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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Q) Discuss how the recently released agriculture export policy is a welcome step in the direction of doubling farmers’ income by 2022. (250 words) 

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Q) Money has been central to many a fight at the climate negotiations. Discuss the issues surrounding climate finance that are dominating headlines before COP24? (250 words)

Q) Tackling climate change requires all countries to iron out the issues in framing the rulebook to implement pledges that were made by various countries at the Paris Climate Conference in 2015. Examine.

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Q) The results of Lancet Planetary Health study are disquieting, for they point to a looming public health emergency that necessitates a renewed focus on mitigating the hazards of air pollution in India. Discuss and critically analyze government policies for dealing with the crisis?

Q) Despite the environmental and human costs, and NGT orders banning rat-hole mining, it is widely practiced across Meghalaya. Critically analyze.

Q) There is an urgent need to reconsider green clearance mechanism for small-scale mining in India. Examine. 

Q) In recent years, we have seen a lot of farmer’s protests demanding loan waivers. Discuss the effectiveness of loan waivers in solving farmer’s issues? (250 words) 

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**TOPIC: Linkages between development and spread of extremism; Role of external state and non-state actors in creating challenges to internal security.**

Q) Mob violence in India is an indicator of the dysfunctional criminal justice system. Comment. (250 words)

Q) Kashmir stands today at the cusp of a new and dangerous phase. Comment in the context of the present turmoil in Kashmir. (250 words)
Q) Planning has had an immense impact on economic development of India and should continue to play a key role in economic decision making in the country. Analyze. (250 words)

The hindu

Why this question

The article describes the role that planning played in the initial years of economic development in India which laid the foundation for the successes enjoyed in the later years. This article discusses the issues with planning process in post LPG era and what the way forward must be. At a time when one of the criticisms of Niti Ayog has been the way it has handled planning, this issue is relevant for mains.

Key demand of the question

The question expects us to analyse how planning played a key role in bringing India on to the path of industrialization and how India became a model for other third world countries. Next, we need to analyze the role played by planning in current years and the issues with it. Finally, we need to discuss what sort of economic planning do we envisage in the coming years.

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 the nature of planning activity carried out in India in the form of five year plans that took place in India since independence.

Body

- Discuss how planning helped in industrialisation of the country in the early 1950s. This involved the setting up of public sector units (PSUs) in diverse areas of manufacturing; research institutions in cutting-edge technologies of the time such as space and atomic energy; and centres of higher learning, including the Indian Institutes of Technologies (IITs).
- Explain that through planning and foraying in to sectors such as machine building and nuclear research, which needed capital and technology more critically than labour, India was also challenging a deeply held orthodoxy in economic theory. Also highlight the fact that planning did very little to remove the hurdles to the growth of agriculture and small-scale industries.
- Examine the relevance of planning in post LPG era where the economy is more governed by market forces and role of planning overall has diminished.
- Discuss issues involved in the planning process in current time and give suggestions on how it can be used as a strategic tool.

Conclusion – Give your view on the relevance of planning in current context and discuss way forward.

Background :-
- Since independence planning activity has been carried out in India in the form of five year plans that took place in India.

Impact of planning on India :-
- India under Nehru’s leadership inaugurated a strategy for industrialisation of the country in the early 1950s. This involved the setting up of public sector units (PSUs) in diverse areas of manufacturing; research institutions in
cutting-edge technologies of the time such as space and atomic energy; and centres of higher learning, including the Indian Institutes of Technologies (IITs).

- By consciously entering into sectors such as machine building and nuclear research, which needed capital and technology more critically than labour, India was also challenging a deeply held orthodoxy in economic theory.
- The programmes launched in India from the 1950s onwards to build indigenous capabilities in capital- and technology-intensive sectors, despite the general poverty of the country, became a model for other developing and Third World nations.
- The debates around Indian planning provided a fertile launching pad for the evolution of development economics as an important sub-discipline.
- Successes that India enjoys today in the information technology and knowledge-intensive sectors owe much to the research and educational institutions that were built during the early decades.

**Negative :-**
- Planning did very little to remove the hurdles to the growth of agriculture and small-scale industries.
- India’s record during the post-Independence period in implementing land reforms and ensuring primary education for all has been rather unimpressive.
- As a result, the benefits from state-led development have so far reached only a minority of Indians.

**Why it should be given importance for playing a key role in the economic development of India :-**
- **India’s commitment towards development through planning had begun to diminish** from the early 1990s itself much before the Planning Commission was formally dismantled in 2014. After the introduction of economic reforms in 1991, public investment, especially on agriculture and industry, has been on a decline in the country.
- **PSUs have begun to be valued only for the returns they bring as commercial entities.** There has been little recognition of the important role that PSUs can play as creators of new technologies and knowledge, particularly in fields in which the private sector may have little interest or capabilities.
- **The disregard for planning and the general withdrawal of the state from economic decision-making have had important consequences on Indian industry.**
  - Despite the emergence of such a large domestic market, the record of Indian manufacturing in absorbing the large labour reserves in the country remains abysmal.
  - The imports of machinery, transport equipment, electronic goods and all their components have been rising continuously in India from the 2000s onwards.
  - This trend has not been reversed after the introduction of the ‘Make in India’ initiative.
- **Planning is not incompatible with markets and globalization:-**
  - On the contrary, a developing country trying hard to stay afloat amidst the turbulence of a global economy requires more guidance thorough industrial policies.
  - The successes achieved by East Asian countries such as South Korea in manufacturing are the result of strategic planning over several decades by their governments.
  - China is gradually shifting its economic base from low-wage industries, and is now emerging as a global leader, even ahead of the U.S., in several new technologies, including artificial intelligence and renewable energy. These Chinese achievements owe much to the careful planning and investments made by its government, particularly in the area of science and technology.
  - Employment cannot be resolved with the technologies that foreign companies bring into India, which tend to be labour saving. What India requires are technological advances that create new economic opportunities and absorb not displace labour.

**What needs to be done :-**
- India’s research institutions and our PSUs should engage in the creation and dissemination of such technologies.
- The country’s industrial policies should be able to enthuse young and educated entrepreneurs from rural areas to make use of these technologies to create new jobs.
- Planning should be brought back to the centre of economic discussions.

Q) The GDP back series calculations raises a lot of unanswered questions over how the economy has been faring since 2011. Examine and comment on the current state of Indian economy. (250 words)

Why this question
The GDP back series calculations have been presenting varying pictures over the status of Indian economy in the last decade or so. There is a need to understand the data in depth to have a better understanding of how the economy has been faring and the issues that it is faced with.

Key demand of the question

The question expects us to explain the GDP back-series data up to 2004-05 based on 2011-12 base year and discuss what it tells about the economy since 2011 and comment on the current state of the question 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 that the central statistics office has presented new GDP growth data under the new base series which has presented conflicting pictures and highlighted several issues involved therein.

Body – Highlight that the new calculation has revised GDP growth data based on calculations. However bring out that other economic metric are not in consonance with the other indicators of economic growth such as increase in capital formation, savings rate etc. Discuss what is meant by revising the growth figures and what actually are the takeaway from the entire exercise by CSO. Highlight that the economy has still failed to recover fully – bad debt, capital formation etc are huge issues that need tackling for economy to grow.

Conclusion – Discuss the relevance of the GDP back series calculations and bring out the current state of economy.

Background :-

- In August, the committee on real sector statistics, one of the five committees constituted by the National Statistical Commission, had calculated that the real GDP growth rate for 2006-07 was 10.08% under the new series (base 2011-12).
- So recently Central Statistics Office presented the final revised GDP growth numbers for 2004-05 to 2011-12 (base 2011-12).

GDP back series calculation raises many questions :-

- There are doubts if India has paid a high price for economic overheating that the governments policies had leading to rising and high fiscal and current account deficits, plunging rupee and bad loans in the banking system.
- It is difficult to replicate the calculations and verify the growth numbers because several assumptions lie behind the calculations.
- The estimated growth rates since 2011 are still too high, when compared with other data on economic activity, such as sales of commercial vehicles, purchasing managers’ indices, RBI industrial outlook surveys, mobile phone subscribers, air freight, and air passenger traffic.

Current state of Indian economy :-

- Bad debt problem in banks.
- India’s capital formation and savings rates have come down. The slide in fixed capital formation due to the heavy debt load in the balance sheets of banks and companies.
- Household savings rates have dropped 8 percentage points since 2004.
- The Rupee depreciated to one of its lowest values at about 67 rupees to a dollar.
- The Reserve Bank of India (RBI) had to run down its forex reserves by $11 billion last month to stem the rupee volatility.
- Foreign Portfolio Investors (FPI) withdrew about Rs 48,000 crore in the first six months of 2018 – the highest in a decade.
- The infrastructure deficit is a major concern and infrastructure investment needs to be stepped up as currently it is not in par with the needs of the economy.
- Other challenges for the economy include addressing infrastructural bottlenecks in the agricultural sector, investment in human resources to leverage the demographic dividend, increasing expenditure on education and healthcare sectors, and social security provision for the unorganized sector.
The money sunk into ailing banks, a slowdown in public investment, rising petroleum prices, slowdown in remittances from Indian workers abroad, and the sharp rise in stock prices and the fear of their equally rapid fall with foreign investors pulling out

Private investment continuous decrease in a decade (36% to 26%).

Suggestions to improve:
- The government needs to continue on its path of fiscal consolidation, both in terms of quantity and quality.
  - Government expenditure should be focused on areas where the returns are the highest – like health, education, increasing export competitiveness, logistics efficiency and infrastructure creation.
- India needs to diversify its oil import basket.
  - Many countries like Saudi Arabia and UAE are willing to step in if Iranian imports stop. India needs to negotiate this further and also deal with the US on the issue of sanctions waiver.
  - Rising inflationary expectations need to be kept under control.
  - Long-term systemic reform of agriculture needs to continue by making procurement system stronger
- Strengthening WTO and adhering to rules based trading order is the necessity.
- Strengthening Banking sector:-
  - There is a need to creation of bad bank, asset management company, asset reconstruction company to take care of huge NPA.

Q) India and most of the developing world face a twin challenge—closing the infrastructure financing gap and changing the composition of financing. Critically Analyze. (250 words)

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 delve deeper into the infrastructure and infrastructure needs of India and describe the twin challenges it faces. On the bases of our discussion we have to form an opinion on the issue.

Structure of the answer

Introduction- write a few introductory lines about the infrastructure needs of India. E.g It is estimated that infrastructure investments needed in energy, transport, telecommunications, water and sanitation, education, and health projects will amount to more than 5% of gross domestic product (GDP) in developing countries.

Body-

- Discuss the twin challenges faced by developing economies like India. E.g Meeting the financing gap needed for infrastructure services will be one of the biggest challenges in development. Unlike in the UK and the US, in developing economies, nearly 70% of the funding for infrastructure projects comes from the government budget, 20% from private players, and 10% from multilateral development banks; Commercial banks have dominated the financing of infrastructure projects. This amounts to the government transferring a huge amount of risk from public to the private sector. With the structure of financing such that there is heavy reliance of private financing on the public sector and with heavy termination clauses included in PPP contracts, the government is potentially exposed to fiscal risks; Given rising global macroeconomic and trade concerns, changing the composition of financing is as important as maximizing infrastructure capital. Changing the composition of capital flow also has the potential to increase the efficiency and sustainability of public finance and infrastructure projects etc.

