faced by the discoms in India and analyzes how far Uday has been successful in addressing such challenges. This question would enable you to prepare in detail the problems faced by discoms in India and how far Uday has been successful.

Key demand of the question

The question expects us to highlight the issues faced by discoms in India which create hindrances in setting ambitious renewable energy targets and establish the need for power sector reforms. Thereafter, we need to highlight the role of Uday in addressing such challenges and examine how far has it been successful.

Directive word

Critically analyze – When asked to analyze, you have to examine methodically the structure or nature of the topic by separating it into component parts and present them as a whole in a summary. When 'critically' is suffixed or prefixed to a directive, all you need to do is look at the good and bad of something and give a fair judgement.

Structure of the answer

Introduction – Highlight that India requires to accelerate itself on the path of clean energy. But even before that it needs to work on deepening electricity penetration in the country for which power sector reforms are imperative.



Body

Discuss the issues plaguing power generation , transmission etc in India and why power sector reforms are required

Explain about the Uday scheme and discuss how successful has it been –

Bad Loans – The Banks have provided Loans to Public Sector Power Generation Companies which they failed to recover and hence this resulted in accumulation of Bad Loans in Sector.

b) Distribution Losses – Although UDAY succeeded in cutting down Distribution losses by around 21% , a Major share of Losses is still left which is a major challenge for DISCOMS.

- *Electricity Theft – Electricity Theft is not curbed completely and hence possess major challenge to DISCOMS.*
- *Metering and Billings – The inadequacy in Metering and Billing Process is a major challenge to DISCOMS in gaining Economic Stability.*

Discuss what more needs to be done

- *Strict Actions to curb Electricity theft and other actions that lead to Losses to DISCOMS.*
- *Integrating UDAY scheme with Make in India and Startup India to ensure overall Development.*
- *Integrating UDAY with KUSUM to increase amount of electricity to DISCOMS.*

Conclusion – Give your view and discuss way forward.

Background:-

- India has a 200-GW power system which is growing at a healthy pace, while dealing with technological, environmental and regulatory discontinuities. The need for continuous investment in conventional and renewable generation, as well as transmission infrastructure is necessary.

UDAY:-

- UDAY was launched in 2015 and is aimed at reviving electricity distribution companies (discoms), improving demand and, in the process, resolving the woes in the sector. Scheme aims at financial turnaround and revival of Power Distribution companies(DISCOMs) and ensures a sustainable permanent solution
- It allows power DISCOMs in selected states to convert their debt into state bonds as well as roll out number of measures to improve efficiency at power plants
- It Improves operational efficiencies of DISCOMs, Reduce of cost of power, Reduce interest cost of DISCOMs, Enforce financial discipline on DISCOMs.
- **Improve operational efficiency** by swapping of coal linkages, monitoring technical and commercial (AT&C) losses , smart metering and feeder separation in states

Performance of the scheme:-

- It took off well, **with a large number of states joining the scheme**. Several states took over the debt of their utilities, **improving their liquidity situation**. Anecdotal evidence also suggests an improvement in the power supply situation.
- **Power transmission**
- Government's UDAY scheme has helped debt-laden discoms of 24 states to reduce losses to Rs 369 billion in 2016-17 from Rs 515.9 billion in the previous financial year.
 - The participating states have achieved an **improvement of one per cent in Aggregate Technical & Commercial (AT&C or distribution) losses** and Rs 0.17 a Unit in the gap between Average Cost of Supply and Average Revenue realised in 2016- 17
- UDAY can smoothen the power off take distribution process.
- **It talks about cost-side efficiency such as immediate reduction of interest service burden**, reduction in fuel cost through coal swapping, time-bound loss reduction, etc.
 - **Reduction in interest cost has benefitted discoms finances**
- On the revenue side, **it talks about a strict discipline of quarterly fuel cost adjustment**, annual tariff increase, taking regulators on board and finally including discom losses in the FRBM limits for the states.
- **UDAY has potential to unclog the entire power chain as operational efficiency improvements to reduce the distribution losses from around 22 per cent to 15 per cent** and eliminate the gap between average revenue and average cost by FY19.



Why there is a need for power reforms :-

- **Issues with discoms :-**
 - **Distribution Losses :-**
 - Although UDAY succeeded in cutting down Distribution losses by around 21% , a Major share of Losses is still left which is a major challenge for DISCOMS.
 - **Electricity Theft :-**
 - Electricity Theft is not curbed completely and hence possess major challenge to DISCOMS.
 - **Metering and Billings :-**
 - The inadequacy in Metering and Billing Process is a major challenge to DISCOMS in gaining Economic Stability.
- **Failure of UDAY:-**
 - Three years on, the results of UDAY remain unclear and questionable. Many tasks are running behind schedule like smart meter installations.
 - AT&C losses remain high, with some states indicating losses of over 40 per cent, a far cry from the 15 per cent target.
 - The gap between average cost of supply (ACS) and the average revenue realised (ARR) continues to be high in most states.
 - Much of the NPA (non-performing asset) or bad loan resolution in the power sector is beyond UDA
 - Over and above the prevailing maladies in the distribution system **rising share of renewable energy (RE) is increasing the average cost of supply, as it is displacing consumption of low-cost coal.**
 - The bonds issued are essentially held by the same entities that had lent funds to the State electricity boards (SEBs).
 - The interest received is lower by at least 4-6 per cent; this means that there is a loss of income. Intuitively, it can be seen that every ₹1 lakh crore of UDAY bonds issued involves a loss of up to ₹6,000 crore for banks and FIs that have lent money to them.
 - There is no guarantee that there will not be future losses as there is no retribution if the State electricity boards choose not to reform. In fact, this has been kept out of the purview of the scheme.
 - By also mandating that State governments have to progressively take over the losses of their SEBs, **the Centre has put the onus on the States to deal with the problem.**

Way forward:-

- Discom business needs to be fundamentally restructured.
- Governance needs to be improved with greater resilience to political influence.
- Robust mechanisms need to be put in place to ensure tariff rationalisation and follow-through on subsequent increases.
- Market-friendly electricity reforms need to be introduced and enforced. This includes expanding the role of short-term markets, as well as strict enforcement of PPAs to assure investors and developers of the legal sanctity of contracts signed with discoms.
- Streamlining the open access process, with the fair application of additional surcharges will boost the demand for renewable energy from the commercial and industrial sectors.
- Discoms will have to be pushed harder to invest in technical solutions and infrastructure upgrade such as feeder separation, installing smart meters and undertaking detailed data collection and analysis.
- Strict Actions to curb Electricity theft and other actions that lead to Losses to DISCOMS.
- Integrating UDAY scheme with Make in India and Startup India to ensure overall Development.
- Integrating UDAY with KUSUM to increase amount of electricity to DISCOMS.

Q) Critically analyze the progress made in creating a more efficient transport infrastructure in the country ? (250 words)

[Livemint](https://www.insightsias.com/livemint)

Why this question

The article talks about the progress made in creating an efficient transport infrastructure in the country. One of the chief factors responsible for the takeoff of accelerated growth in the country is on account of poor quality of transport infrastructure. Progress made in this regard would have a key role on taking India to double digit growth. Hence this question.



Key demand of the question

The question expects us to bring out why focussing on strengthening the transport infrastructure of the country is important. Thereafter, we need to highlight the progress made and the issues still in strengthening the transport infrastructure of the country. Finally, we need to give our view on the progress made and discuss steps for further improvement.

Directive word

Critically analyze – When asked to analyze, you have to examine methodically the structure or nature of the topic by separating it into component parts and present them as a whole in a summary. When ‘critically’ is suffixed or prefixed to a directive, all you need to do is look at the good and bad of something and give a fair judgement.

Structure of the answer

Introduction – Highlight that investments in infrastructure equal to 1% of GDP will result in GDP growth of at least 2% as infrastructure has a “multiplier effect” on economic growth across sectors. Hence the government has focussed on strengthening the same.

Body

Highlight the reasons why focussing on transport infrastructure is critical (in brief)

Multiplier effect

- Boost manufacturing thus assist in achieving targets under make in India
- Enhance public investment and associated Benefits
- Highlight the progresses made in creating an efficient transport infrastructure in the country
- Talk about mega projects like Bharatmala and sagarmal
- Pace of construction of roads and successful implementation of PPP projects
- Measures taken to enhance road safety
- Technologically sound projects undertaken etc

Discuss the challenges still

- Highlight that Bharatmala project has been hit by delays and cost overruns as per an NHAI report
- Implementing the kelar committee report for PPP sector removed several bottlenecks but challenges remain
- Train routes remain crowded etc

Conclusion – give your view and discuss way forward.

Introduction:

Infrastructure is a key driver of the overall development of Indian economy. It is seen that investments in infrastructure equal to 1% of GDP will result in GDP growth of at least 2% as infrastructure has a “**multiplier effect**” on economic growth across sectors. The recent headway made in developing transport infrastructure will prove to be the biggest enabler for growth.

Body:

The reasons for focussing on transport infrastructure is critical because:

- Infrastructure development helps in **poverty reduction** due to its high employment elasticity leading to huge job creation capabilities.
- It also has the **trickle-down effect** as better transportation infra can lead to access to education, health and other basic necessities.
- **Increasing the manufacturing growth** as there is better connectivity, easier movement of goods and services, facilitating private investments



- It reduces the regional and inter-state disparities and leads to a balanced economic growth by regional equality.
- Infra sector has huge spill-over effects on other sectors of economy. It has money-multiplier effect too.
- Better quantity and quality of infrastructure can directly raise the productivity of human and physical capital and in turn growth of nation.

The progresses made in creating an efficient transport infrastructure in the country are

- At the highest ever pace of construction, more than 35,000 km of national highways has been built in last four and a half years.
- World-class expressways such as the Eastern Peripheral Expressway and Western Peripheral Expressway.
- Technologically sound projects which are engineering marvels such as the Dhola-Sadiya Bridge, Chenani Nashri Tunnel and Bogi-Beel bridge.
- The **Bharatmala Pariyojana** is unique and unprecedented in terms of its size and design, as is the idea of **developing ports as engines of growth under Sagarmala**.
- The development of **111 waterways** for transport, **FASTags** for quicker toll payment and movement of vehicles on highways.
- The promotion of alternative fuels such as **ethanol, methanol, biofuels, and electricity**, as well as innovative modes of travel such as seaplanes and aeroboats. The concept of '**waste to wealth**' is being employed for generating alternative fuels.
- Measures are taken to enhance road safety like the **Motor Vehicles Amendment Bill, The Good Samaritan law etc, reducing congestion and pollution levels and providing roadside amenities**.
- Connectivity to our neighbouring countries using an optimal mix of roads and waterways lie Afghanistan and beyond through Chahbahar, or Bangladesh, Myanmar and Thailand through upcoming highways and waterways.
- A memorandum of understanding (MoU) has been signed with Austrian ropeway company Doppelmayr for building ropeways through congested cities and hilly areas.

However, there are still challenges which need to be tackled.

- **Delay in Implementation and execution:** While issues around land acquisition and the time required for approvals have seen improvement over the years, India needs to ensure that such problems continue to receive constant attention.
- **Environmental Impact Assessment:** Environmental safeguards and guidelines have proven to be one of the major reasons for delay in infrastructure projects, like roads and ports.
- Given the complexity of infrastructure assets, a "**one size fits all**" solution will not work. Different models of **PPP ownership** like Hybrid Annuity, BOT needs to be tried.
- The **capital investments in infra projects are huge**, with the **NPA crisis** seen across public sector banks, credit availability has become difficult. This has in turn lead to **twin-balance sheet syndrome** with the infrastructure companies also defaulting on their payments.
- **Regulatory issues: Lack of co-ordination between various Government agencies** affecting the ease of doing business due to delayed clearances and objections.
- **Absence of a proper dispute resolution mechanism** between private players and government agencies leading to pendency of cases in courts as well as the assets in limbo.
- **Poor pre-construction planning:** Due to the already adverse effect of various impediments like land acquisition, statutory approvals, delayed financial closure, etc. the pre-construction phase of infrastructure projects is pretty long.
- Other challenges include **Geographical** as some regions are unsuitable for infra projects, **Ethnic**, etc.

Conclusion:

- An efficient transport infrastructure is the biggest enabler for growth. India's growth story should no longer be impeded by a lack of efficient transport infrastructure, and the fruits of this growth should reach everyone in the remotest part of the country.



Topic: Science and Technology- developments and their applications and effects in everyday life

Q) India's new drone policy is shortsighted. Critically comment. (250 words)

Reference

Why this question

The article does an in-depth analysis of India's drone policy by getting into its pros and cons along with suggestions regarding what would work in Indian milieu. Drone policy is an issue of importance and has the potential to act as a catalyst for this nascent industry in India.

Key demand of the question

The question expects us to discuss the pros and cons of India's drone policy and expects us to provide a fair and balanced personal opinion over the merits of the policy.

Directive word

Critically comment – When you are asked to comment, you have to pick main points and give your 'opinion' on them based on evidences or arguments stemming from your wide reading. Your opinion may be for or against, but you must back your argument with evidences. When 'critically' is suffixed or prefixed to a directive, all you need to do is look at the good and bad of something and give a fair judgement.

Structure of the answer

Introduction – Discuss about the evolution of India's drone policy

Body

Discuss the key points of India's drone policy

- DGCA has defined remotely piloted aircraft (RPA) as an unmanned aircraft piloted from a remote pilot station

The DGCA has segregated drones into five different categories

- Nano : Less than or equal to 250 grams.
- Micro : From 250 grams to 2kg.
- Small : From 2kg to 25kg.
- Medium : From 25kg to 150kg.
- Large : Greater than 150kg.

All drones, other than in the nano category, shall apply to DGCA for import clearance and based on that Directorate General of Foreign Trade shall issue license for import of RPAS.

Operators of civil drones will need to get a permit from the DGCA. There are exceptions for:

- Nano RPA operating below 50 feet (15 m) in uncontrolled airspace / enclosed premises.
- Micro RPA operating below 200 feet (60 m) in uncontrolled airspace / enclosed premises – but will need to inform local police 24 hours prior.
- RPA owned and operated by NTRO, ARC and Central Intelligence Agencies but after intimating local police.

Discuss the pros and cons of the policy

- While the new drone policy establishes an intricate system of application and approval procedures, it is lacking when it comes to thorough monitoring of drones. It also ignores the implications of free movement of smaller drones, which have been exempted from many of the regulatory procedures.
- Exceptions to permit criteria for specific sized drones are likely to cause a mushrooming of drone operators. In that event, how will the government monitor all drones flying below 15 meters



- *Risk of unethical activity in high rise cities etc*

Conclusion – Give a fair and balanced opinion and give suggestions.

Background:-

- With the publication of the drone regulations in late August, the Ministry of Civil Aviation has attempted to give some structure to the development of drone infrastructure in India.

New frame work for drones:-

- The Director General of Civil Aviation has finally announced its policy for remotely piloted aircraft or drones. Set to come into effect from December 1, 2018, **the new policy defines what will be classified as remotely piloted aircraft, how they can be flown and the restrictions they will have to operate under.**
- The DGCA has **defined remotely piloted aircraft (RPA)** as an unmanned aircraft piloted from a remote pilot station.
 - The remotely piloted aircraft, its associated remote pilot station(s), command and control links and any other components forms a Remotely Piloted Aircraft System (RPAS).
 - Also, as per the civil aviation requirements issued under the provisions of Rule 15A and Rule 133A of the Aircraft Rules, 1937 these RPAs will need a Unique Identification Number (UIN), Unmanned Aircraft Operator Permit (UAOP) and need to adhere to other operational requirements.
- **The DGCA has segregated drones into five different categories**
 - i) Nano : Less than or equal to 250 grams.
 - ii) Micro : From 250 grams to 2kg.
 - iii) Small : From 2kg to 25kg.
 - iv) Medium : From 25kg to 150kg.v) Large : Greater than 150kg.
 - All drones, other than in the nano category, shall apply to DGCA for import clearance and based on that Directorate General of Foreign Trade shall issue license for import of RPAS.
- **Unmanned aircraft operator permit:-**
 - Operators of civil drones will need to get a permit from the DGCA. There are exceptions for:
 - i) Nano RPA operating below 50 feet (15 m) in uncontrolled airspace / enclosed premises.
 - ii) Micro RPA operating below 200 feet (60 m) in uncontrolled airspace / enclosed premises but will need to inform local police 24 hours prior.
 - iii) RPA owned and operated by NTRO, ARC and Central Intelligence Agencies but after intimating local police
 - **The DGCA has to issue the UAOP within seven working days provided all the documents are complete.**
 - This UAOP shall be valid for five years and not transferrable.
- **Who can fly?**
 - The policy also stipulates that RPAs shall be flown only by someone over 18 years of age, having passed 10th exam in English, and undergone ground/ practical training as approved by DGCA.
 - Under the new framework, civilian users seeking UIN/UAOP have to be Indian citizens.
 - Companies seeking permits for commercial use must be registered in India, with two-thirds of the board members, including the chairman, being Indian nationals. Their primary place of business must be India and “substantial ownership” and this has not been defined must be resting with Indian nationals.
- **The basic operating procedure will restrict drone flights to the daytime only and that too within Visual Line of Sight (VLOS).** This applies to all categories.
- Also, along with other SOPs, the **DGCA has clarified that no remote pilot can operate more than one RPA at any time.** Manned aircraft will also get priority. There can't be any human or animal payloads, or anything hazardous. It cannot in any manner cause danger to people or property. **An insurance will be mandatory to cover third-party damage.**
- **Where can drones not be flown?**
 - RPAs cannot be flown within 5km of the perimeters of the airports in Mumbai, Delhi, Chennai, Kolkata, Bengaluru and Hyderabad and within 3km from the perimeter of any other airport.
 - It cannot fly within permanent or temporary Prohibited, Restricted and Danger Areas and within 25km from international border which includes the Line of Control (LoC), Line of Actual Control (LAC) and Actual Ground Position Line (AGPL).



- It cannot fly beyond 500 m into sea from the coast line and within 3 km from perimeter of military installations.
- It also cannot be operated from a mobile platform such as a moving vehicle, ship or aircraft.
- Eco-sensitive zones around National Parks and Wildlife Sanctuaries are off-limits without prior permission.
- Violations will be acted on under relevant sections of the IPC and the Aircraft Act 1934.
- **Imported models:-**
 - India is one of the largest importer of drones barring those in the lowest weight category, as per the DGCA classification, must get an import clearance from the DGCA, and subsequently, an import licence from the directorate general of foreign trade.

Benefits of the policy:-

- **Setting up a legal framework for commercial use of drones could help in developing the drones market and encourage investments for local production.**
 - According to an estimate by EY and industry chamber Federation of Indian Chambers of Commerce and Industry, the adoption of drones is increasing in India and the projected market size is \$885.7 million by 2021.
- Drones are also not allowed to fly above the obstacle limitation surfaces of an operational aerodrome and this has been prescribed to avoid interference with the flight plan of airlines.
- India is one of the largest importers of drones. The Drone Policy is aimed at regulating the practice of civilians flying drones in India.
- The drone market in India holds the potential of hitting over \$1 trillion.
- The guidelines would help foster technology and innovation in the development of drones.
- The regulations will encourage a vast Made in India drone industry
- It will place the country among the global leaders in drone technology.
- The policy will usher in a new idea of “drone micro-entrepreneurs.”
- The commercial drone industry could create jobs for Indian youth.
- Drones can also contribute to the export market.

How it might not reduce red tape:-

- **Lengthy definitions:-**
 - The abbreviations themselves are very long.
- **Complicated division of categories:-**
 - There is a long list of documentation including security clearances from the Ministry of Home Affairs (MHA) in several cases for all categories
 - Once the UIN is obtained, operators get to move to the next step of having to apply for an Unmanned Aircraft Operator Permit (UAOP), implying more forms, more annexures and more submissions.
 - Even to fly a micro drone below 200 ft, users have to intimate the local police station 24 hours prior.
- **Manufacturers of drones as well as technologists and researchers making applications using drones have to test fly these frequently**, often several times a day.
- With so many government authorities involved in allowing permission and keeping an eye, it is inevitable that operators could be slapped easily with real and perceived violations
- Regulation provides a list of identified areas for testing and demonstration. Flying drones in these areas comes with less paperwork. However, **the locations provided are so far from technology and development hubs that it is unclear how practical these will be.**
- **Other concerns:-**
 - There are some reasonable restrictions buffer zone and no-fly restrictions around airports and certain government facilities, including military and strategic ones.
 - Mandating all drones must fly within the visual line of sight of the remote pilot, placing explicit restrictions on dropping and discharging substances without prior permission, the numerous and complicated police approval requirements, etc, will all prove to be hurdles for efficient commercial application.
 - The ban on substance discharge without prior permission means that India won't see the same farm applications drones are being put to in other countries like France where fertiliser and pesticide application over cropped area is carried out via drones.
 - Requiring police clearance for every planned flight 24 hours prior to flight will prove a regulatory headache for delivery services

**Way forward:-**

- India must also examine prevailing policy mechanisms in other countries to adopt their best practices as it formalises its regulatory framework. However, a point to be underlined is that guidelines alone are not sufficient so the key is ensuring implementation and compliance.
- Flying drones safely in India will require research and development to understand how they can be best used in India's unique landscape.
- The government needs to create the right ecosystem for drone operations to add to the economy's automation dividend.

Q) The concept of social media democracy is a myth because of its unequal architecture. Comment. (250 words)

[Epw](#)

[Reference](#)

Why this question

Recently Indian Parliamentary forum has summoned Twitter CEO and in the recent past Facebook CEO was summoned by the US parliament. In this context it is important to discuss the democratization of social media and the myth of digital democracy.

Directive word

Comment- here we have to express our knowledge and understanding of the issue and form an overall opinion thereupon.

Key demand of the question.

The question wants us to dig deep into the issue of digital democracy and the efforts to democratize the social media and bring out why the same is a myth because of the unequal digital architecture.

Structure of the answer

Introduction- *write a few introductory lines about the recent attempts of the world to democratize social media.*

Body-

Discuss what do you understand by democratization of social media. E.g creating social media as an institution of political activism and participation; giving political voice to the social media users; providing information and initiating dialogue/ discussion among social media users around a policy/ welfare measure etc.

Discuss why social media democracy is a myth. E.g

- *We tend to presume that the internet is an inherently equalising space, but why do some voices get amplified, while others remain unheard*
- *When anonymous private entities with high capital can pay for more space for their opinions, they are effectively buying a louder voice.*
- *Not every voice on the internet commands the same kind of audience. If political discourse in the digital sphere is a matter of out-shouting one's opponent till an election is won, then the quality of politics suffers.*
- *Voices from the grass roots do not have the volume to compete with the kind of resources that larger political parties can employ for mobilising the vote bank.*
- *We can scrutinise expenditure of political parties on social media, but can we scrutinise the money spent by individuals at the behest of political parties? These nebulous connections within the architecture of social media platforms have enabled political parties to meet the dual goals of profitability and popularity etc.*

Conclusion— *based on your discussion, form a fair and a balanced conclusion on the given issue.*

**Introduction:**

- Social Media Democracy relates to treating social media as an institution of political activism and participation; giving political voice to the social media users; providing information and initiating dialogue/ discussion among social media users around a policy/ welfare measure.

Body:

- Social Media is multilingual, multicultural and inclusive, and allows equal opportunities for all, irrespective of class, creed, race, religion, sex, age or financial resources. It provides a platform for the citizens to express their views to the State.

Example: social media touted as a revolution in democracy lead to events like arab spring, Nirbhaya agitations, MeToo movement etc. It gave an impression that all are equal.