- Bring out the need for multiple sources of financing development projects. E.g While commercial banks will continue to be an important source of infrastructure finance, capital markets need to play a bigger role, given the increased demand for long-term sources of
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finance for infrastructure projects. Bond markets, especially local currency bond markets, will be critical to filling the infrastructure-investment gap etc.

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

Background :-

- In a modern society people are demanding improved infrastructure to meet their aspirations. This aspiration is particularly acute in the developing world, given the poor infrastructure and huge development financing needs.
- The infrastructure investments needed will amount to more than 5% of gross domestic product (GDP) in developing countries

Countries are facing twin challenge:-

- Complicated mix of financing:-
  - Unlike in the UK and the US, in developing economies, nearly 70% of the funding for infrastructure projects comes from the government budget, 20% from private players, and 10% from multilateral development banks.
- Banking risks:-
  - Commercial banks have dominated the financing of infrastructure projects. This amounts to the government transferring a huge amount of risk from public to the private sector. So due to this the government is potentially exposed to fiscal risks.
- The infrastructure financing gap has widened due to shortfall in PPP projects, especially in power and telecom, land and forest clearance issues, and above all, the adverse impact of stressed balance sheets of private sector.

However there are changes visible:-

- While the infrastructure financing gap is huge in the developing world, the potential for attracting private investment for infrastructure projects is also huge.
  - The basic traits of infrastructure projects, such as market size, long-term steady revenue stream, and investment returns that exceed inflation, make them attractive for institutional investors.
- Countries are taking positive policy models:-
  - India has experienced a rapid increase in the number of public-private partnership (PPP) infrastructure projects during the last two decades.
- Untapped sectors:-
  - India’s energy efficiency market, estimated to be more than $12 billion per year, is one of the largest untapped energy-efficiency markets in the world.

What needs to be done?

- There is a need to enhance a huge potential for creating markets and improving the preparation and regulation of PPP projects in areas such as time taken to prepare projects, contract management, risk management, socioeconomic impact, affordability, and bankability of projects, and meeting the strategic importance of development goals.
- Capital markets need to play a bigger role, given the increased demand for long-term sources of finance for infrastructure projects. Bond markets, especially local currency bond markets, will be critical to filling the infrastructure-investment gap.
- There is also a need to avoid currency mismatches from borrowing in foreign currency for projects that generate revenues largely in local currency.
- Combining resources i.e., international and domestic, public and private, corporate and philanthropic is needed to achieve the necessary levels of financing.
- More fiscal reforms could also generate more revenues to bridge the infrastructure financing gap.
  - Taxation will play a key role in incentivizing investment and ensuring that the proceeds of investment are redistributed and reallocated in line with sustainable development priorities.
- A lot more regulatory and institutional reforms are also needed to make infrastructure projects more attractive for private investors.
- Recent economic survey stressed the need to fill the infrastructure investment gap by financing from private investment, institutions dedicated for infrastructure financing like National Infrastructure Investment Bank (NIIB) and also global institutions like Asian Infrastructure Investment Bank (AIIB) and New Development Bank (erstwhile BRICS Bank).
Why this question

With the resignation of RBI governor, the focus has shifted to the relationship between RBI and the government and the need for making RBI accountable to the parliament. This article discusses in detail the issues involved and hence this question.

Key demand of the question

The question expects us to first discuss the global scenario with respect to relationship between government and central banks and explain how the situation in India is quite similar. Discuss the reason behind such tussle in the world in general and India in particular. Here we need to discuss issues surrounding independence of RBI, monetary policy framework agreement, need for accountability, issues or capital reserves. Finally, a fair and balanced opinion is to be provided as to what must be 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 – Mention about the resignation of RBI governor and the kind of issues that it has raised.

Body

• Highlight that across the world government are demanding greater accountability from their central banks. Explain the issue in general – Central banks everywhere, from Turkey to the US, are under increasing pressure from the governments. While central bankers say that they need to be free from pressures from the governments and lobby groups to focus on their job of containing inflation and maintaining financial stability, their critics say that they are too secretive and have leaned in favour of big financial institutions over the interests of common citizens they are duty-bound to serve. Explain what is happening in India

• Discuss in detail the situation in India. Bring out the issues where there is a difference in opinion between RBI and government such as monetary policy committee, inflation vs growth management etc.

• Examine whether there is a need to make RBI more accountable to the parliament.

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

Background:

• Reserve Bank of India has worked as efficiently as any top central bank of the world right from its inception. It was blessed with absolute independence to control or manage monetary liquidity, price stability, exchange rate stability, and later on financial stability also.

• However recently simmering differences between the Reserve Bank of India (RBI) and the Central government over issues of public sector bank regulation, resolution of distressed assets and the central bank’s reserves, independent payments bank regulator, easing credit to small firms have raised questions about the independence of RBI.

Relationship between central banks and governments around the world is debated:

• Central banks everywhere, from Turkey to the US, are under increasing pressure from the governments. While central bankers say that they need to be free from pressures from the governments and lobby groups to focus on their job of containing inflation and maintaining financial stability, their critics say that they are too secretive and have leaned in favour of big financial institutions over the interests of common citizens.
Earlier this year, the mandate of the Reserve Bank of New Zealand (RBNZ), which first put in place an inflation targeting regime was changed from its sole objective of price stability to also include fostering sustainable employment.

In the UK, the Bank of England and Her Majesty’s Treasury signed a memorandum of agreement on the financial relationship between the two outlining the framework for determining its capital, payment in lieu of its dividend, issue of notes and the information sharing arrangements between the Bank and the Treasury.

Indian scenario :-

Recently simmering differences between the Reserve Bank of India (RBI) and the Central government over issues of public sector bank regulation, resolution of distressed assets and the central bank’s reserves, independent payments bank regulator, easing credit to small firms have raised questions about the independence of RBI.

Recent issues surrounding the Section 7 of RBI act:-

- The issue of invoking Section 7 (1) of RBI Act came up during the hearing of Allahabad high court in a case filed by the Independent Power Producers Association of India challenging RBI’s 12 February circular. The high court said the government could issue directions to RBI under Section 7 of RBI Act.
- Against this backdrop, the government issued a letter to the RBI governor seeking his views on exemption for power companies in relation to the 12 February circular. The second instance was when the government on sought the governor’s views on using RBI’s capital reserves for providing liquidity.
- Exercising powers under this section, the government has sent several letters to the RBI governor in recent weeks on issues ranging from liquidity for non-banking financial companies (NBFCs), capital requirement for weak banks and lending to micro, small and medium enterprises (MSMEs), withdrawal of Prompt Corrective Action for public sector banks.
- Government believed that easing of lending rules for the banks under the prompt corrective action (PCA) framework could help reduce pressure on MSMEs. However, the RBI argued that such a move would put the clock back and undo clean-up efforts.
- With the credit markets tightening after the IL&FS default in September, non-banking finance companies lobbied the government for more liquidity. But RBI maintained its position since the banking system did not witness any spike in borrowing costs and the market was just repricing risk in an evolving situation.
- Reportedly, the government and the RBI disagree on a large number of important issues such as classification of non-performing assets (NPAs) and setting up of a payments regulator independent of the RBI.

Why an independent RBI is necessary :-

- Governments sometimes tend to make poor decisions about monetary policy. In particular, they tended to be influenced by short-term political considerations.
- Before an election, the temptation is for a government to cut interest rates, making boom and bust economic cycles more likely. Therefore arguably, it is better to take monetary policy out of the government’s hands and place it in the central bank’s purview.
- An independent Central Bank may have more credibility. If people have more confidence in the Central Bank, this helps to reduce inflationary expectations. In turn, this makes inflation easier to keep low.
- In a central bank dominated by the government, the temptation to tamper with various instruments of monetary policy in order to achieve the government’s objectives would be hard to resist. For instance, the ministry of finance could want to reduce interest rate to push up demand, without considering the impact of rate cut on foreign inflows, depreciation of the rupee and increase in domestic money stock and inflation. There could be many more such examples. To avoid this an independent central bank is necessary.
- An independent central bank is essential for ensuring stable and sustainable growth in any economy.
- There are always government entities that are seeking oversight over various aspects of the RBI’s activities. Multiple layers of scrutiny, especially by entities that do not have the technical understanding, will only hamper decision making.

Why central bank needs to be more accountable to the parliament:-

- The progressive widening and deepening of the activities of the RBI in different sectors of the economy affect the lives of millions.
- Nature will ignore the short term effects of their policies on the economy, the brunt of which has to be borne by the Parliament.
How can the dichotomy be resolved:

- **International examples:-**
  - There has to be a forum within the democratic structure where the RBI is obligated to explain and defend its position.
  - Different countries have taken different routes and by and large each model is appropriately tuned to their specific contexts.
  - US example is a good model to work upon. Presentation by the chairman of the Federal Reserve to the Congress makes for public exposure and transparency but does not take away the chairman’s autonomy.

- **The governor should be responsible and accountable to Parliament and not to a particular government or the ministry of finance, or minister.** He can testify to Parliament twice a year. In separate testimony in both houses of Parliament, the lawmakers can ask questions of the RBI Governor and the latter can respond.

- A better way to sort out these differences and to come to a conclusion is to have a larger debate with technical experts weighing in.

- On issues of operational autonomy, the central government needs to lay off its pressure on the RBI.

- On macro issues such as exchange rate management and RBI’s dividend policy, written agreements that clearly demarcate roles and responsibilities can be thrashed out.

- The Monetary Policy Framework Agreement and the FRBM Act are good illustrations of how a mutually agreed rule-based framework can broker peace between the central bank and the executive arm of government.

- If the issues are not resolved, the tussle will undermine investor confidence and strengthens fears about institutional erosion when India is already experiencing economic turmoil.

**Q)** What do you think India needs to do to become a 5 trillion dollar economy. Discuss.(250 words)

*Economictimes*

**Why this question**

In this article, Raghuram Rajan provides insights into the conditions in India and provides suggestions as to what needs to be done by India to double the size of its economy.

**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 steps needed to be taken/ reforms needed to be made etc in order to make India a 5 trillion dollar economy.

**Structure of the answer**

**Introduction**– write a few introductory lines about the size of Indian economy and the present trends of growth.

**Body**-

Discuss in points, what needs to be done to make India a 5 trillion dollar economy. E.g Need for strong institutions and regulators especially in the fields of environment and finance; need for environmentally sustainable growth; need to improve the Child nutrition and learning outcomes; Need for creating employment opportunities for the vast youth of India etc.

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

**Background :-**

- India registered a growth rate of over 6.7 per cent last year and is being pegged as the fastest-growing economy by the International Monetary Fund (IMF),
What India needs to do to become a trillion dollar economy :-

- **Focus on equity and employment :-**
  - India actually need more equitable growth than today. Reports of 25 million people applying for 90,000 railway jobs is something that suggests there is not enough supply of jobs in the market.
  - Need for creating employment opportunities for the vast youth of India

- **Institutional strength :-**
  - The factor that helps India grow in a healthy way is strong institutions, whether it is the pollution regulator, the emissions regulator or whether it is the financial regulator. They have to stand as independent bodies to ensure India’s growth is healthy and stable.

- **Infrastructure :-**
  - Key to stronger growth will have to be areas like construction where building the infrastructure that India needs, will employ a lot more people and create jobs for people leaving agriculture as well as for modestly educated people from urban areas.

- There is a very **strong need for oil hedging mechanism** for India which is so dependent on oil.
  - India needs to diversify its oil import basket.
    - Many countries like Saudi Arabia and UAE are willing to step in if Iranian imports stop. India needs to negotiate this further and also deal with the US on the issue of sanctions waiver.

- **Quality of education :-**
  - There is a need to shift towards improving the quality of education and that means a lot of remedial education to ensure that children are not left behind.

- **Research :-**
  - Focus on improving the quality of research or the quality of our universities and as a by-product our companies will also get better.
  - Have a robust and reliable data so that economic decision makers can take decisions on that basis.

- **Healthcare :-**
  - Need to improve the Child nutrition and learning outcomes

- **Long-term systemic reform of agriculture needs to continue by making procurement system stronger**

- **Strengthening Banking sector :-**
  - There is a need to creation of bad bank, asset management company, asset reconstruction company to take care of huge NPA.

Q) Stagnant incomes has more than offset any “asset” gains made in the recent period. Analyze. (250 words)

**Indian express**

**Why this question**

*The recent elections can be objectively analyzed if we look at the conditions of the rural sector of India during the recent years. The article looks into asset creation and stagnant incomes in rural India.*

**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 discuss the asset creation in recent years in India and the reasons for stagnant income besides such improvements.*

**Structure of the answer**

*Introduction – Mention about the size, demographic composition and other important data related to rural India.*
Body-
Discuss the asset creation during the recent years. E.g The last three fiscals have seen over 1 crore houses being built under Central schemes, including the Pradhan Mantri Awas Yojana-Gramin; The number of active domestic LPG connections has, thanks to the Pradhan Mantri Ujjwala Yojana, gone up from 15.33 crore in June 2015 to 24.72 crore in October 2018, with overall household penetration levels, too, rising from 57.86% to 88.51%; Of the country’s 21.69 crore rural households, 20.87 crore (96.24%) are now electrified. Under the Saubhagya scheme, launched on September 25, 2017, the number of un-electrified households has reduced from around 4 crore to just 81.53 lakh; More than 8.98 crore household toilets have been built in rural India since October 2, 2014 under the Swachh Bharat Mission-Gramin;

Discuss the stagnant incomes due to low crop prices and stagnant wages. E.g Since 2014-15, the average annual increase in the wholesale price index has been only 2.75% for “food articles” and 0.76% for “non-food” agricultural articles. As against this, the same during the preceding five-year period amounted to 12.26% and 11.04%, respectively, while higher than the average annual general wholesale inflation of 6.89%; a marked decline in rural wage growth for agricultural and non-agricultural occupations after 2014-15, with the average yearly increase working out to about 5.2% in nominal terms. That is slightly above the corresponding rise of 4.9% in the rural consumer price index, pointing to a virtual stagnation in real rural wages.

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

Background :-
• The government has increasingly focused on asset creation through building roads, houses and toilets or providing access to electricity, LPG and broadband connectivity. Despite that incomes have stagnated.

Asset gains made in the recent period :-
• The total number of rural houses constructed since 2015-16 under Central schemes, including the Pradhan Mantri Awaas Yojana-Gramin, is 3.3 times that during the preceding four financial years.
• The pace of rural road construction has significantly increased during this government’s tenure.
• The number of active domestic LPG connections has gone up from 15.33 crore in June 2015 to 24.72 crore in October 2018, with overall household penetration levels, too, rising from 57.86% to 88.51%.
• Under the Saubhagya scheme, launched in 2017, the number of un-electrified households has reduced from around 4 crore to just 81.53 lakh.
• More than 8.98 crore household toilets have been built in rural India since 2014 under the Swachh Bharat Mission-Gramin.
• The BharatNet project has so far enabled laying of optic fibre cable lines in 121,859 out of India’s 2.5 lakh Gram Panchayats (GP).
• 38 crore bank accounts, with 19.75 crore of it in rural areas, have been opened under the Pradhan Mantri Jan-Dhan Yojana.

Stagnant incomes in India:-
• Low crop prices and stagnating wages :-
  o Without jobs or incomes, paying for power or refilling of the cylinder becomes that much more difficult.
• Farm income has stagnated and farmers now face a potential fall in their income, a trend which is visible in the sharp disinflation in food prices in recent months. The developments have brought forth the worrying possibility of increasing distress in rural India.
• A marked decline in rural wage growth for agricultural and non-agricultural occupations after 2014-15, with the average yearly increase working out to about 5.2% in nominal terms. That is slightly above the corresponding rise of 4.9% in the rural consumer price index, pointing to a virtual stagnation in real rural wages.

Way forward :-
• There is a need to improve the incomes especially in rural areas. India should relax rules for companies investing in contract farming, transport, marketing, warehouses and food processing.
• States must develop and defend agricultural markets that work for smallholders by reducing transaction costs and counterparty risks, and raising price discovery, price transparency and bargaining power, strong public extension services, enhanced credit disbursal complemented with proper guidance and policies, etc.
• Rural jobs need to be created.
“The progress made in Ease of Doing Business (EODB) rankings is real, but it’s time for another exercise that takes a ground-up look at our current regulatory frameworks.” Analyze in the context of regulatory architecture for MSMEs? (250 words)

Why this question

The article highlights the problem of regulatory maze that surrounds the MSME sector and the challenges it creates for them. At a time when credit availability for MSMEs has been focussed on a lot, simplifying the regulatory architecture will also help in the progress of MSMEs.

Key demand of the question

The question expects us to highlight the plethora of regulations that exist for MSME sector and why and how rationalising these regulations will help in freeing up the shackles of MSME sector and accelerate their growth.

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 India has recently made rapid strides in EODB rankings. To further improve EODB for MSMEs there is a need for relook into the regulatory architecture for MSMEs.

Body

First of all highlight the sheer quantum of regulations that the MSME sector has to contend with.

Discuss the challenges caused for the MSME sector as a result of the present regulatory architecture – compliance burden, lack of capacity etc

Discuss what needs to be done. Mention that focus has to be on 3 things – vectors—rationalization (cutting down the number of laws), simplification (cutting down the number of compliances and filings) and digitization (architecting for true paperless, presence-less and cashless). Also bring out how the same can be achieved.

Conclusion – Emphasize on the importance of MSME sector for the economy and how tackling this issue would have a multiplier effect on our economy.

Background :-

- India is ranked 77th among 190 countries by leapfrogging 23 ranks in World Bank’s Ease of Doing Business (EODB) 2018 rankings.
- This improvement should be welcomed as it will attract more investment, help the depreciating rupee, help towards structural reforms, boost entrepreneurship etc. To further improve EODB for MSMEs there is a need for relook into the regulatory architecture for MSMEs.

Ease of doing business Index does not take a look at ground work :- (Summarise this aspect in short in the answer)

- Political influence:-
  - Recently world Bank’s chief economist raised concerns that the rankings could have been influenced by politics.

- Methodology issues:-
  - It limits its sample size to just a few major cities, thus projecting an imperfect picture of overall business conditions.
  - In the real India, it still takes 156 days to get a building plan sanctioned, and 1,445 days in court to get a judicial verdict on a civil dispute.
  - Does not directly measure more general conditions such as a nation’s proximity to large markets, quality of infrastructure, inflation, or crime.
  - Methodological weaknesses, an uncertainty in the ability of the indicators to capture the underlying business climate, and a general worry that many countries may find it easier to change their ranking in Doing Business than to change the underlying business environment.
• Experts wondered if governments may be gaming the rankings by tailoring their policies to specifically fit the World Bank’s criteria instead of trying to enact wider structural reforms.
• Questions were raised whether the bank is right to measure a country’s business environment based on written legal rules rather than investigating the actual ground conditions in which businesses operate.
• Businesses:
  o Many businesses, for example, may be able to bribe their way out of bad rules. There was significant variation between World Bank’s surveys and actual business conditions.
  o Ease of running a business is just as difficult as before with archaic labour laws, increasingly militant trade unions, undisciplined and low productivity labour, besides the regular rent collecting proclivities of government agencies. There is little sign that this is improving.

Regulations for MSME:
• Strong credit demand in this segment, among other things driven by formalization of credit demand is likely to keep the overall NPA rate in this segment in check.
• In addition, RBI relief to MSME borrowers with aggregate exposure up to Rs 25 crores, giving 90 day extension for repayments, is likely to lead to a reversal of about Rs 15,000 crores Gross NPA in this segment.
• Mudra scheme:
  o Loans offered to small businesses in the unorganized sector are now covered by a credit guarantee scheme. It also helps bridge the shortfall in loans for these businesses. This helps small entrepreneurs save on the interests that they need to pay.

Challenges due to these regulations:
• Nearly 16% of the new borrowers who took loans up to Rs 10 lakh between January and June 2016 have defaulted since then. This delinquency rate falls sharply to about 4% for loans above Rs 10 lakh. So this means that the ultra-small businesses haven’t been able to scale up their business or even generate revenue to cover costs.
• Government’s demonetization drive, MSMEs were among the worst hit sector as their businesses were cash based. The response was not just limited to demonetization but also during the GST.
• MSMEs are exposed to market-linked volatility thus the credit risk is high.
• The typical need of a SME is around INR 10-20 lacs, as against a larger corporation which runs into hundreds of crores. The cost of servicing such a small-sized loan from a bank or an NBFC is very high and therefore, financial institutions are likely to avoid such requests.
• Collateral:
  o Additionally, to avail loans, one needs to offer collateral – a personal property or manufacturing plant or even machinery. Most the SMEs do have much to offer as collateral; hence lending firms view them as high-risk requests.
• Financial Reporting:
  o The SMEs also need to back their loan request with tax-returns, balance sheets and other financial documents which speak about the health of the companies.
• Recently In his note to Parliament’s Estimates Committee on bank non-performing assets (NPAs), Former RBI governor has flagged three major sources of potential trouble:
  o Mudra credit, which is basically small-ticket loans granted to micro and small enterprises. The disbursement under Mudra loans alone is Rs. 6.37 lakh crore, which is over 7% of the total outstanding bank credit. These loans have been sanctioned under the Pradhan Mantri Mudra Yojana.
  o Lending to farmers through Kisan Credit Cards
  o contingent liabilities under the Credit Guarantee Scheme for MSMEs, run by the Small Industries Development Bank of India.
• Impact on MSME due to GST:
  o Costs:
    ▪ India’s paradigm shift to the Goods and Services Tax (GST) regime will increase their compliance costs and snare a majority of them into the indirect tax net for the first time.
    ▪ For manufacturers, the reduction in the threshold for GST exemption to Rs.20 lakh from Rs. 1.5 crore means tens of thousands of unorganised MSMEs will soon be cast into the tax net
    ▪ GST will have a marginally negative impact because of higher tax rates
SECURE SYNOPSIS

- **Input Tax Credit**
  - Along with the initial confusion and infrastructure glitches that took some time to stabilize, there were reports of delays in receiving Input Tax Credit (ITC), which directly affected the MSME industry.
  - The advent of GST also affected supply chains, notably where small traders acted as suppliers of intermediates to larger manufacturing companies.
  - In addition, with most MSMEs not being listed entities, their monthly or quarterly business performance filings are also largely unavailable.
  - While the delay in trade receivables impacted all the companies in the MSME sector, the export segment took most of the hit.
    - Increased cost of compliance and an evolving refund mechanism resulted in a spike in working capital needs of exporters.
  - The transition to the GST regime affected the MSME sector more than any other, since its players lack compliance infrastructure to map their outstanding inventory with tax invoices. Furthermore, its weak credit profile and risk weightages attached to it by banks, pushed it closer to higher credit change options from the non-banking finance segment.