However, the concept of social media democracy is still a myth due to

- **Inequality:** The sheer sizes of the companies make them unequal in the social media space. This lets the bigger conglomerates to buy more ads, hire trolls, and manipulate public opinion through massive promotions. Example: Cambridge analytica, facebook's free internet initiative Internet.org which was against net neutrality principles.
- **Targeted propaganda:** Democracy has been reduced to an advertisement campaign. The business conglomerates owned or tied up with political parties influence the views of the people by targeting their audience. **Algorithmic filtering** have created the **cycle of enforcing and reinforcing belief systems** and ensuring that we don't open our minds to diverse opinions.
- **Fake News:** The issue of fake news has turned out to be a global menace. It has its role in **deciding result of elections** (Example: USA) to **polarization of societies to communal riots to even crumbling the economies**. Tolerance and harmony are victims of the new social media age.
- **Non-Utilitarian:** The anonymity that the internet lends was supposed to aid freedom of speech and, thereby, help democracy thrive. But, **political elites** have managed to design a grim nexus between anonymity, capital, and technology to influence public opinion, promote political agendas, and disseminate fake and misleading news and information.
- **Digital Divide:** the lack of access to social media to many is itself a witness that social media democracy is a myth. **Weaker sections of the society** are still left voiceless on the Social Media.
- The features of **openness, obscurity, and anonymity** that once gave strength to marginalized communities are now giving room for mean intentions to grow.

Conclusion:

- Although procedural democracy may improve, substantive democracy where informed choices are made by citizens on issues is being eroded. Social media is a **tool for empowerment**, especially for a country like India where **70% of the population is yet to get online** and leverage the opportunities it has to offer. The need of the hour is to make necessary changes, pledge by facebook recently to address these issues is a step in the right direction.

Q) There is a need for adequate legal, organisational framework to regulate bias in algorithms, In case of India. Critically analyze. (250 words)

[Indianexpress](https://www.indianexpress.com)

Why this question

Today the rise of algorithms and the AI is being seen inevitable. In this context it is important to discuss the need for adequate institutional framework to regulate inherent bias in algorithms and AI.

Directive word

Critically analyze- here we have to examine methodically the structure or nature of the topic by separating it into component parts, and present them as a whole in a summary. based on our discussion we have to form a concluding opinion on the issue.

Key demand of the question.

The question wants us to look deeper into the inherent bias in algorithms and bring out why there is a need for adequate legal, organizational framework in India to take care of the algorithm bias.



Structure of the answer

Introduction– write a few introductory lines about the rise of AI and algorithms. E.g The reasons for the increasing reliance on algorithms are evident. First, an algorithm can make decisions more efficiently than human beings, thus indicating its superiority to human rationality. Second, an algorithm can provide emotional distance — it could be less “uncomfortable” to let a machine make difficult decisions for you.

Body-

Discuss about the bias in algorithms. E.g

- A machine learning algorithm is designed to learn from patterns in its source data. Sometimes, such data may be polluted due to record-keeping flaws, biased community inputs and historical trends.
- Other sources of bias include insufficient data, correlation without causation and a lack of diversity in the database. The algorithm is encouraged to replicate existing biases and a vicious circle is created.
- Bias can lead algorithms to make unfair decisions by reinforcing systemic discrimination. For example, a predictive policing algorithm used for foretelling future crimes may disproportionately target poor persons etc.
- Bring out the need for an adequate legal and organizational framework to tackle the issue. E.g
- The extant law in India is glaringly inadequate. Our framework of constitutional and administrative law is not geared towards assessing decisions made by non-human actors.
- Further, India has not yet passed a data protection law and the existing SPDI rules issued under the IT Act, 2000 do not cover algorithmic bias.
- The first step to a legal response would be passing an adequate personal data protection law.
- The right to the logic of automated decisions can be provided to individuals. Such a right will have to balance the need for algorithmic transparency with organisational interests.
- A general anti-discrimination and equality legislation can be passed, barring algorithmic discrimination on the basis of gender, caste, religion, sexual orientation, disability etc in both the public and private sectors etc.

Conclusion– based on your discussion, form a fair and a balanced conclusion on the given issue.

Introduction:

- An Algorithm is merely a set of instructions that can be used to solve a problem. The reasons for the increasing reliance on algorithms are evident. First, an algorithm can make decisions more efficiently than human beings, thus indicating its superiority to human rationality. Second, an algorithm can provide emotional distance — it could be less “uncomfortable” to let a machine make difficult decisions for you.

Body:

Algorithms and AI in governance:

- The use of AI in governance in India is still nascent.
- However, this will soon change as the use of machine learning algorithms in various spheres has either been conceptualised or has commenced already.
- For example, the Maharashtra and Delhi police have taken the lead in adopting predictive policing technologies.
- Further, the Ministry of Civil Aviation has planned to install facial recognition at airports to ease security.

The bias in algorithms:

- The bias may often be **concealed** until it affects a large number of people.
- There is a need to **examine their potential** for bias as algorithms are being used to make evaluative decisions that can negatively impact our daily lives.
- Algorithms are also **dictating the use of scarce resources for social welfare**.



- A machine learning algorithm is **designed to learn from patterns in its source data**. Sometimes, such **data may be polluted** due to **record-keeping flaws, biased community inputs and historical trends**.
- Other sources of bias include **insufficient data, correlation without causation and a lack of diversity in the database**. The algorithm is encouraged to replicate existing biases and a vicious circle is created.
- Algorithms are **premeditated to differentiate between people, images and documents**. Bias can lead algorithms to make **unfair decisions by reinforcing systemic discrimination**.
- For example, a predictive policing algorithm used for foretelling future crimes may disproportionately target poor persons. Similarly, an algorithm used to make a hiring call may favour an upper-caste Hindu man over an equally qualified woman.

The need for an adequate legal and organizational framework to tackle the issue:

- The extant law in India is glaringly inadequate.
- Our framework of constitutional and administrative law is not geared towards assessing decisions made by non-human actors.
- Further, India has not yet passed a data protection law.
- The **draft Personal Data Protection Bill, 2018**, proposed by the **Srikrishna Committee** has provided the rights to confirmation and access, sans the right to receive explanations about algorithmic decisions.
- The existing rules issued under the IT Act, 2000 do not cover algorithmic bias.
- High digital illiteracy can further exacerbate the lurking danger and increase the inequality between rich and poor.

Way forward:

- Possible solutions to algorithmic bias could be legal and organisational.
- The first step to a **legal response** would be passing an adequate **personal data protection law**. The draft law of the **Srikrishna Committee** provides a framework to begin the conversation on algorithmic bias.
- The **right to the logic of automated decisions** can be provided to **individuals**. Such a right will have to balance the need for algorithmic transparency with organisational interests.
- Second, a **general anti-discrimination and equality legislation** can be passed, barring algorithmic discrimination on the basis of gender, caste, religion, sexual orientation, disability etc in both the public and private sectors.
- Organisational measures can be pegged to a specific legislation on algorithmic bias. In the interests of transparency, entities ought to **shed light on the working of their algorithms**. This will entail a move away from the current opacity and corporate secrecy.
- **Mandating accountability from developers and users** is expedient. Developers should design fair algorithms that respect data authenticity and account for representation.
- Organisations could develop **internal audit mechanisms** to inspect whether the algorithm meets its intended purpose, and **whether it discriminates between similarly placed individuals**. Organisations could also **outsource the auditing to certified auditors**.
- Entities relying on evaluative algorithms should have **public-facing grievance redressal mechanisms**. An aggrieved individual or community should be able to **challenge the decision**.
- Finally, the use of algorithms by government agencies may require **public notice to enable scrutiny**.

Conclusion:

- Considering their pervasiveness, algorithms cannot be allowed to operate as unaccountable black boxes.
- The law in India, as well as companies reaping the benefits of AI, must take note and evolve at a suitable pace.

Topic: Awareness in the fields of IT, Space, Computers, robotics, nanotechnology, biotechnology and issues relating to intellectual property rights.

Q) Gaganyaan mission of ISRO is an indication that there is a marked strategic shift in India's approach to space. Examine. (250 words)

Reference

Why this question

ISRO has announced about its manned space mission which highlights the progress made by ISRO. The article delves into the strategic shift in India's approach to space and point to the process of maturing of ISRO as a global player in the space arena. The question would help you prepare on Indian achievements in space arena.



Key demand of the question

The question expects us to explain about the Gaganyaan mission and how this mission marks a strategic shift. We need to discuss the purpose for which ISRO was formed and how the space agency has taken small steps so far and is on the cusp of something big now. We need to provide our opinion on the strategic shift and discuss way forward.

Directive word

Examine – When you are asked to examine, you have to probe deeper into the topic, get into details, and find out the causes or implications if any.

Structure of the answer

Introduction – Explain about Gaganyaan mission.

Body

Discuss what the Gaganyaan mission signifies – strategic shift in India's approach to space and point to the process of maturing of ISRO as a global player in the space arena.

Highlight about the role of ISRO as per Vikram sarabhai's mission and how ISRO has worked hard so far to realise that.

Discuss about the bigger ambitions of ISRO and examine what it means for India and ISRO.

Conclusion – finally, we need to provide a fair and balanced opinion and discuss way forward.

Background :-

- India's first Indian human mission Gaganyaan will be launched by Indian Space Research Organisation (ISRO) by 2022.

Gaganyaan mission :-

- Two unmanned Gaganyaan missions will be undertaken prior to sending humans. The total programme is expected to be completed before 2022 with first unmanned flight within 30 months.
- The mission is estimated at 9000 crore.
- It would raise scientific and technological temper across the country and inspire youngsters.

ISRO approach so far :-

- Through out ISRO's journey, it has upheld its mission of bringing space to the service of the common man, to the service of the nation.
- In this process, ISRO has become one of the six largest space agencies in the world
- It has improvised and developed technology, launched several indigenously-created vehicles into space.

How it shows a strategic shift in approach :-

- The mission points to the process of **maturing of ISRO as a global player in the space arena**. Clearly, the agency has recognised the need for human missions as a worthwhile goal to pursue over the long-term as a logical extension of its activities till now.
- After having followed Sarabhai's vision of using space technology for solving nations problems for decades during which ISRO contributed immensely to nation's development, the agency has finally **decided to turn the "fantasy" of a manned space flight into reality**.
- This will be the first **human mission indigenously developed by ISRO**, though there have been Indian astronauts who have been to space earlier.
- If ISRO executes Gaganyaan perfectly, then there **would be a paradigm shift in the way the world looks at India's capabilities in terms of space exploration**. The success of Gaganyaan can prove **India's ability to develop complex technologies** and would establish ISRO as a major space power.
- All the missions so far, including the Mars and the Moon missions, did not involve bringing back the spacecraft into earth's atmosphere which is not the case with gaganyaan mission
- With Aditya mission ,Mars and Venus missions in future ISRO is moving towards greater glory in the space race.
- When it achieves the mission, **India would be the fourth nation to circle Earth after the Soviets, the Americans and the Chinese**.
- Employment:-**
 - The mission would create 15,000 new employment opportunities, 13,000 of them in private industry.



Topic: Conservation, environmental pollution and degradation, environmental impact assessment, Disaster and disaster management.

Q) St. Petersburg declaration has been unable to achieve the goals for tiger conservation set by it. Discuss. (250 words)

Reference

Why this question

A decade has passed since the St. Petersburg declaration was made. However the progress on the targets envisaged by the declaration has not been at par. In this context it is important to discuss the achievements of the declaration.

Directive word

Discuss- this is an all-encompassing directive which mandates us to write in detail about the key demand of the question. we also have to discuss about the related and important aspects of the question in order to bring out a complete picture of the issue in hand.

Key demand of the question.

The question wants us to write in detail about the St. Petersburg declaration, its resolutions and to what extent it has been able to achieve the targets set by it.

Structure of the answer

Introduction– write a few introductory lines about the St Petersburg declaration. E.g In the 2010 St. Petersburg Declaration, the countries agreed to a Global Tiger Recovery Program and pledged to double the global tiger population by 2022.

Body-

Discuss the progress on the front of tiger conservation after the declaration. E.g

- *over one-third of tiger conservation sites in the world are severely at risk of losing their wild tigers — the majority of which are in Southeast Asia.*
- *Many of these areas lack basic plans for effective management, with over 60 per cent of the sites facing several limitations in anti-poaching.*
- *Countries like India, Nepal and Russia have shown that tiger recovery is possible, despite challenges in poaching, funding and sustaining community livelihoods, which can be overcome with strong political commitment.*

Discuss the reasons behind the poor performance. E.g

- *Known hot spots for illegal trade in tiger parts include the Indo-Nepalese border, South India, Central India, Mekong-China, Indonesia-China and Russia-China.*
- *Due to lack of centralised data across tiger range countries, it is difficult to enforce laws.*
- *Lack of political will.*
- *There is need for more cross-country cooperation between countries where there is high demand for tiger parts as well as countries which are home to tiger populations.*

Conclusion– based on your discussion, form a fair and a balanced conclusion on the given issue.

Background:-

- The centrality of tiger agenda is an ecological necessity for the sustainability of our environment. At the St. Petersburg Tiger Summit in 2010, leaders of 13 tiger range countries resolved to double its number in the wild, with a popular slogan 'T X 2' but their goal seems nowhere in sight.

Some goals have been achieved :-

- Countries like India, Nepal and Russia have shown that tiger recovery is possible, despite challenges in poaching, funding and sustaining community livelihoods, which can be overcome with strong political commitment.
- India is among the tiger range countries that have registered an increase in the number of tigers in the wild.



- Tiger monitoring is being implemented in 87 percent of sites. All sites surveyed in South Asian and East Asian countries like Bangladesh, Bhutan, China, India, Nepal and Russia have management plans.

St.Petersberg declaration failed to ensure goals of tiger conservation:-

- The **global status of tiger continues to be a concern.**
 - Countries are still a long way from achieving the ambitious target set in 2010 of doubling the global tiger numbers by 2022.
 - Over one-third of tiger conservation sites in the world are severely at risk of losing their wild tigers , the majority of which are in Southeast Asia.
 - Many of these areas lack basic plans for effective management, with over 60 per cent of the sites facing several limitations in anti-poaching, according to the Conservation Assured Tiger Standards (CATS) survey of tiger sites done in 2018.
 - All the range countries face the challenge to balance the interests of conservation and development.
 - Four categories emerge in the context of tiger presence and status across the range countries: forest with no tiger or prey, forest with few tigers and abnormal sex-ratio, empty forests, and impoverished land mass devoid of forest with habitat values.
 - **There is little convergence and conversation.**
 - It has been founded that in the last century 97% of all wild tigers had disappeared, with only around 3,000 left alive. Tigers are on the brink of extinction.
 - Many factors have caused their numbers to fall, including habitat loss, hunting and poaching, climate change.
 - The age-old concept of GDP continues to dominate with negligible green accounting.
 - **Carbon trading hardly has kick-started in tiger range countries**, where it is required most.
 - The limitations of Environmental Kuznet curve, has not fostered advancement of green development with less polluting technology to save tiger forests.
 - Over the past few years, **instances of tigers travelling hundreds of kilometres looking for territory have come to the fore.**
 - **Lack of manpower:-**
 - There is a 29% frontline staff vacancy against sanctioned posts in the tiger reserves of India.
 - Due to **lack of centralised data** across tiger range countries, it is difficult to enforce laws.
 - Only 12.5 percent of the tiger conservation areas meet the globally agreed upon science-based standards.

Way forward:

- There is a need for country-specific differentiated approaches where there is high demand for tiger parts as well as countries which are home to tiger populations.
- **Effective management is thus the single most important action.** To achieve this, long-term investment in tiger conservation areas is absolutely essential, and this is a responsibility that must be led by tiger range governments
- **International engagements between border countries are important to address the threat of trafficking.**
 - The momentum generated through national actions and global support must sustain in the face of economic growth agenda of the tiger range countries.
- A citizen's charter is needed for green development within sustainable tiger landscapes.
- **Better funding necessary:-**
 - Low investment from governments in Southeast Asia was stated as one reason for the lack of management of these supposedly 'protected areas'
- **Effective tiger management is impossible unless there are enough skilled personnel to do all the jobs required:** stopping poaching, managing community relations, keeping visitors safe and ensuring safe havens for tigers and other wildlife.
- **Better functional connectivity:-**
 - National Tiger Conservation Authority and Wildlife Institute of India delineated the minimal tiger habitat corridors connecting tiger reserves for implementing landscape scale tiger conservation.
 - As a result all tiger reserves in India manage their tiger population based on a tiger conservation plan, which address specific prescriptions for core, buffer, and corridor habitats.



Q) Poor implementation of environmental laws is a global concern. Discuss with a special focus on India. (250 words)

Reference

Why this question

The recent UN report highlights the issue of poor enforcement of environmental laws across the globe. It is therefore important to discuss the topic in detail.

Directive word

Discuss- this is an all-encompassing directive which mandates us to write in detail about the key demand of the question. we also have to discuss about the related and important aspects of the question in order to bring out a complete picture of the issue in hand.

Key demand of the question.

The question wants us to write in detail about the poor implementation of environmental laws across the globe.

Structure of the answer

Introduction– write a few introductory lines about the recent UN report. E.g The world fares poorly on implementation of environmental laws and regulations despite the fact that 38 times more green laws have been framed and approved in the last four decades, says the United Nations (UN) in its first ever global assessment of environmental laws.

Body-

Discuss how the environmental laws are not being implemented sincerely, across the globe and especially in India. E.g

- *Like the Water Act, which was implemented in 1974, a number of laws and regulations have been existing for more than four decades now, but are proving to be ineffective.*
- *We are perfect in the policy department but implementation is a problem. We have weak deterrents. The systems of accountability have been weakened, so monitoring is a huge problem.*
- *Coal-based power plants continue to be the major source of air pollution in the country as more than 300 coal thermal power plants still violate emission standards*
- *More than two-thirds of the states/union territories in the country have neither bothered to comply with the orders passed by the Supreme Court, nor complied with the directions given by the Ministry of Environment, Forests and Climate Change (MoEF&CC).*
- *In a scenario where the judiciary is already struggling to clear the existing backlog of over 21,000 environment-related cases, lack of respect and poor implementation of the judiciary's orders only provides an explanation for degraded environment we live in.*
- *Poor coordination across government agencies, weak institutional capacity, lack of access to information, corruption and stifled civic engagement are the key factors behind the poor effectiveness and implementation of environmental regulations etc.*

Conclusion– based on your discussion, form a fair and a balanced conclusion on the given issue.

Background:-

- The world fares poorly on implementation of environmental laws and regulations despite the fact that 38 times more green laws have been framed and approved in the last four decades, says the United Nations (UN) in its first ever **global assessment of environmental laws**.

Environmental mechanisms:-

- Global mechanisms like REDD and REDD+, Paris agreement, Stockholm declaration etc have been framed and adopted by many countries to conserve environment.
- According to UN report as many as 88 countries have adopted the constitutional right to a healthy environment and more than 350 environmental courts and tribunals exist in around 50 countries.



- Even in India there are plethora of environment protection laws :-
 - **Constitutional Provisions** under article 21 and article 47.
 - **Special acts** such as Indian Forest Act, Wildlife Protection act, Environment Protection Act, Air Act, Water Act, Forest Conservation Act, National Green Tribunal 2009, etc.

Failure of environmental laws from global perspective :-

- Failure to fully implement and enforce the environmental laws is one of the greatest challenges towards mitigating climate change, reducing pollution and preventing widespread species and habitat loss.
- **poor coordination across government agencies, weak institutional capacity, lack of access to information, corruption and stifled civic engagement** are the key factors behind the poor effectiveness and implementation of environmental regulations,

Failure of environmental laws in India :-

- Like the Water Act, which was implemented in 1974, a number of laws and regulations have been existing for more than four decades now, but are proving to be ineffective.
- The systems of **accountability have been weakened, so** monitoring is a huge problem.
- **India is ranked 177th out of 180 countries in the 2018 Global Environment Performance Index (EPI) rankings** for being unable to improve its air quality, protect its biodiversity, and cut its greenhouse gas emissions.
- **Air pollution:-**
 - India has highest number of cities which violate the threshold of healthy air limits
 - Coal-based power plants continue to be the major source of air pollution in the country as more than 300 coal thermal power plants still violate emission standards.
- **Wildlife:-**
 - Despite laws to protect wildlife protection, poaching and illegal trade of wild animals is a common practise till date. Also rise in man animal conflict is an indicator of lack of proper implementation of the laws.
- More than two-thirds of the states/union territories in the country have neither bothered to comply with the orders passed by the Supreme Court, nor complied with the directions given by the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- **The judiciary's order failed to even curb illegal rat hole mining and miners in Meghalaya paid the price for that.**
 - Acting on the orders of the National Green Tribunal (NGT), the Meghalaya government in 2015, suspended rat hole mining and transportation of coal in the entire state. But four years later, illegal practices continue unabated in the state.
- **Poor coordination and rampant corruption :-**
 - Most of these laws either die in nascent or intermediate stage due to profit motives and lax in execution
- **Public awareness is poor**
 - Lack of public hearings and social audit before implementing projects
 - Environmental impact assessment has often been neglected for projects.

Way forward:-

- There is a need to consider **TSR Subramanian committee recommendations:**
 - New bodies like National Environment Management Authority and State Environment Management Authority replacing CPCB and SPCB, to evaluate project clearance using technology and expertise.
 - Areas with 70% tree cover should be declared "no go zone"
- **Positive attitude on the part of each citizen** is essential for effective and efficient enforcement of these legislations.
- Also **institutional capacities must be strengthened** which are currently filled with problems such as understaffing, lack of financial resources and low skill levels of workers.
- Speed of justice delivery must be increased through special courts which improve compliance.

Q) The impact of climate change falls disproportionately on the poor. Analyze and also highlight India's risk profile due to climate change. (250 words)

epw



Why this question

The article examines the disproportionate impact of climate change on the poor. With the impact of climate change now taking myriad forms, it is a necessity to take steps to address the impact of climate change on the poor population.

Key demand of the question

The question expects us to first explain how there is a disproportionate impact of climate change on the poor population. Thereafter we need to bring out the risk profile of India with respect to climate change and the measures required to address this vulnerability.

Directive word

Analyze – When asked to analyze, you have to examine methodically the structure or nature of the topic by separating it into component parts and present them as a whole in a summary.

Structure of the answer

Introduction – Explain that a recent report of IPCC has belief the belief that climate change is a gradual, slow moving phenomenon.

Body

Explain about the impacts of climate change and how it falls disproportionately on the poor

- food, resulting in increased competition to access these basic necessities. This increases the chances of the intensification of existing conflicts and also creates new ones.
- Frequent floods and droughts caused by climate change lead to food shortages and rise in food prices. This causes hunger and malnutrition, the effects of which are felt most strongly by the poor. According to the World Food Programme's 2018 Global Report on Food Crises, "climate disasters triggered food crises across 23 countries, mostly in Africa, with shocks such as drought leaving more than 39 million people in need of urgent assistance." etc

Analyze India's risk profile

- India ranks fifth globally for the losses it has experienced due to climate change. Around 800 million people in the country live in villages and depend on agriculture and natural resources for their livelihoods. With at least 50% of the farmlands in the country being rain-fed, changes in the pattern of the monsoons will affect their livelihoods the most.

Discuss steps that are required to mitigate the risk

Conclusion – Explain that the risk is real and discuss way forward.

Background:-

- Climate change is an emergency that has been affecting the planet and its inhabitants, human, plant, and animal, in big and small ways. However, it has affected the poor disproportionately and has had a greater impact on the poor and developing nations.

How climate change impacts poor:-

- **Food shortages leading to hunger and malnutrition :-**
 - With climate change, people face shortage of water and food, resulting in increased competition to access these basic necessities. This increases the chances of the **intensification of existing conflicts and also creates new ones.**
 - In the Democratic Republic of Congo, shifts in the timing and patterns of rainfall have led to lower food production and greater competition on arable land, increasing ethnic tensions and conflicts in the country. Such conflicts affect the poor the most, and further lead to an increase in poverty and displacement, pushing people into a vicious trap.
 - Frequent floods and droughts caused by climate change lead to food shortages and rise in food prices. This causes hunger and malnutrition, the effects of which are felt most strongly by the poor.
 - Floods and droughts brought on by climate change threaten food production and supply. As a result, the price of food increases, and access becomes more and more limited, putting many at higher risk of hunger.