- **Labour laws**:
  - These pieces of legislation put various restrictions on employers in terms of hiring, retaining and terminating the workers etc.

**What more needs to be done?**

- **Priority lending to honest taxpayers**
  - The government need to incentivise MSMEs who pay promptly and within timelines. Adding to this, banks and associated financial organisations can introduce priority lending for honest taxpayers based on returns filing. This would improve the working capital for these businesses and have a positive impact.

- **Reducing time limit for reversal of ITC**
  - ITC ought to be inverted under the CGST, in case the receiver is unable to pay to the supplier within a time period of 180 days. Ideally, for MSMEs, this time limit should be lowered to 90 days. As, being a part of the working capital and a lifeline for their business, any postponement in the payments is sure to impact business operations at all times.

- **Increasing definition of class of persons**
  - The class of person definition has been raised from Rs 3 crore to Rs 5 crore. An additional increase of Rs 10 crore is recommended because it will then cover MSME service and industrial units, thus, amounting to benefits at large.

- **Adding POS solutions to ‘Digital MSME’ scheme**
  - As per the recent changes, taxpayers with turnover of up to Rs 5 crore can file GSTR – 1 on a quarterly basis. The best way to tackle this is to use Point of Sale (POS) solutions that provide end-to-end assistance from generating digital invoices to payments to capturing data.
  - MSMEs with a turnover of Rs 2 to Rs 3 crore can easily use POS, along with the associated digital compliance and filing software, to maintain their data and file on time.
  - And the government can further expedite this process by subsiding POS sales. Under the ‘Digital MSME’ scheme that promotes cloud computing, POS solutions can also be introduced as one of the products.

- **Focus has to be on 3 things**:
  - Rationalization (cutting down the number of laws), simplification (cutting down the number of compliances and filings) and digitization (architecting for true paperless, presence-less and cashless).

Q) Discuss why have conditions for workers in most parts of the world not improved commensurately given the global output recovery of recent years? (250 words)

**Livemint**

**Why this question**

The article discusses the fact that despite global growth seeing an upturn in recent years, wage growth for workers has not increased at the same pace. The article analyses the reasons behind it.
and suggests alternate policy measures. In India too, wage growth across sectors has not kept pace and hence this question will help you understand the reasons and give suggestions for improvement.

**Key demand of the question**

The question expects you to first highlight the status of global growth and bring out the fact that wage growth has not kept pace. Thereafter, we need to delve deeper into the issue to understand why this is so. Your analysis need not necessarily be limited to Indian situation but should also bring out the issues with neoliberal policies all around. Thereafter, we need to give suggestions for bringing about a change in status quo.

**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 findings of ILO. The International Labour Organization’s (ILO) latest Global Wage Report finds that, excluding China, real (inflation-adjusted) wages grew at an annual rate of just 1.1% in 2017, down from 1.8% in 2016. That is the slowest pace since 2008.

**Body**

Bring out the situation in developed and developing countries. Also highlight that gap between wage growth and labour productivity remained wide in 2017. In many countries, labour’s share of national income is still below the levels of the early 1990s.

Discuss the reasons behind the same

- Large labour-surplus economies’ deepening integration into the global market, together with increased reliance on automation and Artificial Intelligence, has weakened workers’ bargaining power and shifted labour demand into very specific and limited sectors.

- Highlight the political reason behind the same – governments focused solely on improving “labour-market flexibility” have pursued policies that privilege employers’ interests over those of workers, not least by undercutting workers’ ability to organize. An obsession with fiscal consolidation and austerity has prevented the kind of social spending that could expand public employment and improve workers’ conditions. The current regulatory environment increasingly allows for large corporations to wield power without accountability, resulting in higher monopoly rents and greater bargaining power. Etc

Discuss the alternate approach followed by China and how it has been able to get wage growth. Explain that in China what has happened is productive sector has absorbed surplus labour and push up wages over all. China has augmented this effect through systematic state policies designed to improve labour conditions.

Give suggestions for improvements – suggest tweaking the neoliberal paradigm, better policies to protect workers rights etc.

**Conclusion** – Summarize your findings as regards to the reason behind falling wage growth and suggest way forward.

**Background :-**

- The International Labour Organization’s (ILO) latest Global Wage Report finds that, excluding China, real (inflation-adjusted) wages grew at an annual rate of just 1.1% in 2017, down from 1.8% in 2016.

- Gap between wage growth and labour productivity remained wide in 2017. In many countries, labour’s share of national income is still below the levels of the early 1990s.

**Why condition of labour has not improved :-**

- Large labour-surplus economies deepening integration into the global market, together with increased reliance on automation and Artificial Intelligence, has weakened workers’ bargaining power and shifted labour demand into very specific and limited sectors.
• From country to country, legislation and court judgments are increasingly trampling on long-recognized labour rights. Governments focused solely on improving “labour-market flexibility” have pursued policies that privilege employers’ interests over those of workers, not least by undercutting workers’ ability to organize.
• Increase in focus on fiscal consolidation and austerity has prevented the kind of social spending that could expand public employment and improve workers conditions.
• The current regulatory environment increasingly allows for large corporations to wield power without accountability, resulting in higher monopoly rents and greater bargaining power.
• Neoliberalism’s intellectual capture of economic policymaking across a wide range of countries, is resulting in the exclusion of most wage earners from the gains of economic growth.
• Indian scenario:-
  • The crucial Labour Code on Industrial Relations is already diluted to pacify labour unions .The government had first sought to allow companies to lay off 300 workers without approval but later abandoned the idea saying it would stay with the current level of 100 workers.
  • The much-touted rationalisation and consolidation of 44 labour laws into four omnibus codes is yet to become reality.
  • Attempts at reforming Indian labour market have been rather slow. Even the globalization and liberalization process impacted labour market in limited manner.
  • India missed the opportunity of being manufacturing hub of the world due to rigidities in labour market, archaic labour laws and glaring skill deficit.
  • Significant skill shortage across the country makes the labour market quite unattractive especially for foreign direct investment.
  • In terms of vocational skills, India fares worse than some of the developing countries such as Mexico where the percentage of youth having vocational training is 28 per cent.
  • Lack of a holistic labour policy is a major obstacle in the way of developing a liberal labour market which can contribute towards making a competitive manufacturing and service industry ecosystems in the country.

Way forward :-
• China has augmented this effect through systematic state policies designed to improve labour conditions.
• At the same time, the government has expanded other forms of social protections for workers, all while pursuing industrial policies geared toward boosting innovation and productivity growth, thus moving the country up the global value chain.
• Labour laws need to be simplified and brought in line with contemporary economic realities, including especially current international practice.
• The labour enforcement machinery needs to be further strengthened in the interest of better enforcement of labour laws.
• It is important to eliminate absurdities, dualities and ambiguities from existing labour laws so that industry is in a better position to leverage full potential of labour market.
• Labour laws should foster an enabling environment so far as employment practices are concerned.
• Faster reforms in the power sectors, facilitation of entry and exit of firms, level playing field for small and large firms, improvement in access to finance and informing firms will lead to improvements in ease of doing business norms.

Q) Examine the issues faced by workers of gig economy? Evaluate how they stand in comparison to workers of formal economy? (250 words)

Financial express

Why this question
The article analyses the issues or the advantages faced by workers of gig economy versus how they compare to workers of formal economy. At a time when gig economy has become the new fad, and issues with respect to social protection for workers of gig economy remains, the question becomes important.
Key demand of the question

The question expects us to compare and contrast the issues faced by workers of gig economy versus workers of the formal economy. Thereafter, we need to analyze whether any step needs to be taken for securing rights of those working in gig 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 – Explain what is meant by gig economy – labour market characterised by the prevalence of short-term contracts or freelance work as opposed to permanent jobs

Body

- Discuss the issues faced by workers of gig economy – no law governing their employment conditions such as working hours, working conditions etc
- Compare and contrast the issue faced by workers of gig economy and formal economy with respect to various parameters such as social security benefits, minimum wages etc
- Discuss what steps must be taken to improve the conditions of workers of gig economy, whether they need rights equivalent to workers in formal economy.

Conclusion – emphasize that gig economy is here to stay and the need of the hour is to protect the basic rights of these workers too.

Background :-

- The ‘gig economy’, also described as the ‘sharing economy’, ‘collaborative economy’ or ‘on-demand economy’, has been growing rapidly around the world.
- A 2016 McKinsey report found that up to 162 million people in Europe and the US 20-30% of the working-age population engage in some form of independent work, whether out of choice or necessity.

Gig economy :-

- The gig economy is a labour market characterised by the prevalence of short-term contracts or freelance work as opposed to permanent jobs and is ubiquitous globally, and India is no stranger to it.
- This is the economy where instead of full-time employment, organisations contract with independent workers for short-term engagements.
- In a gig economy, temporary, flexible jobs are commonplace and companies tend toward hiring independent contractors and freelancers instead of full-time employees. A gig economy undermines the traditional economy of full-time workers who rarely change positions and instead focus on a lifetime career.
- Some of the examples of gig economy comprises enterprises are Uber, the driver hire app, Airbnb, the accommodation-sharing platform, and Deliveroo, the online food delivery company.

Issues faced by workers of gig economy:-

- Minimum wages in India are woefully low. Earning an ‘employee’ status may not entitle them to more than what they currently make.
- Outside social security:-
   - Social security laws like the EPF and ESI currently only cover employees earning below Rs 15,000 and Rs 21,000 per month, respectively. If drivers earn more, they may not be entitled to these benefits, even after they get employment status, leaving them in a position that isn’t significantly better than before.
- Most Indian employment laws expressly prohibit dual employment, i.e. individuals cannot carry out two jobs if the total working hours exceed 8-9 hours a day based on location. Many gig workers work with multiple apps at the same time to supplement their income, which may become harder or illegal to do if they attain employment status with app operators.

Advantages :-

- Best talent:-
  - In the digital age, the worker need not sit at a fixed location the job can be done from anywhere, so employers can select the best talent available for a project without being bound by geography.
SECURE SYNOPSIS

- Flexible work:-
  o Supporters of the gig economy argue that it enables more people to participate in the labour market by providing flexible working, provides opportunities for the unemployed and could increase productivity.
  o Indeed, flexible working has proven very popular among the working population as more seek to achieve the perfect work-life balance.
- Both consumers and organisations can benefit through greater availability and accessibility of services and improved matching that better fulfils their needs.
- There is also the benefit of minimal cost:-
  o Digital business models have lower transaction costs for consumers, and organisations can keep costs down by using independent service providers only when they need them.
- Profitability
  o A clear advantage was profitability for businesses where employers who used these workers reported that they were important to the company’s overall profitability and efficiency.
- Skill development:-
  o The people who want to learn new skills and explore new avenues can find great new opportunities in the gig economy. Apart from independence, the gig economy provides variety where you find options to try new jobs and juggle between several roles.

How these people stand in comparison to workers of formal Economy:-
- In the recent spate of strikes by app drivers and delivery persons and none of them seem to be expressly seeking employment status from these companies. Most demands relate to improvement in incentives not permanent employee status
- They have little by way of a safety net to fall back on as there are no mandatory PF savings, no access to ESI hospitals, no workman compensation for accidents, etc, as these benefits are targeted primarily towards the organised sector.
- Concerns over job insecurity and low income.
- Security
  o A big drawback for a gig economy system was the lack of security for workers.
  o Those working in the gig economy do not enjoy the same rights and protections as employed workers, such as health benefits, overtime pay and sick leave pay.
- Motivation
  o Many businesses were concerned that a gig economy would decrease productivity as employers thought it make workers less dedicated and said that they would create a less motivated workforce.
- Compliance issues:
  o Gig economy has created jobs that do not fall in the traditional category and it is why it has also given rise to controversies and legal tussles. The rights of the gig workers are not as well defined as the traditional employees.
- Lack of training and skill development opportunities:
  o Inside the organizations, training and skill development models are available only to the regular employees. The gig workers do not have such resources available to them.
- Career management issues:
  o The gig workers are in short term relationships with the employers and therefore do not have a definite career. While the highly skilled workers may find better security because of high demand and low availability, the less skilled workers may often find it difficult to obtain suitable gigs and consistent employment.

Way forward:-
- Minimum wages need to be improved drastically, and social security laws need to apply to everyone, ideally without wage barriers.
- The proposed Code on Wages and the Labour Code on Social Security are steps in the right direction.

Q) It is important for India to widen its direct tax net. Analyze. (250 words)

Livemint

Why this question
It has been repeatedly highlighted that India has one of the lowest direct tax payer to population ratio. In this context it is essential to discuss why there is a need to increase that base and what are the benefits it will accrue.

**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 deeper into the issue and bring out as to why there is a need for India to widen its direct tax base- what benefits it will provide and why it is important.

**Structure of the answer**

**Introduction**- Write a few introductory lines about the need to widen direct tax base. E.g to end extreme poverty sustainably, the states governing the world’s poor need to be strengthened such that they are both accountable to the needs of the poor and have the capacity to meet those needs etc

**Body**-

Discuss why there is the need of fiscal deepening of India and also discuss its consequences. E.g

- India is trapped between the very poor countries that get a lot of foreign aid and the wealthy ones with very strong tax collections;
- the tax collected for every unit of economic output in India was minuscule compared to other countries;
- the Indian state will be in a better position to perform its key duties without running into repeated fiscal crises;
- higher direct taxes could provide space for significant cuts in indirect taxes such as the goods and services tax, which in effect means a shift from a regressive to a progressive tax system;
- a widening tax pool because of formalization means the current perverse system in which efficient firms are taxed at a high rate because inefficient firms manage to slip outside the tax system will end etc.

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

**Background:**

- In the last few years there is a continuous increase in the number of tax filers. The direct tax collection in fiscal 2018, at 6% of GDP, touched a decadal high.

**Why is it important for India to widen direct tax net :**-

- Better management :-
  - The overall boost to tax collections means that the Indian state will be in a better position to perform its key duties without running into repeated fiscal crises.
  - For developing countries like India, tax is more than just a source of revenue. It not only helps in building up the economy of a country but also makes the government accountable to its taxpayers. From a government’s perspective, it helps in better planning and budgeting of a fiscal year, as the tax revenues are relatively predictable.
  - It is a well settled principle of economics that tax collections help governments to plan their public expenditure better i.e., better education, better healthcare, better roads, basic needs such as food and shelter for most of not for all.
- Higher direct taxes could provide space for significant cuts in indirect taxes such as the goods and services tax, which in effect means a shift from a regressive to a progressive tax system.
- A widening tax pool because of formalization means the current system in which efficient firms are taxed at a high rate because inefficient firms manage to slip outside the tax system will end.
• Helps in infrastructure:-
  o The **advent of Goods and Services Tax (GST)** will help **formalise the economy** and have a positive spillover effect on income tax compliance. That’s critical to improve the government’s ability to fund social and physical infrastructure.
  o Sustained improvement in tax collections translate into improved infrastructure, social services and quality of life.
  o A steep rise in number of tax filers and eventual increase in tax revenue results in greater spending by the government and a rise in government expenditure is often directly linked with the health of macro-economic variables like infrastructure, employment, defense etc.
• Voluntary tax compliances by the taxpayers pave the way for the government to relax its anti-evasion measures and even trim the income tax rates, which again proves to be beneficial for the taxpayers and builds a sense of confidence in the government.
• Better socio-economic fabric leads to decrease in crime rates and productive communities leading to overall prosperity and economic growth.
• The Indian state will be in a better position to perform its key duties without running into repeated fiscal crises.

Q) As one of the youngest countries in the world, going forward employment is going to be a major problem for the state. Analyze the issue and suggest how can we create employment opportunities for so many additions to the Labour Force? (250 words)

**Livemint**

**Why this question**

The article discusses the challenges related to employment that India is likely to face on account of its demography in the years to come and how India can successfully deal with this challenge. Hence this question would help us in preparing issues related to employment.

**Key demand of the question**

The question expects us to discuss how changing demography provides both opportunity and challenges with respect to employment and labour force participation. We need to bring out the issue and thereafter discuss how the challenges with respect to employment can be managed.

**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 India is a young country and unfortunately for India job creation is not keeping pace with new addition to the Labour Force.

**Body**

Discuss the issues arising out of the young demography of the country –

- Social tensions are rising as “two Indias” emerge from a demographic perspective. The north and east have high fertility rates, low labour force participation and high marginal employment. In contrast, the west and south have low fertility rates and, in some instances, is showing shortage of manpower. This is resulting in interstate migration, creating social tensions.

- The north and east are likely to experience increasing social strife when a digitally alive population fails to fulfil their aspiration.

- Creating large-scale local employment will be essential for inclusive growth, and is a key agenda for the country over the coming decade.

Discuss the issues with our current strategy of generating employment and how the situation can be improved.
Challenges to job creation are automation, labour laws serving as an entry barrier, challenges faced by MSME sector etc

Employment generation requires district-level effort for job creation that link local entrepreneurs to markets, with solutions that use local resources.

Discuss the alternative in detail

Conclusion – Emphasize on the importance of the task at hand and discuss 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. While China’s spectacular growth has already benefited from a demographic dividend, India is yet to do so.

Why employment is going to be a major problem for India:-

- Low standards of education is harmful for India’s demographic dividend:-
  - The focus on rote learning and lack of creativity in education leads to inefficient workforce graduating from colleges which do not meet the requirements of the industry.
  - Many youngsters are clueless about their strengths and the career they should pursue. Inability to choose the right course impacts their career adversely.
  - India is a culture focused on academic learning and professional qualifications. But today, due to volatile nature of the business environment, formal educational qualifications are not enough.
  - India is home to the world’s largest concentration of illiterate people in the world. It has made gains in human development, but challenges remain, including big barriers to secondary schooling, low-quality public services, and gender discrimination.

- Lack of unemployment :
  - According to the International Labour Organisation, in 2016, the global unemployment rate for youth stood at 13.1%. Data by the Labour Bureau suggest that, during that period, India was on par with the global average i.e., 13.2% of those between 18 and 29 years of age who were seeking a job in 2015-2016 remained unemployed.
  - Growth benefit of a demographic dividend is not automatic. A lot depends on whether the bulge in working population can be trained, and enough jobs created to employ the 10 million more people who will join the labour force every year.
  - There is mounting concern that future growth could turn out to be jobless due to de-industrialization, de-globalization, and the fourth industrial revolution and technological progress.
  - While digital technologies may enable the creation of new products and more productive jobs, they may also substitute existing jobs. India may not be able to take advantage of these opportunities, due to a low human capital base and lack of skills.
  - Lack of jobs combined with a demographic dividend will increase the share of the population that is dependent on the working population. This will increase the economic insecurity of the elderly, as there will be fewer people generating wealth.

- How lack of skill is detrimental to exploiting India’s demographic dividend leading to unemployment :
  - 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.
  - Though recent initiatives such as “Skill India Mission” aim to train and create an employable skilled talent pool of 500 million people by 2020, there still is a long way to go.

- The north and east have high fertility rates, low labour force participation and high marginal employment. In contrast, the west and south have low fertility rates and, in some instances, is showing shortage of manpower. This is resulting in interstate migration, creating social tensions.

How to create employment opportunities:-

- Indian companies have to work with high schools and colleges to upgrade the current education system with the latest technology and know-how.
- There is a need to invest in research and analysis which will help build relevant training modules and syllabi as per the changing industry requirements.
- The process of guiding youngsters along the right career path should begin early at school.

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Q) Having a standard GST rate for majority of goods will make GST much simpler and take it closer to the idea of one nation, one tax. Critically analyze. (250 words)

Why this question
The article discusses the recent decision by GST council to prune tax rates on various items and the announcement of the vision of our PM to have 99% of goods in a single tax slab. The idea of having a single rate for majority of goods was one of the initial promises of GST reform. The idea, however, needs to be analyzed in depth to understand its implications.

Key demand of the question
The question expects us to bring out the vision of having a standard GST rate, highlight the steps taken off late to achieve this and the pros and cons of such a measure. Finally, we have to provide a fair and balanced conclusion and discuss the way forward.

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 the recent step of the GST council and the vision of PM.

Body
• Discuss that GST was initially promoted as one nation, one tax, and one market. Thereafter, GST council decided to have multiple rates to take care of revenue losses, make indirect taxes more equitable and progressive etc
• Analyze the advantages offered by having a standard tax rate such as ease of tax administration, simplified taxation structure etc
• Discuss the issues that a standard rate might lead to – concerns related to revenue losses of the state, make the tax less progressive etc.

• Discuss how such issues can be resolved such as through center’s assurance to state regarding funds transfer, having demerit and luxury goods in higher tax bracket etc.

**Conclusion** – Give a fair and balanced opinion on the need for a standard GST rate and discuss the way forward.

**Background** :-
• The Goods and Services Tax (GST) Council recently reduced tax rates on 22 items, of which seven were from the highest slab of 28%.
• GST was initially promoted as one nation, one tax, and one market. Thereafter, GST council decided to have multiple rates to take care of revenue losses, make indirect taxes more equitable and progressive etc.

**Issues with single standard GST rate :-**
• Standard rate might lead to concerns related to revenue losses of the state.
• Makes the tax less progressive as it treats rich and poor in same way. A single GST rate structure in India would have made an apt case for ‘equality’ in taxes, but would have failed on the grounds of ‘equity’.
• The revenues loss prospects under multiple slabs will be much less as opposed to the single rate,

**Advantages offered by having a standard tax rate :-**
• Ease of tax administration
  o Would make GST even more simpler to enforce and comply

• Simplified taxation structure.
• Stability in tax regime as it may not be revised frequently.
• Helpful in making more accurate estimation from tax collection.