- Rising sea levels, extreme weather events and prolonged drought force millions of people to move away from home every year in search of food, water and jobs.
- **Refugees problem:-**
 - Climate refugees can be found all over the world, displaced by coastal flooding in Dhaka, by hurricane Maria in Puerto Rico, or due to the desertification of Lake Chad in West Africa. It is estimated that the number of people seeking asylum in the European Union due to climate change would see a 28% increase by 2100.
- The **increased frequency and intensity of extreme weather events** like hurricanes, wildfires and droughts threaten food supplies, drive people from their homes, separate families and jeopardize livelihoods. And all of these effects increase the risk of conflict, hunger and poverty.
- Three out of four people living in poverty rely on agriculture and natural resources to survive. For these people, the effects of climate change – limited water and food sources and increased competition for them are a real matter of life and death.
- **Farmers :-**
 - Gradual changes brought on by deforestation, overgrazing and drought slowly transform pastures to dust, destroy crops and kill livestock, effectively challenging the livelihoods of millions of farmers.
- **Health issues:-**
 - poor communities already have higher rates of many adverse health conditions, are more exposed to environmental hazards and take longer to bounce back from natural disasters. These existing inequalities will only be exacerbated due to climate change,
 - Heart and lung disease, heat stroke and bacterial infections are just a few of the health consequences associated with climate change. Low-income populations typically have less access to information, resources, institutions, and other factors to prepare for and avoid the health risks of climate change.

India's risk profile due to climate change:-

- India ranks fifth globally for the losses it has experienced due to climate change
- Around 800 million people in the country live in villages and depend on agriculture and natural resources for their livelihoods. **With at least 50% of the farmlands in the country being rain-fed, changes in the pattern of the monsoons will affect their livelihoods the most.**
 - There has been a recorded decline in monsoon rainfall levels since 1950. And it is suspected that 2°C rise in world's temperature will make India's monsoon even more unpredictable. Change in Monsoon could flood certain states in India, while some other states may witness frequent droughts.
- Climate change will make the existing problems of poverty, malnutrition, and farmer suicides worse.
- Due to climate change, 15% of **India's groundwater resources are damaged**, and falling water table is suspected to deal a severe blow in progress of agriculture.
- Rising sea-level and surges of storm would also impact agriculture, degrade groundwater quality, increasing the risk of contamination in water, and giving rise to diarrhoea and cholera. Kolkata and Mumbai, are suspected to be affected by sea level rise.
- Also rising carbon dioxide levels due to global warming is suspected to shrink down the amount of protein in crops like rice and wheat, which are primary food source for majority of the population in the drought leaving **populations at risk of malnutrition, low immunity and raising the risk of diseases affecting the population severely.**
- **Economic:-**
 - India will be among the worst hit countries that may face wrath of calamities like floods and heatwaves, and reduced GDP.
- There will be manifold increase in the **severe heatwave frequency** and population affected in India if the global mean temperature rises to or beyond 1.5 degree by the end of the century.

Way forward:-

- India needs to focus on **improving air quality** which can deliver returns in health and productivity as well as the recovery of monsoon.
- The efforts should include reforestation which would reduce the impact of extreme events fuelled by warming of the surrounding oceans and neighbouring lands.
- To limit global warming, countries will have to change policies in sectors like land, energy, industry, buildings, transport, and urban development.



- Limiting global warming to 1.5 degree compared with 2 degree would reduce challenging impacts on ecosystems, human health and well-being, making it easier to achieve the United Nations Sustainable Development Goals.

Q) The receding glaciers in Hindu Kush underline the need for cooperation between countries that share Himalayas. Comment. (250 words)

[Indianexpress](https://www.indianexpress.com)

Why this question

The impact of climate change on glaciers in the Hindu-Kush region is prominent and scary. The ranges provide water and livelihood security to billions of people. In this context it is important to discuss the need for cooperation among countries sharing the Himalayas.

Directive word

Comment- here we have to express our knowledge and understanding of the issue and form an overall opinion thereupon.

Key demand of the question.

The question wants us to express our knowledge and understanding about the recession of glaciers in the Hindu-Kush range and express our opinion on the need for the countries sharing the Himalayas to cooperate in this regard.

Structure of the answer

Introduction– write a few introductory lines about the Hindu-Kush and the Himalayas. E.g mention the countries which share Himalayas.

Body-

Discuss the recession of the Himalayan glaciers and how they could impact socio-economy of the region and Bring out the need for the nations sharing Himalayas to protect the melting glaciers. E.g

- *Success in meeting the Paris Climate Pact's most ambitious target might not be enough, a recent study says, to prevent a serious meltdown in the Hindu Kush Himalayas.*
- *the Kathmandu-based International Centre for Integrated Mountain Development's (ICIMOD) "Hindu Kush Himalaya Assessment" reveals that more than 35 percent of the glaciers in the region could retreat by 2100, even if the global temperature rise is capped at 1.5° C.*
- *This could destabilise the hydrology of large parts of South Asia, China and Myanmar.*
- *Regions in higher altitudes tend to warm faster than low-lying lands.*
- *This will have a major bearing on the ice-fields, which are the largest repository of permafrost outside the polar regions. The region's snow is the source of 10 major river systems — including the Ganga, Indus, Brahmaputra and Mekong — in India, Pakistan, Afghanistan, Nepal, Bangladesh, Bhutan, China and Myanmar.*
- *Large-scale warming could drastically alter the river flows in these countries. The receding glaciers could cause a deluge in the rivers during the monsoon while the flows are likely to plummet during the dry seasons, with serious implications for irrigation, hydropower and ecosystem services.*
- *The number of intense precipitation days and intensity of extreme precipitation have increased overall in the last five decades. If these trends persist, the frequency and magnitude of water-induced hazards in the (Hindu Kush Himalaya) region will increase," it says. This is a significant conclusion given that developments in the Himalayas are known to have a spin-off on the monsoon in the Subcontinent.*



- *There is a need for more data sharing between the countries that share the Hindu Kush Himalayas.*
- *political differences between these countries should not come in the way of joint efforts to build resilience of vulnerable communities and shore up the region's water security.*

Conclusion— *based on your discussion, form a fair and a balanced conclusion on the given issue.*

Background:-

- Hindu Kush Himalayan mountain ranges extend over 4 million square kilometres in Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal and Pakistan. Over 210 million people live in this region. Rivers that originate in these mountains are a critical source of water for 1.3 billion people living downstream.
- International Centre for Integrated Mountain Development's (ICIMOD) "Hindu Kush Himalaya Assessment" reveals that more than 35 per cent of the glaciers in the region could retreat by 2100, even if the global temperature rise is capped at 1.5° C.

Why there is need for cooperation among countries that share Himalayas :-

- A global temperature increase of 1.5°C could mean at least a 1.8°C temperature rise in the Hindu Kush Himalayas, the ICIMOD study warns.
 - Rise in global temperatures could destabilise the hydrology of large parts of South Asia, China and Myanmar. This will have a major bearing on the ice-fields, which are the largest repository of permafrost outside the polar regions.
- **The region's snow is the source of 10 major river systems** including the Ganga, Indus, Brahmaputra and Mekong in India, Pakistan, Afghanistan, Nepal, Bangladesh, Bhutan, China and Myanmar.
 - Large-scale warming could drastically alter the river flows in these countries.
 - The receding glaciers could cause a deluge in the rivers during the monsoon while the flows are likely to plummet during the dry seasons, with serious implications for irrigation, hydropower and ecosystem services.
- **Impact of climate change:-**
 - The number of intense precipitation days and intensity of extreme precipitation have increased overall in the last five decades. If these trends persist, the frequency and magnitude of water-induced hazards in the (Hindu Kush Himalaya) region will increase.
 - Given the speed at which these glaciers are melting and retreating due to changes in climatic conditions, there will be frequent and unpredictable devastating glacial lake outbursts and floods, causing severe damages to lives, livestock and livelihood.
- **Impact on monsoons:-**
 - Developments in the Himalayas are known to have a spin-off on the monsoon in the Subcontinent.
 - Water sources of countries in the Himalayan region vitally depend on the monsoon rains and streams emanating from the Himalayas. It is pretty clear now that climate change and global warming have heavily affected rainfall patterns, the concentration of snow and ice and eventually the flow of streams in the Himalayas.
- **Livelihood:-**
 - The Himalayas, just like the Western Ghats, plays a critical role as watershed. It provides water, food, energy and myriad ecosystem services to the people living in the region.
 - An estimated 50,000 glaciers in the Himalayas are both a boon and bane for mountainous countries like Bhutan and Nepal. These glaciers are a major source of irrigation in summer months.
 - They support farm practices and livelihood of a large population.
 - What happens in the Hindu Kush Himalayas affects a fourth of the world's population and the whole world by extension. It is extremely important for the member countries to sit together and ensure that there is cooperation at all levels

What needs to be done :-

- **Transparency in data sharing and joint monitoring** of such structures will strengthen cooperation among countries.
- Although there exist bilateral treaties between some of the Himalayan countries on sharing of river water, given that some rivers are flowing into more than one country, **multilateral treaties based on the principle of equity are required.**
- Cross-border dialogues and cooperation are necessary to put in place an effective cooperative mechanism to find and promote amicable solutions to the river water sharing problems.



- **Integrated water resources management** could prove to be a great tool to augment water resources, improve quality of water and bring countries in the Himalayan region together to manage transboundary basins collectively.
- **International experiences :-**
 - Experiences from the Arctic Council – an intergovernmental panel in the Arctic region and the Alpine convention an international treaty for sustainable development of the Alps need to be shared to provide learnings for the HKH cooperation efforts.

Q) India needs to develop its own emissions factor database relevant to local air pollution sources. Do you agree. Comment. (250 words)

[Livemint](#)

Why this question

Air pollution is a serious issue in India and many of the world's most polluted cities are from India. air pollution is not only a problem in Metropolitan or big cities but also in small cities, towns and even villages. in this context it is important to discuss whether there is any to develop an emission factor database relevant to local air pollution sources.

Directive word

Comment- here we have to express our knowledge and understanding of the issue and form an overall opinion thereupon.

Key demand of the question.

The question wants us to express our knowledge and understanding about the air pollution problem across India. it then what was to express our opinion as to why/ why not there is a need for India to develop its own emissions factor database relevant to local air pollution sources.

Structure of the answer

Introduction– write a few introductory lines highlighting India's air pollution woes. E.g mention about the air pollution status of Indian cities at global level.

Body–

Discuss in points as to why there is a need for India to develop its own emissions factor database relevant to local air pollution sources. E.g

- *NCAP sets a target of 20-30% reduction of PM2.5 and PM10 by 2024, with 2017 as the base year for comparison.*
- *To achieve such comprehensive actions for prevention, control, and abatement of air pollution, NCAP requires detailed knowledge of data, research findings and time-to-time policy impact analysis.*
- *However, currently available knowledge on the sources of air pollution is inadequate to inform such contributions, particularly at local scale, which is a crucial input for developing city-centric strategies.*
- *For better implementation of NCAP, there is a need for researchers and policymakers to access robust, open-source data.*
- *India needs to develop a platform for reliable and timely data sharing, to understand source contribution and evaluate policy impacts at local and regional scale.*
- *Emissions inventory, air pollution modelling, ambient air quality monitoring, chemical characterization of pollutants and source apportionment studies are some of the conventional measures to understand source contribution and evaluate policy impacts.*
- *Today, except for Delhi, most Indian cities and regions lack such measures. There is minimal knowledge available for rural areas etc.*

Conclusion– based on your discussion, form a fair and a balanced conclusion on the given issue.

**Background:-**

- Air pollution levels in most of the Indian cities are far beyond the World Health Organization's guidelines of 10 micrograms per cubic metre ($\mu\text{g}/\text{m}^3$). In 2016, 18 of 25 most polluted cities in the world were in India.

Why India needs to develop its own emissions factor database relevant to local air pollution sources:-

- **Local programs with local targets available:-**
 - NCAP sets a target of 20-30% reduction of PM_{2.5} and PM₁₀ by 2024, with 2017 as the base year for comparison.
 - For better implementation of NCAP, there is a need for researchers and policymakers to access robust, open-source data
- **Contradictory reports:-**
 - In today's scenario, newer studies are being released at regular intervals on various platforms, analysing and discussing source contribution towards air pollution in Indian cities.
 - It is not unusual for these reports to contradict each other citing different data for the same location in almost similar timelines and drawing different inferences.
- **Issues with the process of collecting data:-**
 - Many existing air pollution monitoring stations are under stress due to external issues in the process of collecting data.
 - Gaps in input data and data access constraints to the scientific community are common, and could play a major role in delivering dissimilarities in studies.
- **Local data is needed :-**
 - India needs to develop a platform for reliable and timely data sharing, to understand source contribution and evaluate policy impacts at local and regional scale.
 - **Indigenous data will give a wholesome and clearer picture of the menace of air pollution in India .**
 - IIT Kanpur study on pollution is an example of local data collection and research.
- There is minimal knowledge of source apportionment studies in Indian cities.
 - Emissions inventory, air pollution modelling, ambient air quality monitoring, chemical characterization of pollutants and source apportionment studies are some of the conventional measures to understand source contribution and evaluate policy impacts. **Today, except for Delhi, most Indian cities and regions lack such measures.**
- **No data on rural areas:-**
 - There is minimal knowledge available for rural areas.
 - Majority of monitoring stations in India are in cities, and there is limited or no information available for rural areas. At the policy and scientific front, air pollution has so far been perceived as a problem of urban India and hence no rural-focused policy has been developed
- **External data used :-**
 - Most of the activity-based emissions factor used by India is developed outside the country, which may give erroneous results.
 - Also there is significant dependence on euro norms.
 - Reliance on WHO data for Health effects and pollution monitoring.
 - Activity based emission factors used by India are developed outside and not modified for Indian context.

Way forward:-

- Geographic locations, location-wise sources of pollution, dispersal of pollutants across regions and other factors should be considered. These steps will help build a systematic mitigation plan by setting up priorities at different scales and as per different regional requirements.
- More number of Data collection centers and, real time update of data is necessary
- The government needs to focus on collating a local and regional database for different sectoral activities (like vehicle kilometre travel, biomass use, industrial energy use) as primary inputs for developing an 'emission inventory'.

Q) The Green New Deal is the kind of impetus that climate action requires today. Examine. (250 words)

The hindu

Why this question



The Green New deal in discussion in USA seeks to address the issues around historical responsibility and the one inevitability of taking action against climate change. The article delves into the details of the deal and examines why it is so important.

Key demand of the question

The question expects us to explain about the green new deal, highlight why it is important in arriving at a solution to the climate crisis, discuss its impacts and talk about the way forward.

Directive word

Examine – When you are asked to examine, you have to probe deeper into the topic, get into details, and find out the causes or implications if any .

Structure of the answer

Introduction – Highlight about the severity of climate change problems and USA's reluctance so far in driving the world towards a solution.

Body

- Explain about the green new deal and the details of it – The Green New Deal “is a four-part programme for moving America quickly out of crisis into a secure, sustainable future”. Green New Deal audaciously aspires to make sweeping changes to the environment and economy and meet all of the U.S.'s power demand from clean, renewable and zero emission energy sources by 2030, while at the same time addressing racial and economic justice
- Highlight why USA is important for climate negotiations and the setback that it gave to global action against climate change by withdrawing from the Paris accord
- Thereafter, discuss about the implications of the green new deal and how it would provide an impetus to action against climate change

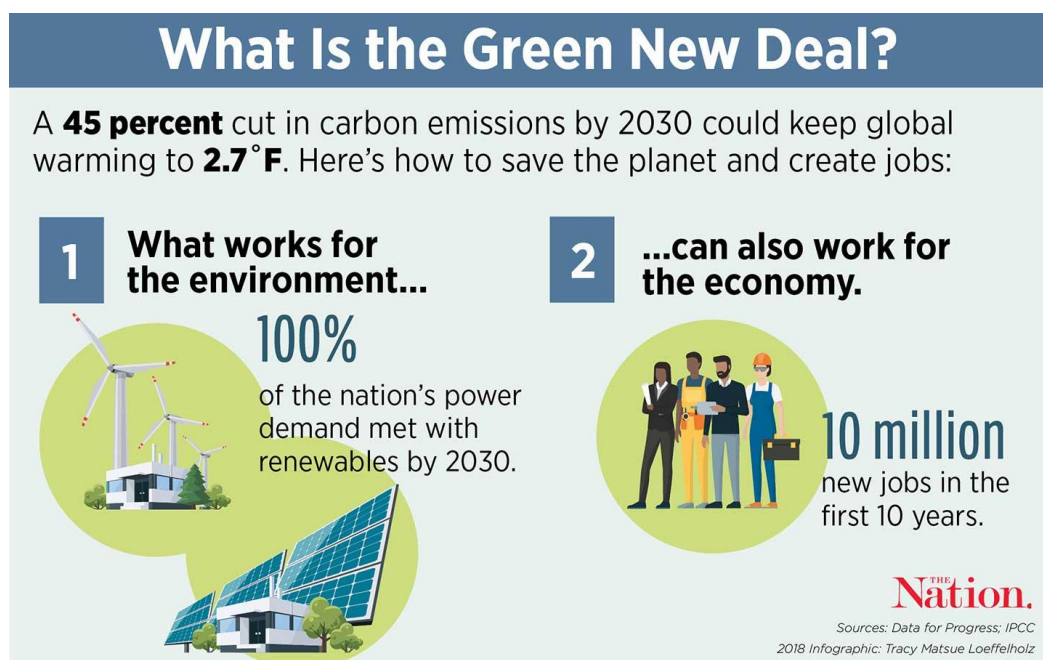
Conclusion – Give your view and discuss way forward.

Introduction:

The 1.5° report of the Intergovernmental Panel on Climate Change and the U.S. Fourth National Climate Assessment identifies the worldwide effects from warming, the disproportionate responsibility borne by the U.S. as a result of its historical emissions, and calls for the country to step up as a global leader.

Green New Deal (GND) is a set of **proposed economic stimulus programs in the United States that aim to address climate change and economic inequality.**

Body:





Green New Deal:

- The GND “is a **four-part programme for moving America quickly out of crisis into a secure, sustainable future**”.
- The name refers to the **New Deal, a set of social and economic reforms and public works projects** undertaken by President Franklin D. Roosevelt in response to the Great Depression.
- The Green New Deal combines **Roosevelt’s economic approach** with modern ideas such as **renewable energy and resource efficiency**.
- A previous policy similar to the Green New Deal was the 2008 tax incentive for solar panels.

It includes **seven goals** previously introduced by Ocasio-Cortez:

- Shift 100 percent of national power generation to renewable sources.
- Build a national energy-efficient “smart” grid.
- Upgrade all buildings to become energy efficient.
- De-carbonize manufacturing and agricultural industries.
- De-carbonize, repair, and upgrade the nation’s infrastructure, especially transportation.
- Fund massive investment in the drawdown and capture of greenhouse gases.
- Adopting these goals would make “green” technology, industry, expertise, products, and services a major U.S. export.

USA and climate change:

- Till date, **no U.S. agency or civil society group** has publicly acknowledged the responsibility of the country for its historical emissions.
- USA is the **second largest green house gas emitter after China**. The increased climate events faced in the last decade is a result of the global warming.
- At least 100 million people would die from increased heat waves, drought, and infectious diseases. The heat would also kill off 90 percent of the world’s coral reefs.
- **USA pulled out of the UNFCCC’s Paris Deal** citing injustice to the developed nations.
- According to the Energy Information Administration, the share of fossil fuels in total electricity generation in the U.S. in 2017 was 63%, the share of renewables was 17%, and the share of nuclear was 20%.
- The U.S. Senate unanimously passed the **Byrd-Hagel Resolution**, according to which the U.S. ought not to be a signatory to any protocol or agreement regarding the United Nations Climate Convention that would reduce greenhouse gas emissions for Annex-1 Parties, the wealthy countries, unless developing countries were also similarly required to limit their emissions.

The implications of the green new deal

NGD goals entail dramatic changes in manufacturing, electricity generation, education, livelihoods, sustainable farming, food systems, an overhaul of transportation, waste management, health care, and strong pollution-control measures. It alleviates the fear of the people of USA and ensures their empowerment. The various impacts of GND are

- **Environmental Impact:**
 - It states that it is the responsibility of the federal government to create a Green New Deal, which would meet its power demand through renewable sources in 10 years.
 - It calls for a 10-year national mobilisation that would build infrastructure, eliminate pollution and greenhouse gas emissions, as much as is technologically feasible, and reduce risks posed by the impacts of climate change.
- **Political Impact:**
 - It states that the federal government needs to take the full social and environmental costs of climate change into consideration through new laws, policies and programmes.
- **Social Impact:**
 - The Green New Deal adds some goals to **address income inequality**. The effects of climate change are worse on low-income people. For example, droughts raise food prices. Low-income households spend a greater percentage of their earnings on food and can least afford higher prices.
 - It would make **universal health care available**. It also advocates a **universal basic income**. This is a government guarantee that each citizen receives a minimum income. It pays enough to cover the cost of living.
 - The Green New Deal calls for a federal jobs guarantee for all.
- **Economic Impact:**
 - Businesses can create a profitable competitive advantage by adopting Green New Deal goals. States, like California and Hawaii, have already set goals to become carbon-free.



- The Green New Deal funds new jobs, including installing solar panels, retrofitting coastal infrastructure, and manufacturing electric vehicles. It asks for new trade rules to stop “the transfer of jobs and pollution overseas.”
- It recognises that public funds would be needed for these changes and need to be leveraged.
- **Infrastructure:**
 - The resolution requires that any new infrastructure spending must address climate change.
 - It wants the government to push for more zero-emissions vehicles and invest in high-speed rail and other public transit.

Conclusion:

- The Green New Deal is an acknowledgement by politicians that economic growth, the environment and social well-being go together. It acknowledges the responsibility of the U.S. for its historical emissions and pushes to work for the climate equity and climate justice.

Q) Examine whether the National Clean Air policy will help in restoring the air quality ? (250 words)

Reference

Why this question

Air pollution has become one of the most stubborn urban challenge that India has to deal with year after year. A national policy for clean air was much required and the article delves deep into the details and an analysis of the policy. This question will help you getting better understanding of National Clean Air Policy.

Key demand of the question

The question expects us to discuss the details of the policy, examine its need and evaluate how far the policy measures are effective in tackling this problem.

Directive word

Examine – When you are asked to examine, you have to probe deeper into the topic, get into details, and find out the causes or implications if any .

Structure of the answer

Introduction – 11/12 cities in most polluted list of WHO were in India. Quote the Lancet report. This reflects the magnitude of the problem and a policy in this regard couldn't have come any sooner.

Directive word

Explain the details of the policy

- *Highlight that the policy acknowledges the severity and urgency of the problem*
- *The National Clean Air Policy lays down the road map for Indian cities to clean up their act in the next five years.*
- *Cities are declared ‘non-attainment’ if they consistently fail to meet the National Ambient Air Quality Standards (NAAQS) for PM10 (particulate matter that is 10 microns or less in diameter) or Nitrogen Dioxide over a period of five years.*
- *Covers various stakeholders such as ministries of road transport and highway, petroleum and natural gas, new and renewable energy, heavy industry, housing and urban affairs, agriculture, and health. Etc*

Evaluate the effectiveness of the policy.

- *Highlight the markers of success such as clear target, drawing learnings from previous measures to tackle pollution etc*
- *three-tier mechanism for review of monitoring, assessment and inspection for implementation” under which trained manpower and regular inspection drives will be ensured for “stringent implementation”.*



- *Highlight the challenge of implementation*

Conclusion – Give your view and discuss the way forward such as strengthening laws to give more teeth to the policy.

Introduction:

According to a recently released **Greenpeace report**, **139 Indian cities** breached air pollution standards. The report analysed air pollution data of **313 cities and towns** for the year **2017**. Of these 313 cities, **241 (77%) had PM10 levels beyond the National Ambient Air Quality Standards (NAAQS)**. The **Lancet report** in December 2018 said **1.2 million deaths of Indians in 2017 could be attributed to air pollution**.

Body:

The high incidences of polluted cities and increasing mortality due to air pollution pushed the Government to come up with National Clean Air Policy.

The details of the policy

- NCAP proposes a framework to achieve a **national-level target of 20-30 per cent reduction of PM2.5 and PM10 concentration by between 2017 and 2024**.
- Central Pollution Control Board (CPCB) will execute this nation-wide programme in consonance with the section 162 (b) of the **Air (Prevention and Control of Pollution) Act, 1986**.
- The approach for NCAP includes **collaborative, multi-scale and cross-sectoral coordination** between the relevant central ministries, state governments and local bodies.
- The plan **covers 102 non-attainment cities**, across 23 states and Union territories, which were identified by the Central Pollution Control Board (CPCB) on the basis of their ambient air quality data between 2011 and 2015.
- Non-attainment cities are those which have been consistently showing poorer air quality than the National Ambient Air Quality Standards. These include Delhi, Varanasi, Bhopal, Kolkata, Noida, Muzaffarpur, and Mumbai.
- The programme has been launched with an **initial budget of ₹300 crore for the first two years**.
- As part of the programme, the Centre also plans to scale up the air quality monitoring network across India. At least 4,000 monitors are needed across the country, instead of the existing 101 real-time air quality (AQ) monitors, according to an analysis.
- The plan proposes a **three-tier system**, including **real-time physical data collection, data archiving, and an action trigger system** in all 102 cities, besides extensive plantation plans, research on clean-technologies, landscaping of major arterial roads, and stringent industrial standards.
- It also proposes **state-level plans of e-mobility** in the two-wheeler sector, **rapid augmentation of charging infrastructure, stringent implementation of BS-VI norms, boosting public transportation system, and adoption of third-party audits for polluting industries**.
- The national plan has proposed setting up an **apex committee under environment minister, a steering committee under-secretary (environment) and a monitoring committee under a joint secretary**. There would be project monitoring committees at the state-level with scientists and trained personnel.

Strengths of the policy:

- **Integrated Focus:** The NCAP attempts to pull all previous air pollution control plans together **under a single strategy** that focuses on improving the air quality in 102 'non-attainment cities' across the country.
- **Cross-cutting policy:** The policy was launched by the environment minister, but it is massively cross-cutting, involving the ministries of road transport and highway, petroleum and natural gas, new and renewable energy, heavy industry, housing and urban affairs, agriculture, and health.
- **Inclusive:** The policy includes the government think tank NITI Aayog, the central pollution control board, experts from the industry, academia, and civil society as stakeholders.
- **Partnership:** The programme will partner with multilateral and bilateral international organizations, philanthropic foundations and leading technical institutions.

Other factors which can make a difference to NCAP

- **The media:** In India, the media can be influential when it comes to public health issues, especially those that affect the middle classes and above, and air quality is an obvious campaign issue. **Example:** Incidences of episodic air pollution during winters in Delhi-National Capital Region in recent years have attracted significant media attention, thus bringing the entire issue of air pollution under regular public scrutiny.
- **Shortcomings of previous actions:** Insufficient and higher level of focused time bound initiatives at both city and rural level now appear obligatory to address the issue in comprehensive manner at national level.



- **Clear target:** It is to bring down particulate matter 10 and 2.5 levels in the 102 non-attainment cities by 30% by 2024.
- NCAP recommends support for studies on health and economic impact of air pollution.

The challenges:

- **Teethless:** Implementation of NCAP is the biggest challenge as the policy has no teeth, it's **not legally binding**. NCAP is a **top-down prescriptive approach**.
- The MoEFCC has not drawn upon the precedence of the notification of Graded Response Action Plan or the Comprehensive Action Plan under the Environment Protection Act in Delhi and NCR.
- **One-size doesn't fit all:** NCAP will also have to be more nuanced and adopt appropriate approaches for small and big cities according to their dominant pollution profile while several strategies may remain uniform.
- It does have a "three-tier mechanism for review of monitoring, assessment and inspection for implementation" under which trained manpower and regular inspection drives will be ensured for "stringent implementation". But this, disappointingly, is the perhaps the weakest section of this document, **too short and vague on specifics**.
- NCAP has **not provided for innovative financing mechanism** at central and state/city level. The funds allotted are meagre which cannot sustain the grand plans.
- The '**polluter pay**' based **taxation mechanism** to mobilise resources for dedicated funding of pollution control action is also not considered.

Conclusion:

- Air pollution control cannot remain only policy intent. Local and national action requires teeth and grit to make a difference and save lives.
- Within the federal structure, NCAP, while ensuring compliance, will also have to create enough room for tighter action that can be even stronger. State governments and city authorities should be encouraged and enabled to take those extra steps to meet local targets.

Q) The biodiversity of the Hindu-Kush region, faces huge challenges, and there is an urgent need to protect it. Analyze. (250 words)

Reference

Why this question

Recently a report highlighting the plight and fate of biodiversity in the Hindukush region has been released. In this context it is important to analyze the threats faced by the region and the need to increase our conservation efforts in this direction.

Directive word

Analyze-here we have to examine methodically the structure or nature of the topic by separating it into component parts, and present them as a whole in a summary.

Key demand of the question.

The question wants us to dig deep into the recently released report of the ICIMOD and bring out the threats faced by the region of Hindu Kush and then bring out the need for preservation of the same.

Structure of the answer

Introduction- write a few introductory lines about the recently released ICIMOD report. E.g According to data cited in the assessment report, 70–80% of the region's original habitat has already been lost and that loss may increase to 80–87% by 2100.

Body-

Discuss the threats and challenges faced by The biodiversity in the Hindu Kush region. E.g A quarter of endemic species in the Indian Himalayas alone could be wiped out by 2100; And this is only set to worsen with the growing impacts of climate change, along with new infrastructure development, trade routes and hydropower dams planned for the fragile region; Along with species loss this will mean the loss of the key environmental services the region provides – such as water and carbon storage – to the rest of Asia; bout 40% of the HKH region is designated as protected areas, but actual



implementation of conservation measures is patchy. Many of these areas are remote and authorities have little control over border regions sometimes plagued with ongoing conflict etc.

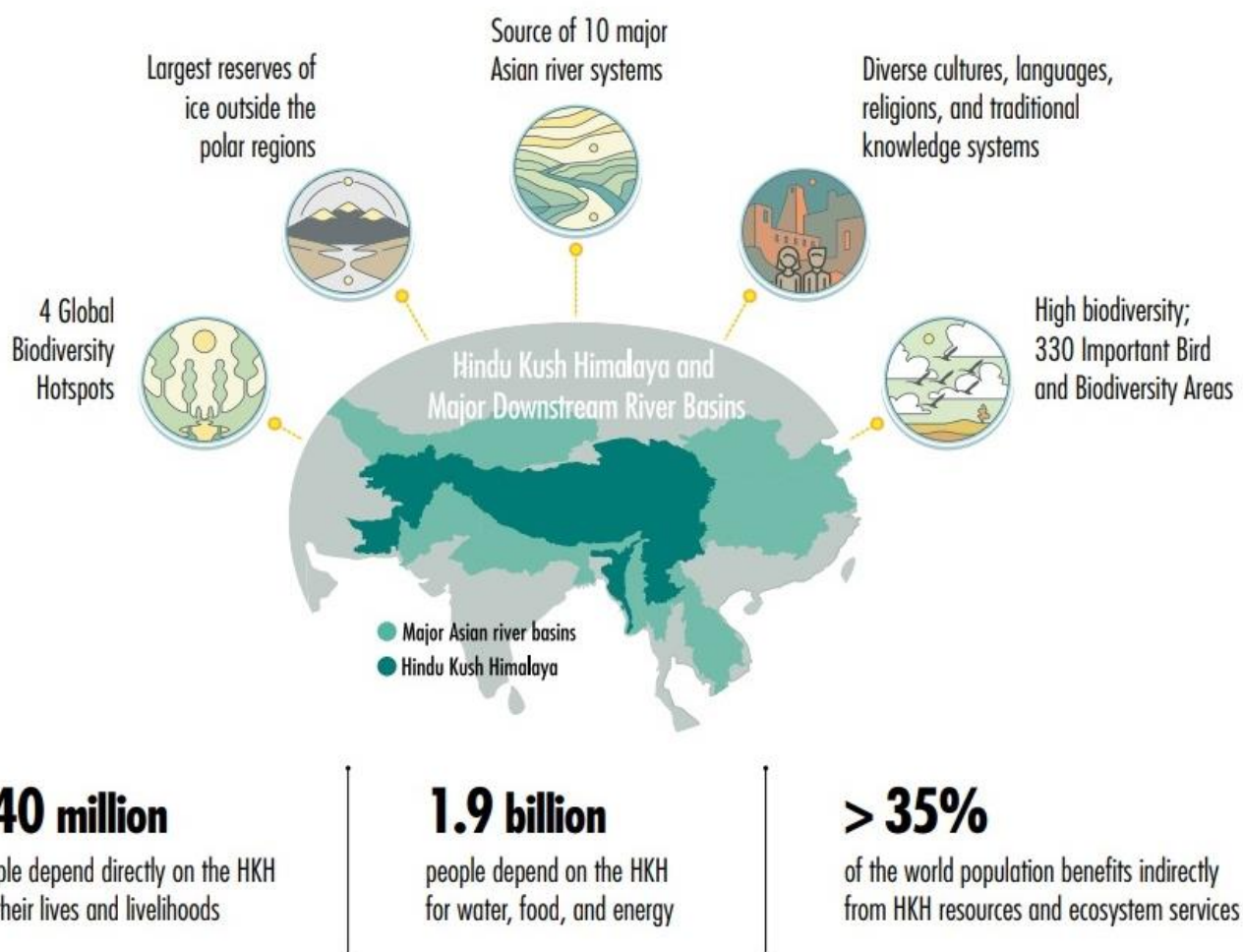
Discuss the need to preserve the same. E.g The mountains of the Hindu Kush Himalaya contain the most biodiverse regions in the world – some of it still undiscovered; Spanning a vast distance from Afghanistan in the west to China in the east – the region is not only vast tracts of snow and ice. It encompasses lush tropical valleys, mountain forests, alpine meadows to high altitude grasslands and wetlands as well as arid steppes; These provide habitat to a diversity of rare endangered animals – including tigers, elephants, musk deer, red panda and snow leopards. Most of these species – apart from the Tibetan antelope and Giant panda of which numbers have rebounded in the past decade – are being driven to extinction; Rhododendrons, orchids, rare medicinal and wild edible plants are also under threat etc.

Conclusion- based on your discussion, form a fair and a balanced conclusion on the given issue.

Introduction:

- The Hindu Kush Himalayan (HKH) region extends 3,500 km over all or part of eight countries from Afghanistan in the west to Myanmar in the east.
- According to **ICIMOD report**, 70–80% of the region's original habitat has already been lost and that loss may increase to 80–87% by 2100. A quarter of endemic species in the Indian Himalayas alone could be wiped out by 2100.

Body:



Summary of the HKH Assessment Report

The **threats and challenges** faced by the biodiversity in the Hindu Kush region are

- ICIMOD report paints a bleak picture for the future of a region that is the **source of Asia's 10 major rivers and provides water, food, energy and carbon storage for almost two billion people.**
- **Biodiversity is in steep decline** driven by human development, pollution, overexploitation of resources and climate change. Example: **Urbanization** is on rise in many of the HKH countries.



- With the **growing impacts of climate change**, along with new infrastructure development, trade routes and hydropower dams planned for the fragile region, the effects on the biodiversity is set to worsen further.
- Along with species loss this will mean the **loss of the key environmental services** the region provides – such as **water and carbon storage** – to the rest of Asia.
- As temperatures rise with climate change, large areas of grasslands, alpine meadows, wetlands and permafrost will disappear on the Tibetan plateau by 2050.
- Human impact has led to a loss of wildlife populations, plant productivity, changes in growing seasons and plants and **entire ecosystems shifting to higher altitudes**. Example: industrial activities, road building around the Afghan region and **increased vehicular traffic** has affected snow leopards.
- **Hydropower** is a big threat, with over 550 large projects in existence or under construction. Example: The dams constructed and diversions of Amu-Darya and Syr Darya have now almost stopped feeding the Aral Sea.
- New trade routes under **China's Belt and Road initiative** – such as new rail and roads cutting through fragile landscapes – will bring new opportunities to remote regions, but could facilitate greater resource extraction and illegal wildlife trade.
- About **40% of the HKH region** is designated as protected areas, but actual implementation of conservation measures is patchy.
- Many of these **areas are remote** and authorities have **little control over border regions** sometimes plagued with ongoing conflict. Example: Indo-Burma hotspot.

The need to preserve the HKH region is due to

- The mountains of the Hindu Kush Himalaya contain the **most biodiverse regions** in the world – some of it still undiscovered.
- About 35 new species were found every year in the Eastern Himalayas between 1998-2008.
- HKH encompasses lush tropical valleys, mountain forests, alpine meadows to high altitude grasslands and wetlands as well as arid steppes.
- These provide habitat to a diversity of rare endangered animals – including tigers, elephants, musk deer, red panda and snow leopards. Flora like Rhododendrons, orchids, rare medicinal and wild edible plants are found.
- There have been 2,500 species of rice identified in Nepal alone, and 100 types of basmati in the Western Himalayas.
- The variety of crops grown by farmers could serve as potential genetic resource for improving crop yield and pest resistance.
- The Hindu Kush Himalaya (HKH) is also one of the world's most culturally diverse regions. Its densely populated and cultivated valleys are home to over 1,000 different ethnic groups.

Conclusion:

The fragile situation calls for countries in the region and donor governments and the private sector to step up financial commitments for conservation. **Greater regional cooperation** is a must to take up such a region with great bio-diversity and cultural diversity.

Q) The air pollution problem is not merely a technological issue, but also a social concern. Discuss. (250 words)

[Indianexpress](https://www.indianexpress.com)

Directive word

Discuss- this is an all-encompassing directive which mandates us to write in detail about the key demand of the question. we also have to discuss about the related and important aspects of the question in order to bring out a complete picture of the issue in hand.

Key demand of the question.

The question wants us to write in detail about the issue of air pollution and bring out why it is not just a technological issue but also a social concern.

Structure of the answer

Introduction– write a few introductory lines about the problem of air pollution. E.g Air pollution is a silent killer in India, especially in the country's northern belt. Eighteen percent of the world's population lives in India, but the country bears 26 per cent of the global disease burden due to air pollution.



Body-

Discuss in points as to why the pollution problem is not merely a technological issue, but also a social concern. E.g

- *Globally, there have been several technological breakthroughs in evaluating and improving air quality.*
- *In India too, researchers, entrepreneurs and environmentalists have voiced the need for devices such as sensor-based monitors, air purifiers and smog towers.*
- *Their increasing use might improve air quality. But their energy footfall is likely to offset recent gains in energy efficiency.*
- *Air pollution is not a local issue that can be resolved by using household gadgets or placing devices at a few places.*
- *It is a nationwide concern that requires systemic measures, long-term planning, stringent action against those violating emission laws and standards.*
- *The improvement in the quality of lives of the rich and middle classes should not be at the cost of the poor etc.*

Conclusion— *based on your discussion, form a fair and a balanced conclusion on the given issue.*

Introduction:

- Air pollution is a silent killer in India, especially in the country's **northern belt**. 18% of the world's population lives in India, but the country bears 26% of the global disease burden due to air pollution.
- According to estimates of the **India State-Level Disease Burden Initiative** — published last year in Lancet Planetary Health — **over half the 12.4 lakh deaths in India** attributed to air pollution in 2017 were of individuals under the age of 70. The average life expectancy in the country could be 1.7 years higher, if air pollution is contained at a level at which human health isn't harmed.

Body:

The pollution problem is not merely a technological issue, but also a social concern because:

- Like all inequity, the **weakest and the most disenfranchised** suffer the worst health effects of toxic air first.
- It is **caused by human behaviours** and because it not only has a negative effect on the planet but also on people and society.
- **Poverty** exposes people to various stressors, such as polluted air, that increase pollution susceptibility.
- Some political parties have painted air pollution as an elite problem. It's the opposite. The rich have easy access to masks, purifiers and filters to protect themselves.
- The increasing use of gadgets like air purifiers by a certain section of people becomes problematic. These devices require constant maintenance and constitute a lopsided and expensive answer to the air pollution problem.
- It is the poor, homeless, those working outdoors who are most affected. They include ragpickers, safai karamcharis, auto-rickshaw drivers, traffic policemen, small farmers, daily-wage labourers (especially in the construction and mining sectors).
- Besides emphasising on clean energy devices, energy efficiency technologies, dust control mechanisms and clean transport facilities, the government must be alive to the concerns of the people whose livelihoods are affected when polluting industries are banned.
- The improvement in the quality of lives of the rich and middle classes should not be at the cost of the poor. This perspective now informs the air pollution management programmes of several countries.
- Some states of the US, Singapore and China, for instance, have come out with citizen-friendly remedies that emphasise dust management, soil conservation and ecological restoration.
- Air pollution is not a local issue that can be resolved by using household gadgets or placing devices at a few places.
- It is a nationwide concern that requires systemic measures, long-term planning, stringent action against those violating emission laws and standards.
- Ecologically, air pollution can cause serious environmental damages to the groundwater, soil, and air. It is also a serious threat to the diversity of life. Studies on the relationship between air pollution and reducing species



diversity clearly show the detrimental effects of environmental contaminants on the extinction of animals and plants species

The **Energy Policy Institute at the University of Chicago** has devised a new metric called the 'air quality life index'. It allows us to measure the systemic impact of air pollution in India relative to other countries. It has calculated that Indians lose 4.3 years of their lives on average simply because they live in India. Delhi's residents lose a full 10 years because they live in Delhi.

Conclusion:

- India requires **inter-departmental coordination, continuous monitoring, appropriate warning systems and adequate protocols for assessment of air quality.**
- There is a need for **auditors** who can enforce these standards. **Long-term solutions** to address air pollution require political will.
- The **private sector** should also start looking at social investments beyond statutory requirements.

Q) Discuss how India can deal with vagaries of climate change and its impact of agriculture ? (250 words)

[The hindu](#)

Why this question

The question explain India's risk profile to changing climatic conditions and explores the options our farmers have in coping with such changes.

Key demand of the question

The question expects us to first highlight the risk that India faces as a result of climate change and thereafter examine what kind of smart agriculture would be suited for India's needs to deal with such vagaries of nature.

Directive word

Discuss- This is an all-encompassing directive – you have to debate on paper by going through the details of the issues concerned by examining each one of them. You have to give reasons for both for and against arguments.

Structure of the answer

Introduction – highlight the fact that farmers in several parts of India have suffered as a result of unusual weather events.

Body

Discuss India's risk profile to climate change – India is fortunate to have the monsoon, but it is also uniquely vulnerable to rising temperatures, with the country ranked 14th on the Global Climate Risk Index 2019. The country has over 120 million hectares suffering from some form of degradation. This has consequences, especially for marginal farmers. According to one estimate, they may face a 24-58% decline in household income and 12-33% rise in household poverty through exacerbated droughts. With rain-fed agriculture practised in over 67% of our total crop area, weather variability can lead to heavy costs, especially for coarse grains

Discuss the potential solutions –

- *Promotion of conservation farming and dryland agriculture, with each village provided with timely rainfall forecasts*
- *weather-based forewarnings*
- *mandate to change planting dates, particularly for wheat, should be considered, which could reduce climate change induced damage by 60-75% etc*

Highlight what India should do in this regard.



Conclusion – give your view and discuss way forward.

Introduction:

- Bundelkhand region occupying parts of Uttar Pradesh and Madhya Pradesh was once blessed with over 800-900 mm rainfall annually. But over the last seven years, the amount of rainfall in this region has nearly halved, with just about 24 rainy days on average in the monsoon season. The adverse impact of climate change has resulted in crop failures and agrarian distress.
- A similar situation can be witnessed across the rain-fed regions of India. There is hardly any greenery in many villages, making it difficult for farmers to even maintain cattle.

Body:

India's risk profile to climate change:

- India is fortunate to have the monsoon, but it is also uniquely vulnerable to rising temperatures.
- India is ranked **14th on the Global Climate Risk Index 2019**.
- With **rain-fed agriculture** practised in **over 67% of our total crop area**, weather variability can lead to heavy costs, especially for coarse grains (which are mostly grown in rain-fed areas).
- According to one estimate, they may face a **24-58% decline in household income** and **12-33% rise in household poverty** through exacerbated droughts.
- India has **over 120 million hectares suffering from some form of degradation**.
- Rise in average temperatures would significantly impact our kharif crops.
- Any significant decline in summer rains would devastate Indian agriculture. Climate change related phenomena have consequences, especially for marginal farmers.
- They potentially face a huge decline in household income and rise in household poverty through exacerbated droughts.

The potential solutions:

Climate-smart agriculture:

- Promotion of conservation farming and dryland agriculture
- Providing each village with timely rainfall forecasts, along with weather-based forewarnings regarding crop pests and epidemics in various seasons
- Refocussing our agricultural research programmes on dryland research, with adoption of drought-tolerant breeds that could reduce production risks by up to 50%.
- A mandate to change planting dates, particularly for wheat, should be considered, which could reduce climate change induced damage by 60-75%.
- Organic agriculture enhances natural nutrient cycling and builds soil organic matter, which can also support resilience to climate change and sequester carbon in soils.

Finance & Credit:

- Expansion of insurance coverage to cover all crops, and an expanded Rural Insurance Development Fund
- Increase in supply of credit
- Subsidized interest rates through government support
- Basic income by the government to the most vulnerable farmers, as was recently announced

Compensatory afforestation:

- India is estimated to have lost over 26 million hectares of forest land and 20 million hectares of grasslands/shrublands between 1880 and 2013. Even now, urbanisation means that India consumes about 135 hectares of forest land a day.
- Actual on-ground implementation of compensatory afforestation is required to ensure we do not lose any net forest cover.
- State CAMPAs (Compensatory Afforestation Fund Management and Planning Authority) should be mandated to meet regularly.
- State-level forest departments record keeping must be revamped, particularly on assessment and realisation of dues on compensatory afforestation activities.

Empowering the Indian Forest Service:

- The Indian Forest Service (IFS) also needs restructuring. This needs to remain a specialised service, and not be run through deputations from other services.
- In the environmental domain, the IFS needs to be given the status equivalent to the police or the army.
- State-of-the-art training to its personnel must be provided.
- Specialisation should be encouraged in wildlife, tourism and protection for new recruits.



Green smart cities:

- Cities adjacent to national parks and sanctuaries, need to be converted into green smart cities with upgraded waste recycling processes.

Van Dhan Yojana:

- The Van Dhan Yojana, as adopted by the State government in Rajasthan, can be scaled up towards building a green mission to save our non-protected forests i.e. outside the existing national parks and sanctuaries.
- Heritage towns should be given more attention — cities like Sawai Madhopur, Bharatpur, Chikmagalur and Jabalpur

Way forward

- **Prudent investments and policy reform** can help make India resilient to climate change.
- Any adaptation to ongoing climate change will require **climate justice**.
- This can be induced by expansion of joint research and development partnerships like the U.S.-China Clean Energy Research Center, pairing India's emerging smart cities with green cities in the West.
- India needs to **decarbonise** by reducing emissions, there is no doubt about that. But the West needs to pay its bills too.

TOPIC: Linkages between development and spread of extremism; Role of external state and non-state actors in creating challenges to internal security, basics of cyber security; money-laundering and its prevention

Q) The possibility of emerging military technologies prompting inadvertent escalation and conflict cannot be ruled out. Comment. (250 words)

The hindu

Why this question

Emergence of technological warfare has gained prominence in recent times and conventional warfare has taken a backseat. In this context it is important to analyze how such developments can affect the conflicts between the countries.

Directive word

Comment- here we have to express our knowledge and understanding of the issue and form an overall opinion thereupon.

Key demand of the question.

The question wants us to express our knowledge and understanding of the rise and development of the emerging military technologies and express our opinion as to how they can lead to inadvertent escalation and hostility between nations.