**How such issues can be resolved :-**
• Centre needs to give assurance to states regarding funds transfer
• A simpler tax filing regime, fewer slabs and a broader tax base are some things the government needs to address in the year ahead.
• There are many goods that are still outside the GST net, which comes in the way of seamless flow of input tax credit. Key items outside its ambit are electricity, alcohol, petroleum goods and real estate. This aspect need to be looked into.

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

Q) In view of some of the recent steps taken by the government, critically examine whether the government is micromanaging startups and e-commerce players? (250 words)

**The hindu**

**Why this question**

*The article delves deep into some of the recent steps taken by the government and its agencies with respect to start ups and e-commerce players. The key question here is whether these steps amount to micromanagement on the part of the government and will negatively affect startups and e-commerce players. The question expects you to form an opinion on these issues.*

**Key demand of the question**

*The question expects us to first explain the step taken by the government with respect to startups and e-commerce players and thereafter, examine the pros and cons of it. We need to discuss whether these steps are required in order to prevent money laundering and protecting domestic e-Commerce investors or whether these steps amount to micromanagement which would negatively impact these sectors. We need to provide a fair and balanced conclusion and discuss the way forward.*

**Directive word**

*Critically 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. 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** – Explain that the government and its agencies have taken certain steps which has had sizeable impact on start ups and e-commerce players.

**Body**

*Explain the recent steps taken by the government*

- start-ups started receiving tax notices under Section 56 (2) (vii, b) of the Income Tax Act, which quickly became known as the ‘angel tax’. Simply put, tax authorities argued that any company that raises capital that is above its fair-market value is actually earning income from that investment. They demanded tax at the maximum marginal rate on the difference between the fair market value (as determined by the taxman and not the investors who actually put in the money) and the price at which the shares were issued.

- in a press note titled ‘Review of foreign direct investment in e-commerce’, the government imposed a fresh set of curbs on e-commerce players. Any entity where an e-commerce firm has an equity stake is now barred from selling on that platform. Any e-commerce entity vendor’s inventory will be deemed to be controlled by the e-commerce player if more than 25% of its purchases are from the latter or related firms. In that case, the e-commerce firm becomes inventory-based, where FDI isn’t allowed.

*Discuss the impact of these steps taken by the government. You need to debate from both sides highlight the pros and cons*

- Overvaluation of startups can indeed be used for money laundering. However, to treat all legitimate venture funding as money laundering and to attempt to tax it will negatively affect the ability of these startups to raise capital especially in their formative years etc

**Conclusion** – give a fair and balanced opinion based on all the arguments made in your answer and discuss way forward.

**Background :-**

- The Indian e-commerce market is expected to grow to US$ 200 billion by 2026 from US$ 38.5 billion as of Recently government and its agencies have taken certain steps which has had sizeable impact on start ups and e-commerce players.

**Steps taken by the government :-**

- Earlier this year, start-ups started receiving tax notices under Section 56 (2) (vii, b) of the Income Tax Act, which quickly became known as the ‘angel tax’.

- **Any entity where an e-commerce firm has an equity stake is now barred from selling on that platform.**

- Any e-commerce entity vendor’s inventory will be deemed to be controlled by the e-commerce player if more than 25% of its purchases are from the latter or related firms. In that case, the e-commerce firm becomes inventory-based, where FDI isn’t allowed.

- The government also introduced a **sunset clause on differential pricing** and went so far as to disallow special ‘exclusive’ marketing deals with manufacturers for products launched exclusively on an e-commerce platform.

- The policy also **prohibits ecommerce platforms from giving any preferential treatment to any supplier.**

- Ecommerce marketplaces or entities in which they have direct or indirect equity participation or shared control have to provide services to vendors on the platform at arm’s length and in a fair and non-discriminatory manner.

**Government’s monitoring is impacting e-commerce players and Startups adversely :-**

- These measures are likely to **kill investor interest in Indian start-ups** and effectively choke the e-commerce industry.

- **Cashbacks, exclusive sales, brand launches, preferential services or programmes such as Amazon Prime and Flipkart Plus could run into difficulties** under the new dispensation that seeks to ensure that these platforms are truly impartial marketplaces.

- Entities such as **Cloudtail**, in which Amazon has a stake, will **likely not be able to sell on the platform.**

- Deep discounts may disappear for customers and big online sales may lose allure.

- Some of the changes are prescriptive and can be difficult to monitor, especially for small and mid-size ecommerce players.
The move should put the exclusive partnerships with different brands in trouble and impact their overall sales and turnover.

This move could potentially impact many smartphone and electronic brands that work exclusively with different e-commerce companies.

Overvaluation of startups can indeed be used for money laundering. However, to treat all legitimate venture funding as money laundering and to attempt to tax it will negatively affect the ability of these startups to raise capital especially in their formative years etc.

No:

- The move should mollify brick-and-mortar retailers, which have had a longstanding grievance against ecommerce sites for offering discounts to win over customers.
- This policy changes will create a fair market competition and will provide a level playing field for one and all to adopt e-commerce as another business model.
- Both offline and online traders will now be able to sell their products on E-commerce platforms in a transparent manner.

Way forward:

- There is a need for a regulatory authority to ensure the policies are strictly implemented.
- Also multiple stakeholders opinion need to be considered before the implementation of such policy.

**Topic: Inclusive growth and issues arising from it.**

Q) The conversation on raising farmer income needs to embrace non-farm diversification. Examine, with examples. (250 words)

**Why this question**

*The government has an objective of doubling farmers’ income by 2022. However farming distress is worsening and there are not much hopes in this regard. Therefore it is vital to discuss as to how farmers’ income can be doubled by analyzing the role of non-farm diversification.*

**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 delve deeper into the agricultural crisis in India and bring out the need for non-farm diversification so as to increase the farmers’ income.*

**Structure of the answer**

**Introduction-**

*Write a few introductory lines about the issues plaguing the agricultural sector- small and marginal landholdings, lack of access to agricultural credit, environmental degradation, low value addition etc, which in turn affect the agricultural income.*

**Body-**

*Bring out the need for non-farm diversification. E.g A recent survey by the National Bank for Agriculture and Rural Development (All India Rural Financial Inclusion Survey) shows that the average monthly income of rural households is ₹8,059, with agricultural households deriving only 43% of their income from agriculture; most of it is from providing daily wage labour and government jobs; The government has sought to double farmer income by raising minimum support prices, but such initiatives would apply directly only to 48% of rural India, with non-agricultural households being left behind; Diversification, away from marginal farming, helps to overcome land constraint to income growth, while allowing farmers to cope with exogenous shocks through additional income. In some cases, it ‘even allows them to reinvest in productivity enhancing agricultural technologies’ etc.*
Discuss the examples of non farm diversification. E.g discuss the importance of livestock and improving the conditions of construction workers, the two areas which employ agricultural families/ workers on a large scale.

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

Background:-
- Agriculture is the primary source of livelihood for about 58 per cent of India’s population. Gross Value Added by agriculture, forestry and fishing is estimated at Rs 17.67 trillion. Yet Indian agriculture faces multiple issues like small and marginal landholdings, lack of access to agricultural credit, environmental degradation, low value addition etc, which in turn affect the agricultural income.

Why there is a need for non form diversification:-
- Recent survey by the National Bank for Agriculture and Rural Development (All India Rural Financial Inclusion Survey) shows that the average monthly income of rural households is Rs. 8,059, with agricultural households deriving only 43% of their income from agriculture. Most of it is from providing daily wage labour and government jobs.
- The government has sought to double farmer income by raising minimum support prices, but such initiatives would apply directly only to 48% of rural India, with non-agricultural households being left behind
- Diversification, away from marginal farming, helps to overcome land constraint to income growth, while allowing farmers to cope with exogenous shocks through additional income.
- It even allows them to reinvest in productivity enhancing agricultural technologies
- Conversation on raising farmer income needs to embrace non-farm diversification, an important pathway for empowering landless labourers and marginal farmers.

How farmers income can be doubled by analyzing the role of non-farm diversification :-

Livestock sector:-
- Livestock sector can offer significant opportunities for bolstering non-farm income. The current breeding policy needs to be revamped.
- A national breeding policy is also needed to upgrade the best performing indigenous breeds. Buffalo breeding ought to be given more attention, while poultry breeding should be focussed on conservation.
- State governments should be encouraged to participate in national breeding policy implementation, creating an environment for competition among alternative suppliers of artificial insemination.
- Consensus must be built among breeders to develop indigenous breeds.
- Geographical information system-based analysis must be utilised to map production systems. Private investment must also be encouraged.
- The government needs to create better incentive structures for investment in livestock in the States that are lagging while harmonising rules, regulations and regulatory authorities across States.
- State governments should sponsor research and assessment of the market, along with highlighting investment potential.

Improving the conditions of migrant workers in the construction sector requires a multi-pronged approach.
- India has to enable migrant workers to get deserved access to various government (Central and State) schemes, despite the lack of identity proof.
- Access to Anganwadi facilities should be provided regardless of their identity documents.
- While multiple laws exist for the welfare of construction workers, compliance is abysmal. The penalties for non-compliance have to be increased to a significant fraction of the construction cost, payable by the builder.
- Registration of workers with the Welfare Board should be made mandatory and be the responsibility of the contractor and the builder.
- The registration cards should be linked to their Jan-Dhan accounts, and transfer of payments on a periodic basis be made directly to their accounts.
- In order to improve the condition of women, strict anti-harassment laws should be implemented. Creche facilities at construction sites should be provided to also ensure that children are not neglected

India’s rural development policies should increasingly focus on developing markets, infrastructure and institutions that can help sectors such as livestock and construction growth. While India’s post-Independence rural policy has primarily been about driving people away from agriculture and towards cities, India must now incentivise job creation at their doorstep.
Q) In recent years, we have seen a lot of farmer’s protests demanding loan waivers. Discuss the effectiveness of loan waivers in solving farmer’s issues? (250 words)

Why this question

Loan waiver has been a very frequent demand by the farmers in India including in the current protests in Delhi. Despite several experts advising against it, the political capital gained through such an exercise makes such waivers a politically convenient tool. This question therefore seeks to help you prepare the finer points of the loan waiver issue.

Key demand of the question

The question expects you to first highlight the frequent demand for loan waivers and thereafter, bring out the pros and cons of it in terms of improving the status of farmers. 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 – Highlight that loan waiver is a very frequent demand raised by farmers.

Body –

Explain why loan waivers are frequently demanded by farmers. Discuss the pros and cons of loan waivers.

- This idea seems to be bad politics as well as bad economics because it may win the political party some votes but is not sustainable in the long run. Waiver of loan is a plain action where the credit climate is hampered. It will be counter productive not only for the state but for the entire credit market. It is a sub-optimal policy. A good policy would have been a set of things which were suggested by the Swaminathan Committee Report. On an average, the income of farmers is so low that their daily survival becomes a problem. Farm loan waivers is becoming a necessity now because these deep rooted problems are not being addressed related to farmers and their sufferings cannot be ignored. As per the NSSO’s 59th survey, about 40% of farmers dislike farming and would quit if they can therefore, finding of short-term and long-term solutions can severely impact food security.