Structure of the answer

Introduction— write a few introductory lines about the emerging military technologies. E.g The current focus in military thinking across the world is increasingly moving away from traditional heavy-duty military hardware to high-tech innovations such as artificial intelligence (AI), big data analytics, satellite jammers, hypersonic strike technology, advanced cyber capabilities and spectrum denial and high-energy lasers.

Body-

Discuss how these technologies can inadvertently lead to escalation of conventional conflicts between the various countries. E.g

- *In the light of the unprecedented capabilities that these systems offer, there is also an increased focus on developing suitable command and control as well as doctrinal concepts to accommodate and calibrate them.*
- *The arrival of these technologies might deeply frustrate strategic stability as we know it given their disruptive nature.*



- *Strategic stability in the contemporary international system, especially among the nuclear weapon states, depends on several age-old certainties, the most important being the issue of survivability of a state's nuclear arsenal and its ability to carry out a second strike after a first attack.*
- *Once accuracies get better, hypersonic glide vehicles replace conventional delivery systems, real time tracking and surveillance make major strides, and AI-enabled systems take over, survivability of nuclear arsenal, which lies at the heart of great power stability, could take a severe beating.*
- *While on the one hand, it is imperative for states to redesign their systems in the light of these new technologies, especially the digital and cyber components, this also makes the cyber- and digital-enabled systems vulnerable to covert cyberattacks.*
- *More so, given that such surreptitious attacks might take place in the early stages of a conflict, ensuing confusion and scare might lead to uncontrolled escalation with little time for assessment and judgement.*

Conclusion– based on your discussion, form a fair and a balanced conclusion on the given issue.

Background:-

- There is a revolution in military affairs with the current focus in military thinking across the world is increasingly moving away from traditional heavy-duty military hardware to high-tech innovations such as artificial intelligence (AI), big data analytics, satellite jammers, hypersonic strike technology, advanced cyber capabilities and spectrum denial and high-energy lasers.

How these emerging technologies can escalate conflicts :-

- **Affects strategic ability:-**
 - The arrival of these technologies might deeply frustrate strategic stability.
 - Once accuracies get better, hypersonic glide vehicles replace conventional delivery systems, real time tracking and surveillance make major strides, and AI-enabled systems take over, survivability of nuclear arsenal, which lies at the heart of great power stability and this could take a severe beating.
- **Drones:-**
 - The next generation of drones could include everything from hypersonic drones to Nano drones, in any range of forms with any type of weapons system that can be mounted on them.
- **Impact of deep sea drones:-**
 - There is an assumption that the naval leg of a nuclear triad is the most survivable part since it is hidden away in the depths of the ocean away from the adversary's gaze. However, **the potential ability of deep-sea drones to detect ballistic-missile armed nuclear submarines or SSBNs may make this assurance a thing of the past thereby frustrating traditional calculations.**
- **Fight amongst countries:-**
 - Both China and Russia fear that new American long-range non-nuclear strike capabilities could be used to deliver a disarming attack on a substantial part of their strategic forces or decapitate their nuclear command and control.
 - Some analysts believe that Beijing is in the lead position in emerging technologies with potential military applications such as quantum computing, 3D printing, hypersonic missiles and AI. If indeed, Beijing continues to develop hypersonic systems, for instance, it could potentially target a range of targets in the U.S. their potential to increase the risks of intentional and inadvertent nuclear use.
 - India might, in turn, consider developing some of these technologies which will create dilemmas for Islamabad. The cascading strategic competition then looks unavoidable at this point, and that is worrisome.
- Many analysts believe that the utilization of **AI and robotics will utterly revolutionize warfare, much as the introduction of tanks, airplanes, and nuclear weapons transformed the battlefields of each world war.**
 - The United States and its rivals are pursuing multiple weapons systems employing various combinations of AI, autonomy, and other emerging technologies. These include, for example, **unmanned aerial vehicles (UAVs) and unmanned surface and subsurface naval vessels capable of being assembled in swarms, or "wolfpacks," to locate enemy assets such as tanks, missile launchers, submarines and, if communications are lost with their human operators, decide to strike them on their own.**



- some of the weapons now in development, such as unmanned anti-submarine wolfpacks and the TBG system, could theoretically endanger the current equilibrium in nuclear relations among the major powers, which rests on the threat of assured retaliation by invulnerable second-strike forces, by opening or seeming to open various first-strike options.
- Not only are AI-equipped machines vulnerable to error and sabotage, they lack an ability to assess the context of events and may initiate inappropriate or unjustified escalatory steps that occur too rapidly for humans to correct.
- **Hypersonics:-**
 - The Defense Department of USA also has funded the development of two advanced weapons systems employing hypersonic technology: a hypersonic air-launched cruise missile and the Tactical Boost Glide (TBG) system, encompassing a hypersonic rocket for initial momentum and an unpowered payload that glides to its destination.
 - Anti-missile systems that may work against existing threats might not be able to track and engage hypersonic vehicles, potentially allowing an aggressor to contemplate first-strike disarming attacks on nuclear or conventional forces while impelling vulnerable defenders to adopt a launch-on-warning policy.
 - The development of hypersonic weaponry poses a significant threat to the core principle of assured retaliation, on which today's nuclear strategies and arms control measures largely rest. The development of hypersonic munitions also introduces added problems of proliferation.
- **Cyberspace:-**
 - In the cyberspace realm, a variety of offensive and retaliatory cyberweapons are being developed by the U.S. Cyber Command for use against hostile states found to be using cyberspace to endanger U.S. national security.
 - Warfare in cyberspace could also threaten nuclear stability by exposing critical early-warning and communications systems to paralyzing attacks and prompting anxious leaders to authorize the early launch of nuclear weapons.
- **Autonomous weapons:-**
 - The introduction of these and other such weapons on future battlefields will transform every aspect of combat and raise a host of challenges for advocates of responsible arms control.
 - The use of fully autonomous weapons in combat, for example, automatically raises questions about the military's ability to comply with the laws of war and international humanitarian law, which require belligerents to distinguish between enemy combatants and civilian bystanders.

Way forward:-

- Mapping out the implications of the new technologies for warfare and arms control and devising effective mechanisms for their control are a mammoth undertaking that requires the **efforts of many analysts and policymakers around the world.**
- More importantly, it is essential to consider how combat in cyberspace might spill over into the physical world, triggering armed combat and possibly hastening the pace of escalation.
- **Bilateral and multilateral mechanism:-**
 - These issues logically could be addressed bilaterally, such as through the currently stalled U.S.-Russian nuclear stability talks, and when appropriate in various multilateral forums.
- As the weaponization of the pivotal technologies proceeds, it will also be useful to consider **how existing agreements might be used as the basis for added measures intended to control entirely novel types of munitions.**
 - The CCW can be used as a framework on which to adopt additional measures in the form of protocols controlling or banning the use of armaments, such as autonomous weapons systems, not imagined at the time of the treaty's initial signing in 1980.
 - Some analysts have suggested that the Missile Technology Control Regime could be used as a model for a mechanism intended to prevent the proliferation of hypersonic weapons technology.

Q) Left Wing Extremism (LWE) is showing a downward trend, but still affects many parts of the country. Briefly explain the Government of India's approach to counter the challenges posed by LWE. (250 words)



Key demand of the question

The question expects us to talk about the status quo with respect to threats posed by left wing extremists to the country. Thereafter, we need to highlight the steps taken by the country to deal with such threats and discuss the way forward.

Structure of the answer

Introduction – Explain about left wing extremism – term officially used to describe Maoist insurgency in selected states of Central and Eastern India.

Body

Highlight the status quo of the threat posed by left wing extremists to the security of the country.

Discuss the steps taken by the government to deal with this threat

Discuss the Samadhan doctrine launched by MHA – Controlling arms supply to Maoist using GPS trackers and Unique Identification number (UID) for Gelatin sticks and explosives manufacturers. Each CRPF battalion deployed in the Maoist hotbed is given atleast one UAV. More helicopter support for operations, including private helicopter services. Joint Task Forces along inter-State boundaries, better inter-state coordination and intelligence sharing. Stricter implementation of Prevention of Money Laundering Act (PMLA) to choke funding to LWE groups.

- Developmental approach such as through Vanbandhu Kalyan Yojana for holistic development of the tribal people by targetting their education, employment, healthcare, infrastructure and connectivity; Mines and Minerals (Development and Regulation) Act was amended to setup District Mineral Foundation (DMF). Through this fund, all mining districts receive portion of the mining royalties. The money is spend on the development activities decided by the local people etc

Analyze the impact of this two pronged strategy

Conclusion – Give your view on the impact of the governmental measures and discuss way forward.

Background:-

- Left Wing Extremism (LWE) movement has its roots in the Naxalbari area W.Bengal in the 1960's. These Maoists insurgents started running a parallel system of administration in parts of central and Eastern India. They kill civilians, destroy public buildings and extract ransom from businessmen. In the recent years, however, LWE movement is showing decline, **because of the shift in the approach of the successive Governments**

Indian approach to counter the challenges passed by LWE:

- **Government approach on security front:-**
 - Government would try to bring the insurgents on negotiation table, and offer ceasefire. But the insurgents would misuse the ceasefire to mobilize more weapons and troops.
 - Central Armed Police Forces (CAPF) would conduct "Area domination exercises", But when insurgents feel strong presence of CRPF, they would simply vanish, and the moment CRPF retreated, they would come back in the area.

Because of the above constraints government changed the strategy. **Instead of offering ceasefire or conducting area domination exercises, it focused on (surgical) strikes based on hard intelligence.** As a result, many of the key leaders have been arrested or eliminated, and the armed insurgent camps have been decimated.

- Government's surrender schemes for Maoists is also dwindling their manpower.
- Special Infrastructure Scheme (SIS) to construct fortified police stations.
- 2016's demonetization drive also affected the LWE-funding
- Further, in 2017, Home Ministry launched '**SAMADHAN**' doctrine. It involves:
 - Controlling arms supply to Maoist using GPS trackers and Unique Identification number (UID) for Gelatin sticks and explosives manufacturers.
 - Each CRPF battalion deployed in the Maoist hotbed is given atleast one UAV.
 - More helicopter support for operations, including private helicopter services.
 - Joint Task Forces along inter-State boundaries, better inter-state coordination and intelligence sharing.
 - Stricter implementation of Prevention of Money Laundering Act (PMLA) to choke funding to LWE groups.



Government approach on Development front:-

- In 2014: Ministry of Tribal Affairs launched **Vanbandhu Kalyan Yojana** for holistic development of the tribal people by targeting their education, employment, healthcare, infrastructure and connectivity.
- In 2015: **Mines and Minerals (Development and Regulation) Act was amended to setup District Mineral Foundation (DMF)**. Through this fund, all mining districts receive portion of the mining royalties. The money is spend on the development activities decided by the local people.
- **Civic Action Plan:** Each CRPF company is given Rs.3 lakh for holding medical camps, sanitation drives, sports meets, distribution of study material to children, minor repairs of school building, road, bridges to build confidence among the locals.
- **Media Action Plan:** Each district is given Rs.7 lakh to advertise Government schemes.
- Union Government is organizing extensive training and capacity building programs for of the state service officials for implementation of Forest Rights act and PESA Act.
- **Additional Central Assistance' (ACA) for LWE affected districts** for creating public infrastructures and services such as school, hospital, road and rail connectivity, mobile connectivity, and electricity network.
- Schemes employment, skill development, ITI construction etc. have special funds earmarked for LWE with Key Performance Indicators (KPI).
- **Union Government implemented the 14th Finance Commission report** due to which LWE State Governments have more funds at their disposal to carry out tailor-made developmental schemes as per their requirements.
- In order to holistically address the LWE problem in an effective manner, Government has formulated **National Policy and Action Plan adopting multi-pronged strategy** in the areas of security, development, ensuring rights & entitlement of local communities etc.

Conclusion:

- As a result of the aforementioned initiatives on the security and development fronts, the number of violent incidents from LWE insurgency has declined in the present decade.

Q) What challenges do external non state actors pose to India's security ? (250 words)

Key demand of the question

The question expects us to first explain who external non state actors are and thereafter explain about the multifaceted threat that they pose to India's security.

Structure of the answer

Introduction – Highlight that India has been facing internal security threats from various external and internal state and non state actors since independence.

Body

Explain about external non state actors – Non-state actors are individuals or organizations that have powerful economic, political or social power and are able to influence at a national and sometimes international level but do not belong to or allied themselves to any particular country or state. They include NGOs, MNCs, religious outfits, Drug Cartels, Mafias, terrorist groups etc. they may work in tandem for the peace, stability and development of a country or they may work against the State.

Discuss the threat that they pose to internal security in India such as insurgency, terrorism, cyber security, communalism, counterfeit currency etc

Discuss how should India deal with such challenges

Conclusion – Highlight the risk profile of the country based on these threats and discuss way forward.

Background:-

- India has been facing challenges on the front of internal security since independence from various state and non-state actors. Politico-social and economic sphere of sovereign state has been controlled by the popular elected government. But peace and security can be disturbed by some external and non-state actor, through various means and ways.
- Countries surrounding India have been active in exploiting the volatile situation presented by the turmoil in the northeast. Not only countries such as China, Pakistan, Bangladesh and Myanmar, but also smaller powers



such as Bhutan and Nepal have been involved in the region. **Through political backing, economic assistance, logistic support, military training or arms supplies these countries have varyingly contributed to the ongoing violence in this region.**

Non-state actors:

- Non-state actors are individuals or organizations that have powerful economic, political or social power and are able to influence at a national and sometimes international level but do not belong to or allied themselves to any particular country or state.
- They include NGOs, MNCs, religious outfits, Drug Cartels, Mafias, terrorist groups etc. they may work in tandem for the peace, stability and development of a country or they may work against the State.

Challenges posed by non state actors for the Indian internal security:

- **Insurgency:**
 - North-East suffers from violent movements based upon ethnic identities leading to clashes. China is alleged to support such acts for instance . ULFA members of Assam was given shelter by China.
- **Terrorism:**
 - Pakistan has been a major exporter of terrorism to India. Non-state actors like terrorist groups for instance Lashkar-e-Taiba, Jaish-e-Mohammad are a continuous threat.
 - Non state actor -sponsored terrorism, often motivated by fundamentalist ideologies, backed by secretive but efficient financial networks, use of IT, clandestine access to chemical-biological and nuclear materials, and illicit drug trafficking, has emerged as a major threat to international stability.
 - These groups aim to not only create instability in states like J&K, they also have a larger aim of destabilising the country. This is done through sporadic terrorist strikes, which spreads terror and panic. This could also adversely affect the ability of the Indian state to pursue economic modernisation.
- **Naxalism:**
 - Left wing extremism affects states like Chhattisgarh, Jharkhand and West Bengal.
- **Drug smuggling:**
 - Inter and Intra state trafficking takes place, through golden crescent and golden triangle routes. Drugs from Pakistan, Afghanistan and Iran has affected Punjab.
- **Human-trafficking:**
 - Child and women trafficking takes place via Bangladesh and Nepal.
- **Counterfeit currency:**
 - It corrodes economy from inside, by facilitating black money and money laundering activities as well as funding terrorism, which itself creates a demand for fake currency, thereby creating a positive feedback loop. This is the issue arising especially from Pakistan.
- **Communalism:**
 - Propagandas are run and funded by enemy country and other non-state actors to destabilize India by damaging the socio-religious fabric and ensure riots.
- **Cyber Security:**
 - Recent cyber-attacks by Legion, ATM skimming are examples. Pakistani hackers often hack government websites.
- They can also incite people for regionalism thus demanding their separate state which further **increases secessionist tendency**

Conclusion:

- Both state and non-state factors from outside have created problems in our internal security framework. Hence while it is imperative to guard our borders and strengthen our diplomacy, on the other hand, we need to check the various non-state actors who come in hidden forms.

Q) Evaluate whether India is adequately prepared to handle the threat posed by emerging disruptive technologies ? (250 words)

The hindu

Why this question

The article examines the new age security challenges posed by emerging disruptive technologies and analyzes the effectiveness of the measures taken by India to deal with such challenges. This question



would enable you to understand the changing nature of threats as a result of technological advancements along with India's response to it.

Directive word

Evaluate – When you are asked to evaluate, you have to pass a sound judgement about the truth of the given statement in the question or the topic based on evidences. You have to appraise the worth of the statement in question. There is scope for forming a personal opinion here.

Key demand of the question

The question expects us to explain the changing nature of threat posed by emerging disruptive technologies, examine the steps taken by India to deal with such challenges and evaluate their effectiveness.

Structure of the answer

Introduction – highlight that technological advancements have transformed the nature of security threats.

Body

Explain about the new age security threats

- *current focus in military thinking across the world is increasingly moving away from traditional heavy-duty military hardware to high-tech innovations such as artificial intelligence (AI), big data analytics, satellite jammers, hypersonic strike technology, advanced cyber capabilities and spectrum denial and high-energy lasers*
- *Strategic stability in the contemporary international system, especially among the nuclear weapon states, depends on several age-old certainties, the most important being the issue of survivability of a state's nuclear arsenal and its ability to carry out a second strike after a first attack.*
- *Once accuracies get better, hypersonic glide vehicles replace conventional delivery systems, real time tracking and surveillance make major strides, and AI-enabled systems take over, survivability of nuclear arsenal, which lies at the heart of great power stability, could take a severe beating.*
- *Disruptive new technologies, worsening relations between Russia and America and a less cautious Russian leadership than in the cold war have raised fears that a new era of strategic instability may be approaching*

Highlight India's response to such challenges

- *Government decided to set up three new agencies — the Defence Cyber Agency, the Defence Space Agency and the Special Operations Division — in order to address the new age challenges to national security*

Discuss issues involved

- *The issue of coordination*
- *The issue of their relative importance in the pecking order of defence planning*
- *China factor etc*

Conclusion – Give a fair and balanced opinion and discuss way forward.

Background:-

- There is a revolution in military affairs with the current focus in military thinking across the world is increasingly moving away from traditional heavy-duty military hardware to high-tech innovations such as artificial intelligence (AI), big data analytics, satellite jammers, hypersonic strike technology, advanced cyber capabilities and spectrum denial and high-energy lasers.



How these emerging technologies can escalate conflicts :-

- **Affects strategic ability:-**
 - The arrival of these technologies might deeply frustrate strategic stability.
 - Once accuracies get better, hypersonic glide vehicles replace conventional delivery systems, real time tracking and surveillance make major strides, and AI-enabled systems take over, survivability of nuclear arsenal, which lies at the heart of great power stability and this could take a severe beating.
- **Drones:-**
 - The next generation of drones could include everything from hypersonic drones to Nano drones, in any range of forms with any type of weapons system that can be mounted on them.
 - **Impact of deep sea drones:-**
 - There is an assumption that the naval leg of a nuclear triad is the most survivable part since it is hidden away in the depths of the ocean away from the adversary's gaze. However, **the potential ability of deep-sea drones to detect ballistic-missile armed nuclear submarines or SSBNs may make this assurance a thing of the past thereby frustrating traditional calculations.**
 - **Fight amongst countries:-**
 - Both China and Russia fear that new American long-range non-nuclear strike capabilities could be used to deliver a disarming attack on a substantial part of their strategic forces or decapitate their nuclear command and control.
 - Some analysts believe that Beijing is in the lead position in emerging technologies with potential military applications such as quantum computing, 3D printing, hypersonic missiles and AI. If indeed, Beijing continues to develop hypersonic systems, for instance, it could potentially target a range of targets in the U.S. their potential to increase the risks of intentional and inadvertent nuclear use.
 - **India might, in turn, consider developing some of these technologies which will create dilemmas for Islamabad.** The cascading strategic competition then looks unavoidable at this point, and that is worrisome.
 - Many analysts believe that the utilization of **AI and robotics will utterly revolutionize warfare, much as the introduction of tanks, airplanes, and nuclear weapons transformed the battlefields of each world war.**
 - some of the weapons now in development, such as unmanned anti-submarine wolfpacks and the TBG system, could theoretically endanger the current equilibrium in nuclear relations among the major powers, which rests on the threat of assured retaliation by invulnerable second-strike forces, by opening or seeming to open various first-strike options.
 - Not only are AI-equipped machines vulnerable to error and sabotage, they lack an ability to assess the context of events and may initiate inappropriate or unjustified escalatory steps that occur too rapidly for humans to correct.
 - **Hypersonics:-**
 - Anti-missile systems that may work against existing threats might not be able to track and engage hypersonic vehicles, potentially allowing an aggressor to contemplate first-strike disarming attacks on nuclear or conventional forces while impelling vulnerable defenders to adopt a launch-on-warning policy.
 - The development of hypersonic weaponry poses a significant threat to the core principle of assured retaliation, on which today's nuclear strategies and arms control measures largely rest. The development of hypersonic munitions also introduces added problems of proliferation.
 - **Cyberspace:-**
 - Warfare in cyberspace could also threaten nuclear stability by exposing critical early-warning and communications systems to paralyzing attacks and prompting anxious leaders to authorize the early launch of nuclear weapons.
 - **Autonomous weapons:-**
 - The introduction of these and other such weapons on future battlefields will transform every aspect of combat and raise a host of challenges for advocates of responsible arms control.



- The use of fully autonomous weapons in combat, for example, automatically raises questions about the military's ability to comply with the laws of war and international humanitarian law, which require belligerents to distinguish between enemy combatants and civilian bystanders.

Way forward:-

- Mapping out the implications of the new technologies for warfare and arms control and devising effective mechanisms for their control are a mammoth undertaking that requires the **efforts of many analysts and policymakers around the world.**
- More importantly, it is essential to consider how combat in cyberspace might spill over into the physical world, triggering armed combat and possibly hastening the pace of escalation.
- As the weaponization of the pivotal technologies proceeds, it will also be useful to consider **how existing agreements might be used as the basis for added measures intended to control entirely novel types of munitions.**
 - The CCW can be used as a framework on which to adopt additional measures in the form of protocols controlling or banning the use of armaments, such as autonomous weapons systems, not imagined at the time of the treaty's initial signing in 1980.
 - Some analysts have suggested that the Missile Technology Control Regime could be used as a model for a mechanism intended to prevent the proliferation of hypersonic weapons technology.

Q) Social media has emerged as a major threat to nation's internal security. Discuss. (250 words)

Key demand of the question

The question expects us to discuss the nature of threat to internal security caused by social media. Thereafter, it expects us to discuss why it is difficult to negate this threat and highlight way forward.

Directive word

Discuss – This is an all-encompassing directive – you have to debate on paper by going through the details of the issues concerned by examining each one of them. You have to give reasons for both for and against arguments.

Structure of the answer

Introduction – Explain that threat due to social media is on the rise as seen in elections in Phillipines, USA etc

Body

Discuss the nature of threat due to social media

- *The rapid spread of false information through social media is among the emerging risks identified by the World Economic Forum in its Global Risks 2013 Report.*
- *Cyber terrorism*
- *Recruitment drives*
- *Spreading fake news etc*

Discuss challenges in monitoring social media

- *Server Location and Laws of Different Countries: Lack of Geographical Boundaries makes social media regulation an arduous task. Major Complicating Factors to secure the networks and Media Much of the hardware and software that make up the communications ecosystem is sourced externally.*
- *Encrypted Message: Use of phones/whatsapp to send and receive messages, concerns the government because the communications sent via such devices and applications are encrypted and could not be monitored and consequently hinders the country's efforts to fight terrorism and crime.*



- *Complicated Networks: The task of securing the networks is also complicated by the fact that much of the infrastructure is in the hands of private companies who see measures such as security auditing and other regulations and frameworks as adding to their costs. source of Origin is difficult to find out.*

Highlight the steps India has taken so far – discuss measures such as – National Intelligence Grid (NATGRID), Central Monitoring System (CMS), Internet Spy System Network and Traffic Analysis System (NETRA) of India, National Critical Information Infrastructure Protection Centre (NCIPC) of India, National Cyber Coordination Centre (NCCC) of India, Tri Service Cyber Command for Armed Forces of India

Conclusion – Give your view and discuss way forward

Background:-

- In the internet of things, ideas take a gigantic leap every day and disruption (both good and bad) is the norm. One such disruption which has revolutionised the way information is exchanged in real time has been the advent of Social media.
- It has triggered an information revolution the world over that has forced people, governments and organisations, both public and private, to rethink strategies on how they manage their information and engage in an increasingly interconnected world

Why is social media threat to nation's internal security :-

- The advantages of Social media are so many but they are posing threat to Internal Security in various forms like **Cyber Terrorism, Fraud, crime, spreading violence, etc.**
- According to the Cisco 2013 Annual Security Report, the highest concentration of online security threats are on mass audience sites, including social media. The rapid spread of false information through social media is among the emerging risks identified by the World Economic Forum in its Global Risks 2013 Report.
- With limited government oversight, industry standards or incentives to educate users on security, privacy and identity protection, **users are exposed to identity theft and fr**
- Additionally, these platforms have huge confidential user information, and are likely vulnerable to **outside or inside attack which is detrimental to Internal Security.**
- **Cyber Terrorism:**
 - The biggest challenge for internal security of nation through social networking site is cyber terrorism.
 - Today terrorists select Social Media as a practical alternative to disturb the function of nations and other business activities because this technique has potential to cause huge damage. It poses enormous threat in international system and attracts the mass media, the security community, and the information technology corporation.
 - At the same time, due to the convenience, affordability and broad reach of social media platforms like YouTube, Facebook and Twitter, terrorist groups have increasingly used social media to further their goals and spread their message.
 - Social Media became a platform for coordination of plans of attack, communication with cells, or propaganda and information and spread of hate campaign or messages that can hurt the sentiments of people.
 - Chat rooms and electronic forums enable the insurgent and extremists groups to communicate with members and supporters all over the world, to recruit new followers and to share information at little risk of identification by authorities.
- **Fraud:**
 - Social networking sites also invite fraudsters to take excellent opportunity to become wealthy by applying deceiver schemes.
- **Criminal Activity and Money laundering:**
 - Social networking sites also pose major challenge in financial and organized crime which destabilizes the system. It creates threat to a company's security because of what employees might disclose and they are on prime target for cyber criminals.
- **International users:**
 - The other national and international users such as the political parties, NGO's, hackers pose a serious threat using the social media. For example, during the civil turmoil in the Arab Spring Uprising, the various governments were threatened through the social media.



- **To Bring Revolution:**
 - Some countries in the world feel threatened by the fact that social media can bring the people together and thus, create a revolution. This in turn can cause political instability
- **Communal Violence and Fanning Tensions:**
 - Importantly, social media also seems to be playing a significant role in polarising different communities in India and compounding India's Security challenges. The viral videos and false updates of communal clashes, riots and terrorists attack have created a massive impact in the life of public.
 - Mobile and social network interface was used to send **offensive clips and hate messages that triggered panic** and mass exodus of north east Indians from large parts of India in the aftermath of the ethnic clashes in Assam in 2012.
 - In September 2013, a morphed video on YouTube was used to **fan communal riots in Muzaffarnagar** in Uttar Pradesh and led to mass panic.
- **Virtual Community:**
 - Popular social networking websites are another means of attracting potential members and followers. These types of virtual communities are growing increasingly popular all over the world, especially among younger demographics. This can build Anti-national Sentiments among Society.

Although social media has the potential to be a threat to national security, it also has the opportunity to strengthen National Security and to be used to benefit the Government:-

- One of the fastest growing ways that Governments are using social media is as a warning or trend prevention tool. As a monitoring tool, the government is able to recognize the first signs of any hostile or potentially dangerous activity by collecting and analyzing messages in order to try to predict events that could be a danger to National Security.
- Another important use of social media by the government is as an institutional Communication Tool. Social Media provides a medium that creates cohesion between federal agencies by increasing both communication and transparency.

Way forward:-

- **Institutionalise the blueprint for a National Social Media Policy:**
 - The Indian establishment needs to recognise the medium and grant it a legal status if it needs to deal with the multitude of challenges that rise out of it effectively.
 - The National Cyber Security Policy needs to be revised to include social media challenges **which are distinct from the cyber security threats.**
- **Replicate "Social Media Labs" across the country.**
- serious and clear headed debate on the issue of freedom of expression, social responsibility, anonymity and data security is the need of the hour.

Q) What do you understand by cyber terrorism. Discuss. Also discuss the forms of cyber terrorism. (250 words)

Reference

Why this question

There has been an increase in incidents of Cyber terrorism across the world, including India. In this context it is important for us to understand the term in detail.

Directive word

Discuss- this is an all-encompassing directive which mandates us to write in detail about the key demand of the question. we also have to discuss about the related and important aspects of the question in order to bring out a complete picture of the issue in hand.

Key demand of the question.

The question wants us to write in detail about the meaning of the term, cyber terrorism. It also wants us to discuss in detail about the forms of cyber terrorism.



Structure of the answer

Introduction- write a few introductory lines about the term cyber terrorism. E.g Cyber terrorism can be defined as electronic attacks from cyberspace from both the internal and external networks, particularly from the Internet that emanate from various terrorist sources with different set of motivations and are directed at a particular target.

Body-

Discuss about the term in detail. E.g

- Cyber terrorism is the convergence of cyberspace and terrorism and it is different from cyber crimes, such as data theft, bank fraud etc.
- It is executed via cyberspace by individuals, groups or organizations who are directly influenced by some terrorist movements or/and its leaders; and motivated by a desire to effect political or ideological change;
- leading to violence that reaches physical and psychological repercussions beyond the immediate victim or target.

Discuss the forms of cyber terrorism. E.g

- Hybrid Cyber Terrorism- use of the Internet for terrorist activities such as propaganda, recruitment, radicalization, fundraising, data mining, communication, training, and planning for actual terrorist attacks.
- Pure Cyber Terrorism

Conclusion- based on your discussion, form a fair and a balanced conclusion on the given issue.

Cyber terrorism:-

- Cyber terrorism is the convergence of cyberspace and terrorism and it is different from cybercrimes, such as data theft, bank fraud etc.
- It is generally understood as an act that is
 - executed via cyberspace by individuals, groups or organizations who are directly influenced by some terrorist movements or/and its leaders
 - motivated by a desire to effect political or ideological change leading to violence that reaches physical and psychological repercussions beyond the immediate victim or target.

Forms of cyber terrorism:-

- **Hybrid Cyber Terrorism**
 - Hybrid cyber terrorism is the use of the Internet for terrorist activities such as propaganda, recruitment, radicalization, fundraising, data mining, communication, training, and planning for actual terrorist attacks.
 - **Propaganda and Psychological Warfare:**
 - The Internet is being used by terrorists and terrorist organizations to spread and manage their propaganda through information warfare, to impart their ideology, to conduct psychological warfare as well as to radicalize and recruit new members from all over the world, through terrorist websites, online magazines, and various social media platforms.
 - **Communication and Networking:**
 - Terrorists groups have used social media platforms and encrypted messaging system applications , online gaming chat rooms, coded messages or steganography for covert discussions.
 - For instance, VoIP phone services were used during the Mumbai attacks in 2008.
 - **Fundraising:**
 - Funding for terrorist related activities is also being done by donation through social media platforms and blogs, and the use of the bitcoin digital currency.
 - **Data Mining, Recruitment and Training:**
 - Terrorists are using the Internet for data mining to collect information of particular places and individuals as potential targets for attacks as well as recruitment.



- **Pure Cyber Terrorism**
 - Pure cyber terrorism refers to direct attacks on a victim's cyber infrastructure to achieve the political, religious and ideological objectives.
- **Destructive and disruptive cyber terrorism can be further differentiated:**
 - Destructive cyber terrorism is the manipulation and corruption of information system functions to damage or destroy virtual and physical assets. The most popular weapon is the use of computer viruses and worms; Trojans and ransomware.
 - Disruptive cyber terrorism is described as hacking designed to take down websites and disrupt the normal lifestyle, which relies on Critical infrastructure supporting medical utility, transportation, and financial systems.

Q) What are the statutory and the institutional framework for dealing with money laundering in India. Discuss. (250 words)

Reference

Why this question

There has been a spate of money laundering cases in India in recent years. India has also been successful in seeking extradition of several high profile economic offenders from foreign countries. In this context it is essential to understand the framework for dealing with money laundering in India.

Directive word

Discuss- this is an all-encompassing directive which mandates us to write in detail about the key demand of the question. we also have to discuss about the related and important aspects of the question in order to bring out a complete picture of the issue in hand.

Key demand of the question.

The question wants us to write in detail about the statutory and the institutional framework for dealing with money laundering in India.

Structure of the answer

Introduction– Write a few introductory lines about the money laundering. E.g describe the meaning and process of money laundering in brief lines.

Body-

Discuss the statutory framework for dealing with money laundering in India. E.g

- PMLA Act
- It prescribes obligation of banking companies, financial institutions and intermediaries for verification and maintenance of records of the identity of all its clients and also of all transactions and for furnishing information of such transactions in prescribed form to the Financial Intelligence Unit-India (FIU-IND).
- It empowers the Director of FIU-IND to impose fine on banking company, financial institution or intermediary if they or any of its officers fails to comply with the provisions of the Act as indicated above.
- PMLA envisages setting up of an Adjudicating Authority to exercise jurisdiction, power and authority conferred by it essentially to confirm attachment or order confiscation of attached properties.

Discuss the regulatory framework. E.g

- ED and FIU
- PMLA empowers certain officers of the Directorate of Enforcement to carry out investigations in cases involving offence of money laundering and also to attach the property involved in money laundering.



- *Financial Intelligence Unit – India in 2004 as the central national agency responsible for receiving, processing, analyzing and disseminating information relating to suspect financial transactions.*
- *FIU-IND is also responsible for coordinating and strengthening efforts of national and international intelligence, investigation and enforcement agencies in pursuing the global efforts against money laundering and related crimes. FIU-IND is an independent body reporting directly to the Economic Intelligence Council (EIC) headed by the Finance Minister.*

Conclusion– based on your discussion, form a fair and a balanced conclusion on the given issue.

Background:-

- Money laundering is a process where the proceeds of crime are transformed into apparently legitimate money or other assets. It is the processing of criminal proceeds to disguise its illegal origin.
- In simple words, it can be defined as the act of making money that comes from one source to look like it comes from another source.
- Money laundering is a single process however, its cycle can be broken down into three distinct stages namely, placement stage, layering stage and integration stage.

International framework:-

- **THE VIENNA CONVENTION**
 - It was the first major initiative in the prevention of money laundering held in December 1988.
 - This convention laid down the groundwork for efforts to combat money laundering by obliging the member states to criminalize the laundering of money from drug trafficking.
 - It promotes international cooperation in investigations and makes extradition between member states applicable to money laundering.
 - . The convention also establishes the principle that domestic bank secrecy provisions should not interfere with international criminal investigations.
- **The FINANCIAL ACTION TASK FORCE (FATF):-**
 - The FATF is an inter-governmental body established at the G7 summit at Paris in 1989 with the objective to set standards and promote effective implementation of legal, regulatory and operational measures to combat money laundering and terrorist financing and other related threats to the integrity of the international financial system

Statutory framework:-

- In India, before the enactment of **Prevention of Money Laundering Act, 2002 (PMLA)** the major statutes that incorporated measures to address the problem of money laundering were:
 - The Income Tax Act, 1961
 - The Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974 (COFEPOSA)
 - The Smugglers and Foreign Exchange Manipulators Act, 1976 (SAFEMA)
 - The Narcotic Drugs and Psychotropic Substances Act, 1985 (NDPSA)
 - The Benami Transactions (Prohibition) Act, 1988
 - The Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988
 - The Foreign Exchange Management Act, 2000, (FEMA)
- **PMLA Act:-**
 - It prescribes obligation of banking companies, financial institutions and intermediaries for verification and maintenance of records of the identity of all its clients and also of all transactions and for furnishing information of such transactions in prescribed form to the Financial Intelligence Unit-India (FIU-IND).
 - It empowers the **Director of FIU-IND to impose fine on banking company**, financial institution or intermediary if they or any of its officers fails to comply with the provisions of the Act as indicated above.
 - **PMLA envisages setting up of an Adjudicating Authority** to exercise jurisdiction, power and authority conferred by it essentially to confirm attachment or order confiscation of attached properties.

Institutional framework:-

- **Enforcement directorate:-**
 - PMLA empowers certain officers of the Directorate of Enforcement to carry out investigations in cases involving offence of money laundering and also to attach the property involved in money laundering.



- **Financial Intelligence Unit :-**

- It was established in India in 2004 as the central national agency responsible for receiving, processing, analyzing and disseminating information relating to suspect financial transactions.
- FIU-IND is also responsible for coordinating and strengthening efforts of national and international intelligence, investigation and enforcement agencies in pursuing the global efforts against money laundering and related crimes.
- FIU-IND is an independent body reporting directly to the Economic Intelligence Council (EIC) headed by the Finance Minister.

Q) The nexus between terrorism and organized crime presents a major challenge for India. Discuss. (250 words)

Reference

Why this question

Terrorism is often closely linked to organized crime. It is important to discuss how the issue poses challenges to India.

Directive word

Discuss- this is an all-encompassing directive which mandates us to write in detail about the key demand of the question. we also have to discuss about the related and important aspects of the question in order to bring out a complete picture of the issue in hand.

Key demand of the question.

The question wants us to write in detail as to how terrorism and terrorism nexus operates in India and what are the challenges India faces from this nexus.

Structure of the answer

Introduction– write a few introductory lines about India. E.g mention its geographical location and its hostile neighbourhood.

Body-

Discuss the challenges posed by the terrorism-organized crime nexus to India. E.g

- *While terrorism is an act of political defiance that is carried out overtly, organized crime is mostly conducted covertly to earn profits.*
- *While terrorism results in large scale violence, conducted to exploit political objectives and religious or nationalist sentiments, crime is largely nonviolent and is carried out for economic objectives.*
- *Terrorist groups need a steady stream of funding to finance their operations and often resort to a plethora of illegal activities which includes the Hawala system, abuse of charities or donations from the diasporic community, credit card fraud and illegal arms and the narcotics sale.*
- *Therefore crying and terrorism has a symbiotic relationship with organizational operational and ideological links that are cultivated through clothes coordination are in some cases through fostering strong linkages.*
- *Rapid advances in telecommunication Technologies particularly social media platforms, the dark web, and illegal payment channels have strengthened the crime-terror Nexus which at times can acquire translational character.*
- *India has a long history of fighting the separatist insurgency and controlling civil conflicts that are spread across different parts of the country.*
- *There are several conditions that make India particularly prone to transnational organized crime and terrorism- proximity to major heroin producers and exporters regional drug trade through overland routes and the sea.*



- *Moreover, groups willing to take risks, pervasive prop poverty and protracted nature of low-intensity conflict have also created a permissible environment for the crime-terror Nexus in India.*
- *The major conflict zones in India are concentrated in Jammu and Kashmir North Eastern states of Assam Nagaland and Manipur and the most area of Chhattisgarh, Telangana and Andhra Pradesh.*

Conclusion- *based on your discussion, form a fair and a balanced conclusion on the given issue.*

Background :-

- India has a long history of fighting separatist insurgencies, terrorism and civil conflicts that are spread across different parts of the country. In this light the challenges posed by terrorism organised crime nexus are many.

How organised crime terrorism nexus present challenges to India :-

- The role that terrorism has played in funding criminal activities continues to perpetuate violence and creates instability inside India and in its neighbourhood.
- There are several conditions that make India particularly prone to transnational organised crime and terrorism. **These include, among others, proximity to major heroin producers and exporters, regional drug trade through overland routes and the sea.**
- Moreover, groups willing to take risks, pervasive poverty and the protracted nature of 'low intensity' conflicts have also created a permissible environment for the crime-terror nexus in India.
- The cooperation between the groups stems from the need for terrorists to obtain arms and money to conduct operations and for the crime groups to build a client base and act as couriers to smuggle arms, drugs and humans.
- In some cases, local groups also have linkages with international crime cartels and other transnational groups. Almost all the terrorist groups have their own areas of influence, where they collect money from the common people, act as intermediaries for channeling state funds to the people and work in tandem with government functionaries to award contracts to individuals patronised by militant groups.
- **Regions affected :-**
 - **The major conflict zones in India** are concentrated in Jammu and Kashmir (J&K), North Eastern states of Assam, Nagaland and Manipur.
 - The links between organised crime and terrorism are particularly rampant in India's Northeastern states.
 - Here groups run parallel governments in many parts of these states and raise money through illegal trafficking of drugs, arms and human smuggling and money laundering.
 - Militants and criminals who operate from across India's land borders in the states of Myanmar and Bangladesh, two of India's eastern neighbours, further exacerbate India's crime-terrorism problem in the Northeast.
 - Groups based in these countries have been involved in arms smuggling into India.
 - **Punjab :-**
 - Terrorism in Punjab has also been aided by drug money and smuggling of drugs from Afghanistan through Pakistan.
 - The 2016 Pathankot attacks that were carried out by Pakistan-based terrorists on an Indian Air Force base became controversial after it was revealed in an investigation that local police officials and drug cartels were under scrutiny regarding potential collaboration with terrorists.
 - India also faces a Maoist insurgency in the state of Chhattisgarh and adjoining areas in Telangana and Andhra Pradesh.
 - The main terrorist threat stems from Pakistan-based terrorist groups to J&K and mainland India where violent and religiously motivated groups likewise pose as a threat.
 - Several major Indian cities, including New Delhi, Ahmedabad, Coimbatore, and Pune among others, have witnessed terrorist attacks, but the Indian city of Mumbai has been 'ground zero' to the deadliest attacks over the past three or more decades.
- Extremists belonging to Hindu fundamentalist right-wing groups have also targeted **Muslim and Christian interests across India.**
- **Naxalism:-**
 - Over a period, the 'Naxalites' spread their influence westward into other states of India, which includes Bihar, Chhattisgarh, Madhya Pradesh and southward towards Andhra Pradesh.



- They built links with other terrorist groups including the People's War Group (PWG), the Communist Party of India -Maoist and the communist groups based in neighbouring Nepal.
- Their main funding sources came from extortion, running parallel governments, collecting taxes from people in rural areas and smuggling small arms, home made explosives and landmines.

Q) Discuss the role of Final Action Task Force in combating money laundering and terror financing. (250 words)

[Reference](#)

[Wikipedia](#)

Why this question

Recently in the wake of the Pulwama attack the FATF has criticized Pakistan for its role. In this context it is important to discuss about FATF, its mandate and its role.

Directive word

Discuss- this is an all-encompassing directive which mandates us to write in detail about the key demand of the question. we also have to discuss about the related and important aspects of the question in order to bring out a complete picture of the issue in hand.

Key demand of the question.

The question wants us to write in detail about the role of the FATF in preventing money laundering and terror financing across the world.

Structure of the answer

Introduction– write a few introductory lines about the FATF. E.g The Financial Action Task Force (FATF) was established in July 1989 by a Group of Seven (G-7) Summit in Paris, initially to examine and develop measures to combat money laundering. In October 2001, the FATF expanded its mandate to incorporate efforts to combat terrorist financing, in addition to money laundering.

Body-

Discuss about the objectives of the FATF. E.g

- *The objectives of the FATF are to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system.*

Discuss about the role played by FATF. E.g

- *The FATF has developed a series of Recommendations that are recognised as the international standard for combating of money laundering and the financing of terrorism and proliferation of weapons of mass destruction.*
- *They form the basis for a co-ordinated response to these threats to the integrity of the financial system and help ensure a level playing field.*
- *First issued in 1990, the FATF Recommendations were revised in 1996, 2001, 2003 and most recently in 2012 to ensure that they remain up to date and relevant, and they are intended to be of universal application.*
- *The FATF monitors the progress of its members in implementing necessary measures, reviews money laundering and terrorist financing techniques and counter-measures, and promotes the adoption and implementation of appropriate measures globally.*
- *In collaboration with other international stakeholders, the FATF works to identify national-level vulnerabilities with the aim of protecting the international financial system from misuse etc.*

Conclusion- *based on your discussion, form a fair and a balanced conclusion on the given issue.*



Introduction:

- The Financial Action Task Force (FATF) is an **inter-governmental body** established in **1989** on the initiative of the **G7 countries** to develop policies to **combat money laundering**.
- In 2001, its mandate expanded to **include terrorism financing**. It monitors progress in implementing the FATF Recommendations through “peer reviews” (“mutual evaluations”) of member countries. The FATF Secretariat is housed at the OECD headquarters in Paris.

Body:

Objectives of the FATF:

- To **set standards and promote effective implementation** of legal, regulatory and operational measures for combating money laundering, terrorist financing.
- To tackle other related threats to the **integrity of the international financial system**.
- Act against illegal money.
- Identify cash couriers.
- Financial sanctions against designated terrorists.
- Deprive designated persons of their resources.

Role of the FATF:

- The FATF has developed a series of **Recommendations** that are recognised as **the international standard for combating of money laundering and the financing of terrorism and proliferation of weapons of mass destruction**.
- They form the basis for a co-ordinated response to these threats to the integrity of the financial system and help ensure a level playing field.
- First issued in **1990**, the FATF Recommendations were revised in 1996, 2001, 2003 and most recently in 2012 to ensure that they remain up to date and relevant, and they are intended to be of universal application.
- The 2003 Forty Recommendations require states, among other things, to:
 - Implement relevant international conventions
 - **Criminalise money laundering** and enable authorities to confiscate the proceeds of money laundering
 - Implement **customer due diligence** (e.g., identity verification), **record keeping** and **suspicious transaction reporting requirements for financial institutions and designated non-financial businesses and professions**
 - Establish a **financial intelligence unit** to receive and disseminate suspicious transaction reports, and
 - **Cooperate internationally** in investigating and prosecuting money laundering
- The FATF monitors the progress of its members in implementing necessary measures, reviews money laundering and terrorist financing techniques and counter-measures, and promotes the adoption and implementation of appropriate measures globally.
- In collaboration with other international stakeholders, the FATF works to identify national-level vulnerabilities with the aim of protecting the international financial system from misuse.
- The FATF’s decision making body, the FATF Plenary, meets three times per year.

Challenges faced by FATF:

- First, the task of establishing a world-wide anti-money laundering network. This strategy is designed to expand and strengthen the regional bodies of the FATF.
- The second major challenge confronting the FATF is how best to manage its agenda in order to ensure that its countermeasures remain up-to-date, comprehensive and effective. International co-operation between financial regulators and law enforcement has been identified as cardinal to this goal

FATF and India:

- Recent proposal that Pakistan put back in the greylist could affect Pakistan’s credit rating. This will adversely impact its ability to raise loans from major international financial institutions to service existing debt.
- This will become even more difficult as compared with the previous listing, given the adversarial relationship with the US and the latter’s influence in major financial institutions. Pakistan will not have adequate resources to fund terrorism
- The decisions of the United Nations Financial Action Task Force (FATF) are about using the threat of economic punishment to move Pakistan away from funding terrorists operating against Afghanistan and India
- Being on the grey list would mean that Pakistan’s transactions are closely monitored. This would further cripple the country’s economy as companies across the world would hesitate from doing business with Pakistan.



- The International Monetary Fund and the World Bank too would avoid giving loans to Pakistan.

Conclusion:

- The FATF is therefore a “**policy-making body**” which works to generate the necessary political will to bring about national legislative and regulatory reforms in these areas. As of now there are only two countries in the blacklist — Iran and North Korea — and seven on the grey list, including Pakistan, Sri Lanka, Syria and Yemen.

Topic– Security challenges and their management in border areas; linkages of organized crime with terrorism

Q) Border management is a complex task due to difficult terrain and hostile relations with some countries. Elucidate the challenges and strategies for effective border management. (250 words)

Key demand of the question

The question expects us to discuss the challenges of border management and the strategies India has employed to tackle such challenges.

Structure of the answer

Introduction – highlight that India shares borders with several countries, a few of those countries don't share good relations with India making the task of border management challenging.