Conclusion – Give your opinion on farm loan waivers and discuss the way forward. farm loan waivers act only as a temporary solution to the problems of farmers and it will not make them free from issues like decreasing farm income, debt trap or crop failures. The problems need creative engagement through which the surplus workers in the farming sector can be taken away to more productive sectors through education and skilling thereby making farming more profitable and sustainable for all stakeholders.

Background:-

- Agriculture currently contributes just about 15% to the national output and about 50% of the population directly or indirectly depends on it for employment.
- Farmer distress is a real and pressing problem, as evidenced by the protests currently taking place in various parts of the country.
- In the recent past, widespread demands have been heard for farm loan waivers amid continuing agrarian distress.
Why farm waivers are important:-

- Agriculture in India has been facing many issues like fragmented land holding, depleting water table levels, deteriorating soil quality, rising input costs, low productivity.
- Output prices may not be remunerative. Farmers are often forced to borrow to manage expenses.
- Indebtedness is a key reason for the many farmer suicides in the country.
- Loan waivers provide some relief to farmers in such situations.
- Farm loan waivers are at best a temporary solution.
- Farm loan waivers is becoming a necessity now because these deep rooted problems are not being addressed related to farmers and their sufferings cannot be ignored.

Negative implications

- Less long term impact:-
  - Loan waivers might help the government buy peace with farmers in the short run, but they are unlikely to change much on the ground.
  - Research shows that loan waivers do not result in greater investment or better labour market outcomes.

- Experience shows failure:-
  - No improvement in farm productivity for households qualifying for loan waiver indicates a failure of the programme to achieve its desired goals.

- Loan waivers can also affect the flow of credit:-
  - It creates distortions in the credit market, as repeated waivers incentivise default.
  - They can not only increase the deficit and interest burden, but also limit the ability of the government to undertake capital expenditure. Lower capital expenditure affects longer-term growth prospects, including that of the agriculture sector.

- Debt waiver in case of default, farmers are likely to reduce productive investments and spend more on consumption.

- Providing loan waivers in some states promote farmers from other states also demanding farm loan waiver.

- Due to farm loan waivers, overall borrowings of the government would go up and that can lead to crowding out private borrowers and increase the cost of borrowings for others.

- This idea seems to be bad politics as well as bad economics because it may win the political party some votes but is not sustainable in the long run. Waiver of loan is a plain action where the credit climate is hampered. It will be counter productive not only for the state but for the entire credit market.

- Farm loan waivers may act as a temporary solution and can prove to be moral hazard in future because those farmers who are able to pay their loans might not pay it expecting a waiver.

- Affects banking system:-
  - The banks may become wary in providing loans to the poor farmers who actually need it. These waivers will add to the NPAs of the banks and it will cost taxpayers.

- The real benefit to small and marginal farmers will not come from loan waiver programmes.
  - This is because only 15% of small farmers have access to institutional credit (formal credit), and loan waiver schemes typically cater to farmers who have availed formal loans
  - Quite often small farmers use the money saved from loan waivers for consumption purposes instead of using it as an investment to augment farm productivity.
  - In the year following loan waivers, small farmers lose out on three counts:
    - lower access to formal loans, falling agricultural revenue because of higher informal loan cost, and falling agricultural productivity.
    - This has a wider implication on income distribution.

Solutions that go beyond loan waivers are:-

- As a long term measure, agriculture should be made sustainable by:
  - Reducing inefficiencies and increasing income
  - Providing protection through insurance schemes
  - Better risk management and more efficient agricultural markets
  - Subsidies should be directed towards the farmers not the companies.
  - Incentivise people to move out of agriculture by expansion in the manufacturing sector.
  - Apart from efforts to increase yields, land leasing should be strengthened, which will not only allow consolidation, but will also give an opportunity to unwilling farmers to exit the sector.
  - Adequate safeguards need to be built in order to protect farmers against both production and price risks.
  - Central and state governments will need to work together in order to enhance the viability of the sector.
- Investment in practically every aspect of the farm economy, including irrigation, agricultural research, storage and marketing.
- Require policy decisions in other areas like FDI in multi-brand retail, which would lay the groundwork for cold-chain storage infrastructure that support the sector.
- Formulate eligibility rules for loan waiver that depend on historical loan-utilization, investment, and repayment patterns.
- Alternative policy intervention is the agricultural insurance.
- The money waived could be invested for creating infrastructure that makes farmers independent of cartel of traders and help them to reap maximum economic benefit of their produce.
- Considering loan waiver only up to a specified threshold limit (mostly Rs 1 lakh), and any amount over that will have to be paid so that there may not be a significant worsening of credit culture.

**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) Discuss how the recently released agriculture export policy is a welcome step in the direction of doubling farmers’ income by 2022. (250 words)**

**Indian express**

**Why this question**

Doubling farmers’ income by 2022 is not an easy task but at the same time is absolutely essential, given the precarious condition of most of the farmers in India. In this context it is important to discuss the agriculture export policy which has been recently released in line with the government’s commitment to double the farmers’ income by 2022.

**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 recently released agriculture export policy, its salient provisions and how it is a positive step in the direction of doubling farmers’ income by 2022.

**Structure of the answer**

**Introduction**– write a few introductory lines about the New agriculture export policy. E.g It will boost exports of agricultural commodities such as tea, coffee and rice and increase the country’s share in global agri-trade etc.

**Body**-

Discuss about the salient provisions of the policy and how it will help in doubling farmers’ income by 2022. E.g The policy would focus on all aspects of agricultural exports including modernising infrastructure, standardisation of products, streamlining regulations, curtailing knee-jerk decisions, and focusing on research and development activities; It will also seek to remove all kinds of export restrictions on organic products, the implementation of the policy will have an estimated financial implication of over Rs 1,400 crore etc

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

**Background :-**

- Union cabinet approved an export policy for agriculture, lifting all restrictions on organic and processed food, to help the government’s efforts to double farmers income by 2022.
- In order to provide an impetus to agricultural exports, the Government has come out with a comprehensive “Agriculture Export Policy” aimed at doubling the agricultural exports and integrating Indian farmers and agricultural products with the global value chains.
Objectives :-

- **Objectives of the Agriculture Export Policy are as under :-**
  - To double agricultural exports from present US$ 30+Billion to US$ 60+ Billion by 2022 and reach US$ 100 Billion in the next few years thereafter, with a stable trade policy regime.
  - To diversify export basket, destinations and boost high value and value added agricultural exports including focus on perishables.
  - To promote novel, indigenous, organic, ethnic, traditional and non-traditional Agri products exports.
  - To provide an institutional mechanism for pursuing market access, tackling barriers and deal with sanitary and phyto-sanitary issues.
  - To strive to double India’s share in world agri exports by integrating with global value chain at the earliest.
  - Enable farmers to get benefit of export opportunities in overseas market.

The recommendations in the Agriculture Export Policy are in two categories :-

- **Strategic**
- **Operational**

  - **Strategic**: It includes
    - (a) Policy measures
    - (b) Infrastructure and logistics support
    - (c) Holistic approach to boost exports
    - (d) Greater involvement of State Governments in agri exports

  - **Operational**: It includes
    - (a) Focus on Clusters
    - (b) Promoting value added exports
    - (c) Marketing and promotion of “Brand India”
    - (d) Attract private investments into production and processing
    - (e) Establishment of strong quality regimen
    - (f) Research & Development
    - (g) Miscellaneous

**Key features of agricultural export policy :-**

- Agriculture Export Policy, 2018 seeks to double farm exports to $60 billion by 2022 from $30 billion last year.
- 1,400 crore to set up specialised clusters in different states for different produce to push exports.

**Impact :-**

- The Policy will double the agricultural exports and integrate Indian farmers and agricultural products with the global value chains. Exports of agricultural products would play a crucial role in **achieving the goal of doubling farmers income by 2022**.
- The policy will **promote organic, ethnic and indigenous products**.
- The policy seeks to diversify exports by products and destination and will focus on high value-added farm produce and perishables. At present, rice, wheat and marine products account for about 52% of the total farm exports.
  - It will boost exports of agricultural commodities such as tea, coffee and rice and increase the country’s share in global agri-trade.
- **Dedicated clusters could be set up** for mangoes, pomegranate, bananas, grapes, tea, coffee, turmeric, and marine products, among others. The government will set up ‘Brand India’ to promote exports and establish as strong quality regime for exports, and states will be extensively involved.
- The policy that has strategic and operational elements will **also seek to attract private investment into production and processing**.
- It will harness export potential of Indian agriculture through suitable policy instruments to make India global power in agriculture and raise farmers income.
- Considering the sanitary and phyto-sanitary issues that farm exports usually run into with many countries, the policy will provide an institutional mechanism to pursue market access and tackle barriers.
- The policy has been designed with extensive consultations with states that have agreed to remove a lot of restrictions including mandi taxes and APMC (Agricultural Produce Market Committee) related conditions.
- Policy would focus on all aspects of agricultural exports including modernising infrastructure, standardisation of products, streamlining regulations, curtailing knee-jerk decisions, and focusing on research and development activities.
- It will also seek to remove all kinds of export restrictions on organic products, the minister added.
Q) Thousands of farmers from different parts of India marched to Delhi on November 29-30 to register their protest. Critically examine the effectiveness of AASHA in resolving farmers distress? What do you suggest are the reforms required to resolve rural distress? (250 words)

Financial express

Why this question

Agrarian distress is an important issue for mains and has been in news continuously since last year. The article explains the major demands of the farmers and analyzes the government response and what it would mean. The issue of farmers not getting adequate price for their produce is important and in this context, ASHA needs to be prepared.

Key demand of the question

First the question expects us to explain the reasons and demands of the farmers who were protesting in Delhi. Thereafter, we need to highlight that farmers are not getting adequate price for their produce. In this context, explain ASHA and analyze its achievement in resolving the issue of inadequate prices for farm produce. Finally, we need to highlight the reforms required.

Directive word

Critically 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. 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 – Explain about the poor status of farmers and the rise of farmer protests.

Body

- Discuss the demands of the recently held protests in Delhi – debate in the Parliament to discuss farm distress; one-time loan waiver; and raising minimum support prices (MSPs) to 50% above comprehensive cost (cost C2) of production, and making MSPs legally binding on private traders
- Explain about AASHA and critically examine its impact – PM’s AASHA (Annadata Aay Sanrakshan Abhiyan) tried to give support through three sub-schemes, Price Support Scheme, Price Deficiency Payment (PDP) and Private Procurement and Stockist Scheme. However, none of the states have implemented the scheme. Even MP, which had piloted the PDP scheme in kharif 2017, has discontinued it.
- Discuss about the reforms required – India needs massive reforms in its agri-markets, from reforming APMC markets to abolishing the Essential Commodities Act, and abolishing all export restrictions. Encouraging contract farming, allowing private agri-markets in competition with APMC markets, capping commissions and fees to not more than 2% for any commodity at any place in India, opening and expanding futures trading, a negotiable warehouse receipt system, e-NAM, with due systems of assaying, grading, delivery and dispute settlement mechanisms, are some of the necessary steps needed urgently.

Conclusion – Emphasize on the plight of farmers and discuss the way forward.

Background :-

- India saw an almost eight-fold rise in agrarian riots between 2014 and 2016, data from the National Crime Records Bureau (NCRB) shows. The protests in Delhi are addition to this instances faced by farmers.