Body

Discuss the challenges wrt border security

- *Undemarcated boundaries with overlapping claims cause constant friction along borders.*
- *Unilateral actions by some nations to change the status quo in their favour.*
- *Misuse of borders(especially porous open borders) for smuggling, illegal migration, etc.*
- *Little or no support from counterparts of neighbouring nations and in some cases active support by cross border elements to illegal activities .*
- *Cultural, ethnic and linguistic affinity across borders and clan loyalties*
- *Multiple agencies are involved in border management, lack of Inter agency cooperation and coordination*
- *Support of state and non-state actors to aid infiltration,smuggling, trafficking,etc*

Discuss the measures taken by India to deal with such challenges

- *24x7x365 day surveillance along Indo-Pak border with 5 layer smart fence*
- *Agreement on basic guiding principles and standard operating procedures*
- *Increasing confidence building measures and communication linkages to avoid unnecessary confrontation and escalation*
- *Integrated border management by involving and enhancing cooperation with counterparts of neighbouring countries especially along open borders. Etc*

Conclusion – *Comment on the difficult nature of the task and how India has been faring so far.*

Background:-

- India has one of the longest and most varied of international borders. Historical and political reasons have left India with an artificial unnatural border.
- Border Management is an integral approach towards borders in which along with security enhancement, infrastructure & human development is undertaken.
- The challenge of coping with long-standing territorial and boundary disputes with China and Pakistan, combined with porous borders along some of the most difficult terrain in the world, has made effective and efficient border management a national priority.



India has had to deal with numerous challenges with respect to border management such as:

- India's rate of growth has far outpaced that of most of its neighbours and this has generated peculiar problems like mass migrations into India.
- **Current fence:**
 - The present one has a high rate of degradation due to snow and has to be repaired after every season which costs about Rs. 50-60 crore every year
 - Over time infiltrators have devised ways to cross it
- **India's internal security challenges are inextricably linked with border management.** This is so because Indian insurgent groups have for long been provided shelter across the nation's borders by inimical neighbours.
- **No real coordination:**
 - Due to the lack of understanding of military issues among the decision-making elite, India's borders continue to be manned by a large number of military, para-military and police forces
 - Each of which has its own ethos and each of which reports to a different central ministry at New Delhi, with almost no real coordination in managing the borders.
- **Border management is designed for a 'fire fighting' approach rather than a 'fire prevention' or pro-active approach**
 - It is based on a strategy of 'reaction and retaliation' rather than on a holistic response to the prevailing environment, resulting in stress and decision making problems at the functional level.
- Due to the non-permanent presence of the Myanmarese army in that region, the reason primarily being the hostile terrain, ousting the Indian militants remains a challenge.
 - Similarly, ethnic rebels from Myanmar have found bases within states like Mizoram. Thus, the 1,643 kilometre long Indo-Myanmar border remains a challenge.
- The border security scenario is marked by
 - increased cross-border terrorism
 - infiltration and ex-filtration of armed militants
 - emergence of non-state actors
 - nexus between narcotics traffickers and arms smugglers
 - left-wing extremism
 - separatist movements aided and abetted by external powers
 - the establishment of madrasas, some of which are potential security hazards.
- Perennial and Seasonal Rivers via which terrorists can infiltrate.
- **Undemarcated boundaries with overlapping** claims cause constant friction along borders.
- Mountainous and Hilly terrain especially in North Indian borders which are snow clad and inhabitable during winter season.
- Unilateral actions by some nations to change the status quo in their favour.
- **Little or no support from counterparts of neighbouring nations** and in some cases active support by cross border elements to illegal activities .
- **Cultural, ethnic and linguistic affinity across borders** and clan loyalties
- Multiple agencies are involved in border management, **lack of Inter agency cooperation and coordination**
- Support of **state and non-state actors** to aid infiltration, smuggling, trafficking etc.

Strategies for effective border management have been continuously evolving. Some of them are:-

- 24x7x365 day **surveillance** along Indo-Pak border with 5 layer smart fence
- **Agreement on basic guiding principles and standard operating procedures**
- Increasing **confidence building measures and communication linkages** to avoid unnecessary confrontation and escalation
- **Integrated border management by involving and enhancing cooperation with counterparts of neighbouring countries** especially along open borders.
- Effective implementation of the **recommendations of One Border One Force by the Task Force on Border Management** to weed out inter agency frictions.
- **Increase the role of state holders.** Community measures and awareness can be deployed along open borders to prevent illegal activities.
- **Implementation of Border Area Development Programme** and other developmental initiatives so that there is no feeling of being left out.



What needs to be done:-

- **Infrastructure** along with border has to be improved – rail connectivity along with road connectivity has to be provided for quick mobilization.
- **Building of additional checkpoints** and Border posts along major and minor trade routes connected with borders
- **Building of floating bridges**, walls & electrical fences where there is high probability of infiltration.
- Taking up of **joint Border management** with Countries like Myanmar, Bhutan and Nepal.
- Improving healthcare, physical infrastructure and digital connectivity in villages around borders thus making them stakeholder in Border Management.
- **Madhav Godbole task force recommendations on border management need to be implemented.**
 - It had recommended that the CRPF should be designated as the primary national level counter-insurgency force. This would enable the other central para-military forces like the BSF and Indo-Tibetan Border Police to return to their primary role of better border management.
 - It had also recommended that all para-military forces managing unsettled borders should operate directly under the control of the army and that there should be lateral induction from the army to the para-military forces so as to enhance their operational effectiveness.
- The **principle of 'single point control'** must be followed if the borders are to be effectively managed.
- The advances in surveillance technology, particularly satellite and aerial imagery, can help to maintain a constant vigil along the LAC and make it possible to reduce physical deployment.

Q) Discuss the major drug trafficking patterns and trends in India. (250 words)

Reference

Why this question

India is placed in a precarious geographical position which makes it susceptible to drug trafficking. The problem of drug abuse has shown its ugly head in Punjab's society, economy and polity. In this context it is important to analyze the drug trafficking process in India.

Directive word

Discuss- this is an all-encompassing directive which mandates us to write in detail about the key demand of the question. we also have to discuss about the related and important aspects of the question in order to bring out a complete picture of the issue in hand.

Key demand of the question.

The question wants us to write in detail as to what are the patterns of drug trafficking in India and what are the recent trends in drug trafficking.

Structure of the answer

Introduction– write a few introductory lines about India's precarious geographical position. E.g mention about the Golden Crescent and Golden Triangle.

Body-

Discuss the broader patterns and trends of drug trafficking activities in India. E.g

- *Trafficking of Heroin from South West Asia to India and then from India to Sri Lanka, Maldives and other western countries.*
- *Trafficking of hashish and cannabis from Nepal to India.*
- *Suspected diversion of opium from licit cultivations and indigenous production of low quality Heroin.*
- *Illicit cultivation of opium poppy. • Wild growth of cannabis.*
- *Diversion of precursor chemicals and other controlled substances.*
- *Diversion of pharmaceutical preparations and prescription drugs containing psychotropic and controlled substances and their smuggling to neighbouring countries etc.*



- Try to make a map showing the trends and patterns as shown in the document (link to the article).

Conclusion– based on your discussion, form a fair and a balanced conclusion on the given issue.

Background:-

- The drug trafficking scenario in India is largely attributed to various external and internal factors.
- One of the prime **external factors** happens to be India's close proximity to the major opium producing regions of South West and South East Asia known as the 'Golden Crescent' and the 'Golden Triangle', respectively.
- The geographical location of India as such, makes it vulnerable to transit, trafficking and consumption of Opium derivatives in various forms along the known trafficking routes.
- The major **internal factors** responsible are illicit cultivation of Poppy and the diversion from the licit Opium sources into illicit production in interior areas.

Major trends and patterns that have dominated the drug trafficking scenario in India can be broadly summarized as follows:

- Trafficking of Heroin from South West Asia to India and then from India to Sri Lanka, Maldives and other western countries.
- Trafficking of hashish and cannabis from Nepal to India.
- Suspected diversion of opium from licit cultivations and indigenous production of low quality Heroin.
- Illicit cultivation of opium poppy.
- Wild growth of cannabis.
- Diversion of precursor chemicals and other controlled substances.
- Diversion of pharmaceutical preparations and prescription drugs containing psychotropic and controlled substances and their smuggling to neighbouring countries.
- Trafficking of drugs through illicit internet pharmacies and misuse of courier services.
- Involvement of foreign nationals in trafficking and distribution networks.
- Trafficking of Ketamine, an anaesthetic, from India to certain destinations in South East Asia.
- Emergence of new psychoactive substances like Mephedrone in the country.

Q) The Comprehensive Integrated Border Management System (CIBMS) is touted as a more robust and integrated system that is capable of addressing the gaps in the present system of border security. Discuss. (250 words)

Reference

Why this question

India shares a long border with several countries and the difficult nature of the terrain and open border at many poses special challenges for India. In this context it is important to discuss the need and scope of CIBMS.

Directive word

Discuss- this is an all-encompassing directive which mandates us to write in detail about the key demand of the question. we also have to discuss about the related and important aspects of the question in order to bring out a complete picture of the issue in hand.

Key demand of the question.

The question wants us to write in detail about the CIBMS and how it will address the gaps in the present system of border security.

Structure of the answer

Introduction– write a few introductory lines about the Indian border. E.g mention the varied and difficult terrain, hostile neighbours and porous border at many places.

Body-

Discuss about the CIBMS and how it will help in better border management and control. E.g



- *The use of high-tech solutions for border security was being considered by the Ministry of Home Affairs (MHA) since 2012 when it released an Expression of Interest (Eoi) for a Comprehensive Integrated Border Management System (CIBMS).*
- *The CIBMS is touted as a more robust and integrated system that is capable of addressing the gaps in the present system of border security by seamlessly integrating human resources, weapons, and high-tech surveillance equipment.*

It has three main components:

1. *new high-tech surveillance devices such as sensors, detectors, cameras, ground-based radar systems, micro-aerostats, lasers as well as existing equipment for round-the-clock surveillance of the international border;*
2. *an efficient and dedicated communication network including fibre optic cables and satellite communication for transmitting data gathered by these diverse high-tech surveillance and detection devices; and*
3. *a command and control centre to which the data will be transmitted in order to apprise the senior commanders about the happenings on the ground and thus providing a composite picture of the international border.*

A composite picture would help senior commanders analyse and classify the threat and mobilise resources accordingly to assist the field commander in his response.

The purpose of the CIBMS is to eventually replace manual surveillance/patrolling of the international borders by electronic surveillance and organising the BSF personnel into quick reaction teams to enhance their detection and interception capabilities.

Other factors such as power back up, training of the BSF personnel in handling the sophisticated equipment, and maintenance of the equipment are incorporated into the CIBMS.

Conclusion– *based on your discussion, form a fair and a balanced conclusion on the given issue.*

Background:-

- Repeated acts of terror from across the border led to rigorous introspection in the Government for developing measures to avoid such tragedies.
- The use of high-tech solutions for border security was being considered by India since 2012 and the trigger for implementing the CIBMS was the Pathankot terrorist attack.

CIBMS:-

- The CIBMS is touted as a more robust and integrated system that is capable of addressing the gaps in the present system of border security by seamlessly integrating human resources, weapons, and high-tech surveillance equipment.
- It has three main components:
 - New high-tech surveillance devices such as sensors, detectors, cameras, ground-based radar systems, micro-aerostats, lasers as well as existing equipment for round-the-clock surveillance of the international border;
 - An efficient and dedicated communication network including fibre optic cables and satellite communication for transmitting data gathered by these diverse high-tech surveillance and detection devices; and
 - A command and control centre to which the data will be transmitted in order to apprise the senior commanders about the happenings on the ground and thus providing a composite picture of the international border.
- A composite picture would help senior commanders analyse and classify the threat and mobilise resources accordingly to assist the field commander in his response.
- The purpose of the CIBMS is to eventually replace manual surveillance/patrolling of the international borders by electronic surveillance and organising the BSF personnel into quick reaction teams to enhance their detection and interception capabilities.
- Other factors such as power back up, training of the BSF personnel in handling the sophisticated equipment, and maintenance of the equipment are incorporated into the CIBMS.



- At present, the CIBMS is being implemented along two stretches in the Jammu sector of the India-Pakistan border.

Advantages:-

- Cost effectiveness and suitability :-**
- Technical solutions are necessary to augment and complement the traditional methods of border guarding.**
- They not only enhance the surveillance and detection capabilities of the border guarding forces but also **improve the impact of the border guarding personnel against infiltration and trans-border crimes.**
- Smart borders will not only strengthen security infrastructure but also can go a long way in **reducing the loss of valuable lives of our soldiers.**
- Besides, **the idea has a potential to boost innovation in Indian companies** and research institutes, which could develop cost-effective technologies.

Limitations of technological solutions like CIBMS:-

- The experiences of countries such as the United States that have employed high-tech devices demonstrate that not only are the costs of such devices prohibitive but that they also fail to provide a comprehensive solution to border security problems.
 - Even US is weighed down by the economic burden caused by implementation of the 'virtual fence' on the US-Mexico border.
 - Infusion of large funds for acquiring the CIBMS** at a time when economy is struggling with slow growth, is also going to be a challenge before the government.
 - The exorbitant cost of the electronic devices and the lack of easy availability of spare parts act as a deterrent against their use.
- The army is also using some imported, sophisticated technical equipments, but its optimum use is hampered by its **incompatibility with terrain and border security infrastructure.**
 - Erratic power supply and adverse climatic and terrain conditions in the border areas could potentially undermine the functioning of the sophisticated system.
- The effectiveness of the equipments is further **curtailed by the lack of training, repair and maintenance facility and smart users.**
 - BSF does not have the required technical expertise to offer clear guidelines to the vendors so that they can provide suitable products.** This fact is further evidenced by media reports that the two attempts at testing the CIBMS system were stalled due to technical mismatch and budgetary projections.
 - Operation and maintenance of the existing sophisticated equipment remain a problem.** At present, many of the high-tech surveillance devices deployed by the BSF are **not optimally utilised because the required technical expertise is not uniformly available among the force's personnel.**
 - Being manpower intensive, the system was not effective in providing rest and relief to BSF troops
- Centralised decision making could hamper timely and effective response on the ground** given that detection and interception of infiltrators at the border require a quick response which is achieved only through a decentralised decision making process.

Way forward:-

- A strong initiative to utilize this existing infrastructure to their optimum capacity can go a long way in improving border security without additional cost.
- There is a need for setting up a border security operation cum intelligence centers,** for better cooperation and coordination among various agencies involved in border security. Operations should be intelligence driven.

Conclusion:-

- Instead of high-cost and innovative technological solutions that require extensive technical expertise, a judicious mix of properly trained manpower and affordable and tested technology is likely to yield better results.

Q) India urgently needs a national security doctrine and another knee jerk reaction will not suffice. Critically comment. (250 words)

[Indianexpress](https://www.indianexpress.com)

[Reference](#)



Why this question

The Pulwama strike has raised several questions over the internal security situation in the country particularly with respect to Kashmir. The issue highlights the need for a national security doctrine as discussed in the article.

Key demand of the question

The question expects us to discuss the recent incident which has brought intense focus on the Kashmir issue. Here based on reasoned arguments and from different perspectives we need to discuss what should be our next step, with a special emphasis on whether and what revisions does India require in its doctrine. We need to conclude with our own take on the issue and justify our stand.

Directive word

Critically comment – When you are asked to comment, you have to pick main points and give your ‘opinion’ on them based on evidences or arguments stemming from your wide reading. Your opinion may be for or against, but you must back your argument with evidences. When ‘critically’ is suffixed or prefixed to a directive, all you need to do is look at the good and bad of something and give a fair judgement.

Structure of the answer

Introduction – Discuss why this issue is in news and set the foundation for the discussion that follows.

Body

Highlight why this attack has shaken the nation and posed new challenges for national security

- deadliest ever terror strike against security forces in three decades of militancy in Kashmir.
- Jaish has carried out other attacks in Kashmir in recent years, including the one at Uri and at Pathankot, highlights terrorism emanating from Pakistan
- Issues of strategic significance such as relationship with China, developments in Afghanistan
- One of the first instances of a vehicle-borne IED being used in J&K, the success of this tactic could mark a new phase in the ongoing counter-insurgency operations.

Comment on how should India react. Highlight the pros and cons of your suggestion. Also discuss what is India’s national security doctrine and what inclusions /exclusions should be made in that.

Conclusion – Give your view and justify it on the basis of the arguments made above.

Introduction:

- The Pulwama terrorist attack is one of the worst in recent years. The death toll is still climbing, but recent reports indicated over 40 people had been killed. In the 2016 attack on an Indian Army base in Uri, 16 personnel had died.
- The 2001 attack on the Jammu and Kashmir state assembly in Srinagar had killed 38 people. For the CRPF in particular, this is the second worst attack in its history. The last time it suffered such casualties was in Dantewada when Maoists insurgents ambushed and killed 75 CRPF personnel in April 2010.

Body:

The Pulwama attack has shaken the nation and posed **new challenges for national security**

- One of the first instances of a **vehicle-borne IED** being used in J&K, the success of this tactic could mark a new phase in the ongoing counter-insurgency operations
- The **detailed planning undertaken** for this deadly ambush of the police convoy — this is certainly not the work of high school drop-outs or amateurs.
- **Jaish-e-Mohammed (JeM)** has carried out other attacks in Kashmir in recent years, including the one at Uri and at Pathankot, highlights terrorism emanating from Pakistan.
- Lapses in the **quality and timeliness of intelligence inputs and the standard operating procedures (SOP)** being followed by the armed police force convoys is highlighted.
- Pakistan’s **three-decade-long strategy of “bleeding India by a thousand cuts”**, using terrorists and religious fanatics has kept the **Kashmir Issue simmering**.



- Crisis after crisis has caught our nation by surprise — unprepared and invariably in the reactive mode.
- India remains **deficient in intelligence-analysis, inter-agency coordination**, and, above all, a national security doctrine.
- To protect critical infrastructure like Nuclear Installations, Army/Navy/Air force bases % strategic research institutes like DRDO, ISRO

National security is a concept that a government, along with its parliaments, should protect the state and its citizens against all kind of “national” crises through a variety of power projections, such as political power, diplomacy, economic power, military might.

- **A national security doctrine helps the statesmen identify and prioritize that country’s geopolitical interests.** It encompasses **the totality of this country’s military, diplomatic, economic and social policies that will protect and promote this country’s national security interests.**
- India does not have any such doctrine, except the Army.

Need for India to have to have a National Security Doctrine is:

- **Porous international boundaries, growing terror threats, increasing insurgency within country** demand government to envisage and formulate a National Security Doctrine for India.
- The existence of such a document will **dissuade adventurism and will reassure our citizens** that appropriate measures are in place to protect us.
- Many of India’s national security inadequacies stem from the absence of a national security/defence vision.
- It will not only become the basis for **strategy-formulation, contingency-planning and evolution of SOPs**, but also send a reassuring message to our public.
- It is necessary in the face of having nuclear-armed neighbours, Pakistan and China.
- The country should have an **overall national security document** from which the various agencies and the arms of the armed forces draw their mandate and create their own respective and joint doctrines which would then translate into operational doctrines for tactical engagement
- In the absence of this, as is the case in India today, national strategy is broadly a **function of ad-hocism and personal preferences.**
- **To fill the gaps in India’s security policy planning.**
- **To define India’s role in the world and its commitment to protecting the life, liberty and interests of its people.**

Challenges in implementing a National Security Doctrine:

- There is a **skewed national security decision-making structure** that is driven more by idealism and altruism, rather than by realpolitik imperatives.
- National security has suffered neglect for decades due to pre-occupation of our politicians with electoral politics.
- **Defining national interests** in a multi-party democracy like India that has representation across the ideological spectrum has been hard to achieve.
- Decisions of national security are taken in **individual silos** rather than cross-domain exchange as subjects are inter-related.
- There is **opacity in the functioning of Intelligence agencies** for instance there is no credible external audit that happens.
- The agencies that are to provide security cover and neutralise terrorist threats do not have a cohesive command and control structure.
- There has been a gap in political pronouncements in our military capabilities — material as well as organisational.

Way forward:

- 5 key areas in draft National Security Policy that Shyam Saran, former chairman of the National Security Advisory Board (NSAB), has prepared and handed over to the government in January 2015: **Domestic security, External security, Military preparedness, Economic security, Ecological security.**
- **“Strategic communication”** is of overarching importance in National Security which must be improved. A **command control and communication centre** must be built.
- The NSD should **guide various doctrines related to external and internal security** to fill a huge void in the higher defence management of the country.
- The policy must go **much beyond issues of national security** and encapsulate the domain of constitutional rights as well.



- It must take an **all-inclusive approach** to national security **integrating diplomatic engagement, domestic economic discipline and amity among communities at home with military power.**
- We need to tailor our strategic defence doctrine to create long-term measures towards a deterrent based on severe retribution.
- Our targeting philosophy must be involved and redirected to two notices, but yet the message must be loud and clear that this has been done, and that in fact our targeting policy exists.
- Emerging strategic technologies like Artificial Intelligence, robotics and miniaturised wars are likely to play an increasingly important role in future warfare, this must be taken care of.

Conclusion:

- Developing a National Security Doctrine is as much about the future vision of a country as it is about its past. The need of the hour is to put together a **National Security Doctrine** that should have political consensus, publicly transparent and should reflect the complex challenges facing the country. The doctrine must be accompanied by a **national security strategy.**

Q) Critically analyze the challenges involved in moving security forces in the volatile regions of J&K. (250 words)

[Indianexpress](https://www.indianexpress.com)

Why this question

The recent attack on security forces in Kashmir highlights the threats and challenges in moving forces across the valley. In this context it is important to discuss those challenges and what could be done in dealing with those challenges.

Directive word

Critically analyze- here we have to examine methodically the structure or nature of the topic by separating it into component parts, and present them as a whole in a summary. based on our discussion we have to form a concluding opinion on the issue.

Key demand of the question.

The question wants us to analyze the challenges involved in the movement of security forces across the J&K region and bring out as to what can be done in this regard.

Structure of the answer

Introduction– write a few introductory lines about the recent Pulwama attack. E.g mention the nature of attack and manner of execution.

Body-

Discuss in points the challenges involved in moving security forces across the region. E.g

- *The national highway NH-44 passes through several volatile districts of Kashmir region.*
- *At most places, the highway is surrounded by villages and residential colonies. Subsidiary roads connect to these villages.*
- *Every day, at least four security convoys move on the highway, two from Jammu to Kashmir and two the other way. Movement of convoys increases during summer.*
- *If movement of civilian traffic were to be halted during convoy movement, it would mean closing each stretch, southern and northern, for at least five hours.*
- *Also, it would also be very difficult to stop vehicles coming out of different residential areas along the highway.*

Discuss what could be the possible solution to those challenges. E.g

- *Briefly discuss option of Airlifting the personnel*
- *Another alternative route is the railway etc.*

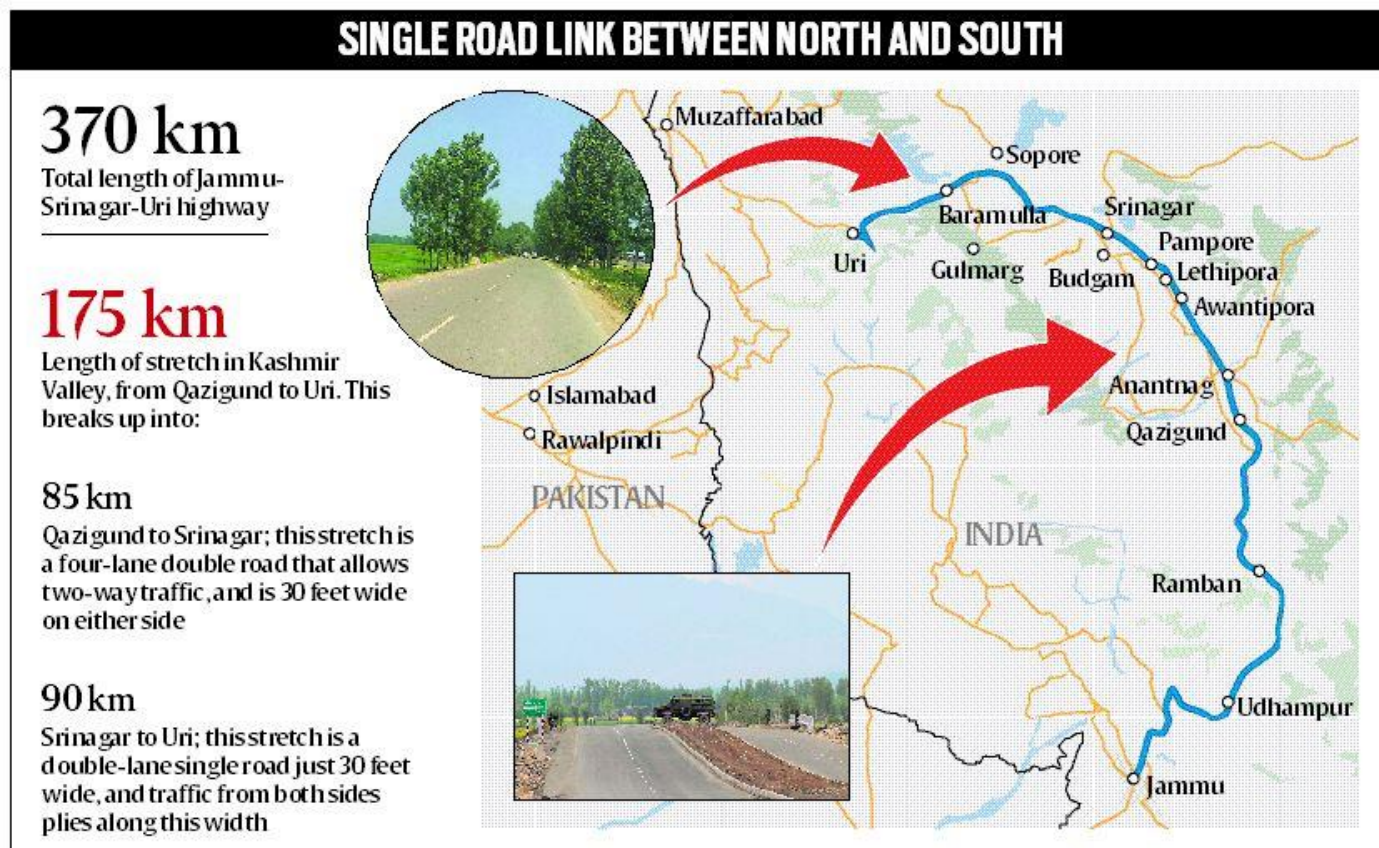
Conclusion– based on your discussion, form a fair and a balanced conclusion on the given issue.



Introduction:

- A suicide car bomber rammed his explosives-laden car into a paramilitary bus in Pulwama of Jammu & Kashmir, killing 40 CRPF personnel who were being moved from Jammu to Kashmir. Union Home Minister said that civilian traffic would be restricted during the movement of convoys of security forces.

Body:



The challenges involved in moving security forces across the region.

- The Jammu-Srinagar-Uri national highway (NH-44) runs 370 km and is the only road link between Jammu and Kashmir.
- At most places, the highway is surrounded by villages and residential colonies. Subsidiary roads connect to these villages.
- Every day, at least four security convoys move on the highway, two from Jammu to Kashmir and two the other way.
- Movement of convoys increases during summer, when the road to Ladakh and border areas of the Valley like Gurez and Tangdhar is thrown open.
- The convoys move only by day because of security concerns around night movement.
- If movement of civilian traffic were to be halted during convoy movement, it would mean closing each stretch, southern and northern, for at least five hours.
- According to official figures, over 9,500 vehicles including around 5,000 LMVs move on both sides on the highway every hour.
- If the traffic is stopped at Baramulla or Narbal for only one hour, it means that **over 5,000 vehicles would pile up from each side**. It would take **several hours to clear the traffic jam**.
- It would also be very difficult to stop vehicles coming out of different residential areas along the highway.
- Apart from convoys, the security vehicles move on both stretches throughout the day.

Other challenges include:

- Weather:** The weather changes are erratic in J&K. The blockage of roads for 6 months due to snowfall also adds to pressure of movement of troops before or after snow.
- Terrain:** The undulating terrain causes difficulty in preparing alternative roads, train routes or even building air-strips itself.
- Protest and stone pelting:** Instances of protests during convoy movement pose risks such as suicide bombing, IEDs, mine-traps etc.
- Intelligence:** Intelligence failures, increasing fake news have added to the challenges.



- **Lack of co-operation from locals:** Increasing anger and mistrust between the forces and locals have added to the woes.

The possible solutions to the challenges are:

- **Airlifting the personnel:**
 - It would save travel time — from 10 hours to 30 minutes — but would be very costly.
 - The security personnel would still be needed to be sent in convoys from Srinagar to South Kashmir or North Kashmir.
- **Railways:**
 - Currently the service is an eight-coach train that connects Banihal in Jammu to Baramulla in Kashmir.
 - A train route would not only reduce travel time from over five hours to two-and-a-half hours, but also be safer according to experts.
 - The challenge is that security forces would have to maintain very tight vigil against any possible sabotage attempts, which could result in higher costs.
 - According to officials, 22 companies of CRPF and about as many Army personnel guard the Jammu-Srinagar-Baramulla highway during the day.

Conclusion:

- Considering the variety of challenges posed for movement of troops, it is currently necessary to employ all three modes – **roadways, Railways and Airlifting**. However, this should be backed by a **fool-proof intelligence network and sanitizing the routes before movement**.
- Effective use of **technology** like **drones, interceptors, cameras and its inputs, traffic density and blast- proof vehicles** should be incorporated. In a longer run, **Railways would be a sustainable option** backed by Airlifting for emergency movement of troops.

Q) Balakot operations have established air strikes as an effective tool of deterrence in dealing with Pakistan. Discuss. (250 words)

[Indianexpress](https://www.indianexpress.com)

Why this question

The article discusses the recent precision airstrikes in Balakot and analyzes why this changed strategy of using airpower is a valid strategy in dealing with Pakistan. The article examines the reasons why India hesitated from using such an option in the past and discusses the opportunities provided by such strikes.

Key demand of the question

The question expects us to bring out the fact that air strikes in counter-terrorist operations are the preferred first option across the Western world. The question expects us to discuss why India hesitated from using such an option in the past and the impact of using airstrikes as a means of deterrence. Finally, we need to provide a fair and balanced conclusion and discuss the way forward.

Directive word

Discuss -This is an all-encompassing directive – you have to debate on paper by going through the details of the issues concerned by examining each one of them. You have to give reasons for both for and against arguments.

Structure of the answer

Introduction – Explain about the recent Balakot air strike in response to Pulwama strike.

Body

Highlight the significance of the strike – a calibrated, decisive and yet restrained show of force, the Indian Air Force (IAF) converted Prime Minister Narendra Modi's promise of punitive action into reality as it pounded jihadi training camps in Pakistan-Occupied Kashmir (PoK) in a series of coordinated air strikes

Discuss why such an option was not explored by India in the past – responsibility, restraint and escalation



Discuss what makes these airstrikes an effective strategic option –

- *while many of these reasons — responsibility, restraint and escalation — may hold true while conducting sub-conventional operations in the hinterland, different paradigms have existed in Jammu and Kashmir ever since Pakistan raised the tempo of its covert war by employing proxies like the Lashkar-e-Taiba (LeT) and Jaish-e-Mohammad (JeM).*

Discuss the impact of this strategy critically highlighting both the pluses and the minuses

Conclusion – *Give a fair and balanced view and discuss way forward.*

Introduction:

- A **calibrated, decisive and yet restrained show** of force by the Indian Air Force (IAF) converted the promise of punitive action into reality as it **pounded jihadi training camps in Pakistan-Occupied Kashmir (PoK)** in a series of coordinated air strikes in the wee hours. The airstrikes were pre-emptive against the terror training camps and hideouts which claimed responsibility for the deadly Pulwama attack.

Body:

Airstrikes were not used in the past due to:

- **Responsibility:** India has always been a responsible power especially with respect to weapons, war.
- **Restraint:** Peace and co-operation has been an important guiding principle of our foreign policy. We have even adopted a second-strike capability wrt to nuclear power.
- **Escalation:** Escalation of skirmishes unnecessarily leads to war which can take a turn anyway. It can lead to huge costs in terms of manpower, money, material etc.
- Successive governments' lack of understanding of what air power could and could not do.
- During the Kargil conflict, the IAF wanted to hit the logistics lines opposite the Kargil area that would choke supplies but was held back with restrictions to not cross the LoC.
- Similarly, in 2002, the IAF conducted some strikes, albeit without crossing the LoC, during the closing stages of Operation Parakram when Pakistan made some effective incursions in the Neelam-Gurez sector

Seen in isolation from a contemporary conflict scenario, **air strikes in counter-terrorist operations are the preferred first option** across the Western world for a few reasons.

- First, they are **safer than committing boots on the ground**.
- Second, the seductive technological capability of precision allows for **pinpoint targeting** and the possibility of carrying out **effective decapitation missions against terrorist cadres**.
- And lastly, air strikes are **no longer seen as escalatory mechanisms in a sub-conventional conflict**.

The Balakot airstrikes were a paradigm shift:

- There seems to be an emerging understanding within the strategic community and the political establishment that offensive air power can be employed as a credible tool of punitive or proactive deterrence, a policy that has been attributed to the more muscular national security posture of the present NDA government.
- The fact that the air attack plan is said to have been explained in detail by the air chief to the defence minister, and that Prime Minister monitored the attack in real time, reflects that there was good synergy between all stakeholders in the operation.
- The IAF must be commended for not engaging in mission over-reach, considering that it does not regularly conduct such operations.
- The surprise element and the timing may have caught the best air forces by surprise. It was a mission well-executed. It is assessed that significant damage was caused to the target systems chosen.

Conclusion:

- India cannot afford to let its guard down. War as we know it is not an option but full-spectrum and hardened deterrence is an absolute necessity. The airstrikes enhances the understanding of the **utility of air power as a kinetic tool of statecraft** that can be **employed with restraint**.

Topic – Various Security forces and agencies and their mandate

Q) Discuss the role of the Central Reserve Police Force in protecting India's security. (250 words)

Reference

Directive word



Discuss- this is an all-encompassing directive which mandates us to write in detail about the key demand of the question. we also have to discuss about the related and important aspects of the question in order to bring out a complete picture of the issue in hand.

Key demand of the question.

The question wants us to write in detail about the role and responsibilities of the Central reserve police Force in protecting India's security.

Structure of the answer

Introduction– write a few introductory lines about the CRPF. e.g The Central Reserve Police Force came into existence as Crown Representative's Police on 27th July 1939. It became the Central Reserve Police Force on enactment of the CRPF Act on 28th December 1949.

Body-

Discuss in points the role and responsibilities of the CRPF. E.g

- Crowd control
- Riot control
- Counter Militancy / Insurgency operations.
- Dealing with Left Wing Extremism
- Overall coordination of large scale security arrangement especially with regard to elections in disturbed areas.
- Protection of VIPs and vital installations.
- Checking environmental degradation and protection of local Flora and Fauna
- Fighting aggression during War time
- Participating in UN Peacekeeping Mission
- Rescue and Relief operations at the time of Natural Calamities etc.

Conclusion– based on your discussion, form a fair and a balanced conclusion on the given issue.

Background:–

- CRPF is the largest central armed police force or paramilitary force in India.
- The CRPF was set up in 1939
- Its main job is to assist the State Police or Union Territory Police in maintaining law and order.
- The Mahila Battalion (88th Battalion of CRPF) commissioned on March 30, 1986, is the world's first paramilitary force comprised entirely of women.
- It is All India in character, both in deployment and in its composition. Due to its unique capability to quickly adapt to various situational requirements, and also, to work in perfect harmony with the State Police, CRPF has, over the years, acquired the distinction of being perhaps the most acceptable Force, by the people and the State administrations.

Role of CRPF:-

- The CRPF looks after the internal security in every part of the country.
- They are also tasked to watch over Naxal operations, assisting the states and union territories in police operations to maintain law and order and helping with the UN peace-keeping missions.
- Crowd control
- Riot control
- Counter Militancy / Insurgency operations.
- Dealing with Left Wing Extremism
- Overall co-ordination of large scale security arrangement specially with regard to elections in disturbed areas.
- Protection of VIPs and vital installations.
- Checking environmental de-gradation and protection of local Flora and Fauna
- Fighting aggression during War time



- Participating in UN Peace Keeping Mission
- Rescue and Relief operations at the time of Natural Calamities.
- Besides Law and Order and counter insurgency duties, the role of CRPF in the General Elections, held repeatedly during the past few years, has been very significant and vital. This is especially true for the trouble torn States of J&K, Bihar and States of NorthEast. During the Parliamentary elections & State Assembly Election, the CRPF played a major role in the security arrangements.
- One of the vital roles of the CRPF, which is not very evident, is guarding vital Central Govt. installations such as Airport, Powerhouses, Bridges, Doordarshan Kendras, All India Radio Stations, residence of Governors and Chief Ministers, Nationalised Banks and other Government establishments in insurgency affected States.
- **Role of CRPF In Kashmir:-**
 - CRPF is the biggest paramilitary force present in the Kashmir Valley.
 - Their basic role is maintenance of law and order, conducting operations based on intelligence, and providing law and order support to Army operations.
 - After an operation has been concluded, it is the job of the CRPF to manage angry, stone-pelting crowds. More than 60,000 CRPF personnel are deployed across the state.

Q) Discuss the wartime and peacetime role of Border Security Forces of India. (250 words)

Reference

Directive word

Discuss- this is an all-encompassing directive which mandates us to write in detail about the key demand of the question. we also have to discuss about the related and important aspects of the question in order to bring out a complete picture of the issue in hand.

Key demand of the question.

The question wants us to write in detail about the role of BAF in protecting India's sovereignty and integrity in terms of its role during wartime and peacetime.

Structure of the answer

Introduction– write a few introductory lines about the BSF. E.g Till 1965 India's borders with Pakistan were manned by the State Armed Police Battalion. A series of attacks from Pakistan exposed the inadequacy of the State Armed Police to cope with armed aggression. As a result of the recommendations of the Committee of Secretaries, the Border Security Force came into existence on 01 Dec 1965.

Body-

Discuss the wartime roles of the BSF. E.g

- *Holding ground in less threatened sectors so long as the main attack does not develop in a particular sector and it is felt that the local situation is within the capability of BSF to deal with.*
- *Protection of vital installations particular air-fields against enemy commandos/para troopers or raids.*
- *Providing extension to the flanks of main defence line by the holding of strong points in conjunction with other units.*
- *Limited Aggressive action against para military or irregular forces of the enemy within the overall plan of the Armed Forces .*
- *Performing special tasks connected with intelligence including raids.*
- *Guarding of prisoners of war cages*
- *Assistance in control of refugees etc.*
- *Discuss the peacetime role of the BSF. E.g*



- *Promote a sense of security among the people living in the border areas.*
- *Prevent trans border crimes, unauthorized entry into or exit from the territory of India.*
- *Prevent smuggling and any other illegal activity.*

Conclusion— based on your discussion, form a fair and a balanced conclusion on the given issue.

Background:-

- Considering the vastness of India and its border, different border guarding forces are deployed.
- BSF is responsible for guarding India-Pakistan and India-Bangladesh borders.
- BSF is a paramilitary force under home ministry responsible for guarding India's land border during peace time and preventing transnational crime.
- BSF currently stands as the world's largest border guarding force with 186 battalions and 2.57 lakh personnel including an expanding air wing, marine wing, artillery regiments, and commando units.

Role:-

- **Peace time:**
 - Promote a sense of security among the people living in the border areas.
 - Prevent trans border crimes, unauthorized entry into or exit from the territory of India
 - Prevent smuggling and any other illegal activity.
 - In 2017 Border Security Force (BSF) personnel detected a cross-border tunnel in the forest area of Damala nullah in Jammu's Arnia sub-sector.
 - BSF personnel have been performing Internal Security Duty in Manipur for the last two years and have been successfully fighting insurgency in those areas.
 - During the earthquake in Gujarat in 2001, the BSF was the first to reach out to help the distressed people and during the communal disturbances BSF personnel went all out to restore amity and brotherhood among the people.
 - The BSF took over the erection of the border fencing in Jammu & Kashmir
 - The BSF has been defending the borders along with the army and checking infiltration on the borders during the current standoff with Pakistan.
- **War Time:**
 - **Holding ground in less threatened sectors so long as the main attack does not develop in a particular sector**
 - The BSF units can continue to remain deployed in particular sector even in a war situation to release the Army for offensive tasks. In the even of a major attack developing, which is not within the capacity of the BSF to deal with, the Army can be expected either to reinforce the BSF with Artillery or other support, or relieve the BSF from its role in the particular sector.
 - **Protection of vital installations** particular air-fields against enemy commandoes/para troopers or raids.
 - **Providing extension to the flanks of main defence line** by the holding of strong points in conjunction with other units.
 - **Limited Aggressive action against para military or irregular forces of the enemy within the overall plan of the Armed Forces .**
 - **Performing special tasks connected with intelligence including raids.** These are tasks which might be entrusted to BSF Units by the Army in a war situation according to local necessity. It would, however, be expected that the state of training and equipment of the particular BSF Units would be kept in view in assessing their adequacy for the tasks.
 - **Acting as guides in an area of responsibility where routes are known.** This is a task which the BSF should be able to perform.
 - **Maintenance of law and order in enemy territory administrated under the control of Army.** Normally, ordinary civil police force would be utilised for this task but the BSF could be used to supplement the civil police or to act in lieu thereof in a situation where civil police is not readily available.
 - **Provision of escorts.**
 - **Guarding of prisoners of war cages**
 - **Assistance in control of refugees.** It is the intention to utilise civil police force and armed Home Guards etc. for these tasks but again depending upon local exigencies, the BSF might be entrusted with these tasks.



- **Anti – infiltration duties in specified area.** This is an important responsibility which will have to be performed by security forces. The exact responsibility of the BSF in this matter is still under consideration and separate instructions are expected to be issued.
- During the Kargil conflict in 1999, the BSF remained on the heights of the mountains and defended the integrity of the country with all the might at its command in unison with the Army

Q) Discuss the issues being faced by IAF with respect to maintaining numerical adequacy ? (250 words)

[Reference](#)

[Reference](#)

Why this question

The question expects us to discuss the problem of numbers being faced by Indian Air force and how they are trying to resolve the issue. The focus of the article is on explaining how the IAF is bolstering its numbers and examining the issues that it is facing.

Key demand of the question

The question expects us to bring out the issues that the IAF is facing with respect to its numbers and how it is trying to resolve the issue. We need to discuss these issues, point out CAG's observations and discuss the way forward.

Directive word

Discuss – This is an all-encompassing directive – you have to debate on paper by going through the details of the issues concerned by examining each one of them. You have to give reasons for both for and against arguments.

Structure of the answer

Introduction – Explain about the recent Rafale controversy and how the IAF is lagging behind in maintaining its fleet.

Body

Discuss the issues faced by IAF with respect to acquisition of new aircrafts to maintain its fleet strength. The Indian Air Force's problems with numbers is no secret, It has been plagued by poor decision-making, poor acquisition strategy and shoddy quality control and contract delivery.

- *Highlight how IAF plans to acquire a squadron plus (21 aircraft) of MiG-29s that were lying unassembled and moth-balled in a Russian facility and thereafter discuss the CAG report with respect to capital acquisition by IAF and the issues inherent in the process.*

Discuss what needs to be done for the IAF to be prepared against any eventuality

Conclusion – Give a fair and balanced view and discuss the way forward.

Introduction:

- Indian Airforce chief recently said that India has 31 squadrons (each squadron has 21 aircrafts) against sanctioned strength of 42.
- By providing the Rafale and S-400 aircraft, the government is strengthening the Indian Air Force to counter the shortfall of our depleting numbers of aircraft. A US think tank remarked that the **IAF's likelihood of reaching its 2027 goal with a high proportion of advanced fighters is poor.**

Body:

- The Air Force has only itself to blame for this state of affairs. Its philosophy has been **to go for the best, instead of the most economical solution.**
- So now we are stuck with a situation that it may have priced itself out, in the reckoning of the government.



The issues being faced by IAF with respect to maintaining numerical adequacy are:

- Even if the Air Force gets the sanctioned 42 squadrons, India's strength would be "less than the combined strength of our two adversaries.
- IAF fleet strength has been plagued by **poor decision-making, poor acquisition strategy and shoddy quality control and contract delivery**.
- It is stymied by **serious constraints on India's defence budget, the meagre achievements of the country's domestic development organisations and India's inability** to reconcile the need for **self-sufficiency in defence production** with the necessity of maintaining technological superiority over rivals
- The IAF had also ordered 43 Tejas jet fighters with another 83 planned for the Mark 1A version. However, though there is a value in procuring them to encourage domestic R&D, these aircraft are simply not capable of combat flying. The present version of the Tejas is an excellent aircraft as a **Lead-in fighter trainer (LIFT)**, but the IAF doesn't set much store by this concept, unlike most advanced air forces.
- For example it has yet to get 25 Su-30MKI that were to be delivered by 2017 by **HAL**. Upgrades, such as that of 47 Mirage 2000s have also been delayed. Likewise none of the 61 Jaguars which were to have been upgraded have yet joined service.
- The LCA, is, of course, a story of its own marked by **delays and performance problems**. In addition, in the last 10 years, the Air Force has 90 combat aircraft have crashed.
- **C&AG's Audit Report** of 2019 on '**Capital Acquisition in Indian Air Force**' revealed the following findings:
 - Volume I consisting of seven chapters discusses the systematic issues in the acquisition process. It includes details of ten acquisition contracts.
 - Volume-II consists of audit findings relating to the acquisition of Medium Multi Role Combat Aircraft through an Inter Government Agreement (IGA) with the Government of France. This includes examination of the pricing.
 - To acquire the right product at the right price, it is essential that the **qualitative requirements** (Air Staff Qualitative Requirements in the IAF-**ASQRs**) truly reflect the users functional need. This helps in generation of maximum possible competition and technical and price evaluation is done objectively.
 - Audit noted that IAF did not define the ASQRs properly. As a result none of the vendors could fully meet the ASQRs. ASQRs were changed repeatedly during the procurement process.
 - Audit noted that the vendor response to solicitation of offers was low, which restricted competition. Number of vendors who responded to the Request For Proposal (RFP) was far less than the number of vendors who were invited to bid.
 - Defence Ministry faced difficulties in realistically estimating the Benchmark price, making it difficult to establish the reasonability of price. This also caused delay in price evaluation and contract negotiations.
 - There were severe delays at various stages of the acquisition process. Against three years envisaged in Defence Procurement Process, four cases took more than three years and seven cases took more than five years to reach the contract conclusion stage.
 - Delays in acquisition were essentially due to a complex and multi-level approval process, where objections could be raised at any stage.

Way forward:

- Ministry needs to revisit the entire process of acquisition, to weed out redundant activities and simplify the process.
- The acquisition wing, headed by the DG (Acquisition) was envisaged as an integrated defence organization.
- For procuring highly technical products use of the Best Value method or a quantitative assessment method may ensure better value for money.
- Audit is of the view that the present 'Lowest Price Technically Acceptable (LPTA)' method of bid evaluation wherein the contract is awarded to the lowest priced offer which is technically acceptable, needs reconsideration.
- IAF should improve its process of formulation of ASQRs to ensure that they correctly reflect the users functional parameters.

Conclusion:

- The Indian defence system needs to have a deep look at the projected requirements of 42 squadrons which arise out of the government's political directive of taking on China and Pakistan simultaneously.
- The IAF's desire for 42-45 squadrons by 2027 — some 750-800 aircraft — is compelling, if India is to preserve the airpower superiority it has enjoyed in southern Asia since 1971.