PM Annadata Aay Sanrakshan Abhiyan :-

- Giving a major boost to the pro-farmer initiatives of the Government and in keeping with its commitment and dedication for the Annadata, the Union Cabinet has approved a new Umbrella Scheme Pradhan Mantri Annadata Aay SanraksHan Abhiyan (PM-AASHA).
- The Scheme is aimed at ensuring remunerative prices to the farmers for their produce as announced in the Union Budget for 2018.
SECURE SYNOPSIS

Components of PM-AASHA:

- The new Umbrella Scheme includes the mechanism of ensuring remunerative prices to the farmers and is comprised of
  
  **Price Support Scheme (PSS)**
  - Under the PSS, physical procurement of pulses, oilseeds, and copra will be done by Central Nodal Agencies.
  - Besides, NAFED and Food Cooperation of India will also take up procurement of crops under PSS.
  - The expenditure and losses due to procurement will be borne by the Centre.

  **Price Deficiency Payment Scheme (PDPS)**
  - Under the PDPS, the Centre proposes to cover all oilseeds.
  - The difference between the MSP and actual selling/modal price will be directly paid into the farmer’s bank account.
  - Farmers who sell their crops in recognized mandis within the notified period can benefit from it.

  **Pilot of Private Procurement and Stockist Scheme (PPPS):**
  - In the case of oilseeds, States will have the option to roll out PPSSs in select districts.
  - Under this, a private player can procure crops at MSP when market prices drop below MSP.
  - The private player will then be compensated through a service charge up to a maximum of 15% of the MSP.

How can AASHA resolve farmer’s distress:

- It will help to protect farmers income which is expected to go long way towards the welfare of farmers. It is expected that the increase in MSP will be translated to farmer’s income by way of robust procurement mechanism in coordination with the State Governments.

- The three components mentioned in the scheme will complement the existing schemes of the Department of Food and Public Distribution.

- The AASHA scheme thus tries to address the gaps in the MSP system and give better returns.
  - AASHA points to an innovative, MSP-plus approach to the problem of non-remunerative prices.
  - The different components would cover the gaps in the procurement and compensation mechanism for crops.

- It also promises to plug the holes in the procurement system.

- It will also help revive the rural economy by assuring better income to farmers.

- With better prices across crops, the new scheme may ensure crop diversification and reduce the stress on soil and water.

- If effectively implemented, the AASHA scheme will result in savings for the Centre.

What are the challenges?

- PDPS:
  - Ground level checks revealed that traders plotted with each other and depressed the prices at mandis.
  - They forced farmers to sell at lower prices and pocketed the compensation from the government.

- PSS:
  - Many small and marginal farmers are unable to sell their produce under the Bhavantar scheme. They face the double burden of lowered price and no compensation.

- PPSS:
  - The PPPS may work, but private procurers may be wary of the Centre’s delayed payments.

Reforms required to resolve rural distress:

- To ensure that AASHA works, the Centre first needs to break the trader lobbies at mandis. This could be done by widening the competition by inter-linking mandis. e-NAM promises to do so, but, States need to be proactive in undertaking regulatory reforms.
• India needs massive reforms in its agri-markets, from reforming APMC markets to abolishing the Essential Commodities Act, and abolishing all export restrictions.
• Encouraging contract farming, allowing private agri-markets in competition with APMC markets, capping commissions and fees to not more than 2% for any commodity at any place in India, opening and expanding futures trading, a negotiable warehouse receipt system, e-NAM, with due systems of assaying, grading, delivery and dispute settlement mechanisms, are some of the necessary steps needed urgently.
• Once this is done, major investments need to follow in improving the functioning of markets and building efficient value chains, especially of perishables. This can be done through the PPP mode, creating millions of jobs.

Q) Critically analyze whether it is prudent to go the GM way for solution to the hunger problem? (250 words)

The hindu

Why this question

The article discusses the debate with respect to genetic modified crops. GM crops are intensely researched and debated and each time there is a new GM crop being introduced the debate intensifies. Hence this question would enable you to form your perspective on GM crops.

Key demand of the question

The question expects us to discuss the debate with respect to GM crops, highlight the pros and cons and provide a fair and balanced opinion with respect to the future of GM crops.

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 – Give an overview of the debate.

Body – Discuss the pros and cons of GM crops. In pros, we have to bring out facts such as increased productivity, pest resistance etc. Discuss cons such as the fact that pests develop resistance etc. Highlight the experience of India with crops such as Bt cotton, Bt brinjal etc. Discuss whether the regulatory framework in India is adequate to deal with the cons of GM crops.

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

Background:-
• Despite India’s law barring genetically modified (GM) foods from being produced or sold in the country without government approval, a study by Centre for Science and Environment (CSE) found that Indian markets are inundated with GM foods.

GM is a solution to hunger problem:-
• Data from a large number of peer-reviewed publications have shown that, on average, GM technology adoption has reduced pesticide use by 37%, increased crop yield by 22%, and increased farmer profits by 68%.
• Data from a billion animals fed on GM corn have not indicated any health hazards. Those in the Americas and elsewhere consuming Bt corn or soybean for over 15 years have not reported any health issues.
• Genetically modified (GM) crops can withstand pests and droughts. Genetic modification in crops involves altering a seed’s DNA in order to increase its resistance to pests and insects. These changes can mean a huge boost to productivity and overall food supply.
• Adopting technology that will lead to higher crop productivity is essential to feeding the growing Indian population.
• Higher crop yields, reduced farm costs, increased farm profit and improvement in health and the environment are some of the benefits of introducing GM crops.
There are some concerns as well:-

- GM food involves taking genes (DNA) from different organisms and inserting them in food crops.
  - There are concerns that this ‘foreign’ DNA through Genetically Modified products may lead to risks such as toxicity, allergic reactions, and nutritional and unintended impact.
- **It costs people’s health and our national food and health sovereignty.**
  - The Food Safety and Standards Authority of India [FSSAI], the apex food regulator, has failed to curb the illegal sales of GM food.
    - Its draft regulations on GM food labelling are weak and impractical to implement.
- **Lack of clarity:**
  - It is clear that the technology of genetic engineering is an evolving one and there is much, especially on its impact on human health and environment that is yet to be understood properly. The scientific community itself seems uncertain about this.
- **There is also a potential for pests to evolve resistance** to the toxins produced by GM crops and the risk of these toxins affecting nontarget organisms. There is also the danger of unintentionally introducing allergens and other anti-nutrition factors in foods.

**Way forward:-**

- To curb the large-scale illegal presence and sale of GM-foods, FSSAI must set necessary approval processes and make stringent labelling standards.
- Set up laboratories to check for GM foods.
- Take action against those responsible for bringing such foods illegally into the market.
- Screening of all foods made from or likely containing GM ingredients in the country.
- FSSAI should setup systems and enforce GM screening.

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

**Q) Increased incidence of heat waves across the world is a cause of concern for all countries especially India. Analyze. (250 words)**

**The hindu**

**Why this question**

*Episodes of Heat waves have increased dramatically in the wake of Climate change. India is no immune to the fact and faces more difficult challenges on account of various inherent socioeconomic factors which needs to be deliberated upon.*

**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 probe deeper into the increasing episodes of heatwaves, briefly discuss the causes and discuss in detail what are the socioeconomic costs inflicted by heat waves, which make them a cause of worry for India.

**Structure of the answer**

**Introduction—**

write a few introductory lines about the recent report highlighting the increased incidence of heat waves across the world including India.

**Body—**

- Briefly discuss the meaning of a heat wave and reasons behind increased incidence of heat waves. E.g mention the IMD definition of heat wave; mention the increasing anthropogenic emissions and climate change as the reasons behind the phenomenon etc.
- Discuss the socioeconomic costs associated with heatwaves especially in case of India. E.g
Conclusion—based on your discussion, form a fair and a balanced conclusion on the given issue.

Background:-
- According to a study by the Indian Institute of Technology (IIT) Gandhinagar, the frequency of severe heat waves in India will increase 30-fold by 2100 under a 2°C warming scenario.

Heat waves are a concern to the world:-
- Since 1990, every region of the globe has become steadily more vulnerable to extreme increases of heat.
- Increased exposure to heat can cause
  - A decrease in labour output
  - Burden health systems ill-equipped to cope with the effects of heat stress
  - Promote the spread of diseases like cholera and dengue fever across endemic areas.

Reasons why heat waves are an increasing concern for India are:-
- India experienced an additional 40 million heatwave exposure events in 2016 as compared to 2012, raising concerns over a “dangerous surge” in negative health impacts.
- Over the last two decades, there has been a “marked increase” in the duration of heatwaves in India, as well as the numbers of Indians exposed to heatwaves.
- Magnified effect of paved and concrete surfaces in urban areas and a lack of tree cover
- Urban heat island effects can make ambient temperatures feel 3 to 4 degrees more than what they are.
- Climate change is expected to cause an increase in the frequency and intensity of heatwaves.
  - Higher daily peak temperatures and longer, more intense heat waves are becomingly increasingly frequent globally due to climate change
- Combination of exceptional heat stress and a predominantly rural population makes India vulnerable to heat waves.
  - Vegetable vendors, cab drivers, construction workers, police personnel, road side kiosk operators and mostly weaker sections of the society have to work in the extreme heat to make their ends meet and are extremely vulnerable to the adverse impacts of heat waves such as dehydration, heat and sun strokes.

Health impact:-
- Heat exposure can lead to heat stress – illnesses which occur as a result of the body’s inability to prevent its temperature rising from beyond a normal range.
- Severe heat stroke can lead to multiple organ failure, seizures, and death.
- Children, the elderly and those with pre-existing morbidities are particularly vulnerable

Labour less:-
- India lost nearly 75 billion hours of labour in 2017 as a result of rising temperatures.
- This made sustained work increasingly difficult and negatively affecting workers’ output.
- The agriculture sector experienced the largest increase in labour loss.

Way forward:-
- Policy intervention and coordination across three sectors health, water and power is necessary.
- Expedite the rollout of the National Action Plan on Climate Change and Health
  - Preventing temperature-related morbidity and mortality could be a key programme under this mission.
- Ensure an adequate supply of water. Timely access to drinking water can help mitigate this escalation.
  - Provision of drinking water within housing premises and indoor toilets.
- Further research using sub-district level data to provide separate indices for urban and rural areas to enable more targeted geographical interventions.
  - Deeper analysis of urban ward-level data to provide intra-city vulnerability patterns.
- Provision of public messaging (radio, TV), mobile phone-based text messages, automated phone calls and alerts.
- Promotion of traditional adaptation practices, such as staying indoors and wearing comfortable clothes.
- Popularisation of simple design features such as shaded windows, underground water storage tanks and insulating housing materials.
- Advance implementation of local Heat Action Plans, plus effective inter-agency coordination is a vital response which the government can deploy in order to protect vulnerable groups. This will require identification of “heat hot spots”, analysis of meteorological data and allocation of resources to crisis-prone areas.
- Other states can follow this:-
  - Ahmedabad Municipal CorpSoration (AMC) has adopted a heat action plan which necessitates measures such as building heat shelters, ensuring availability of water and removing neonatal ICU from the top floor of hospitals. It has helped bring down the impact of heat wave of vulnerable population.

www.insightsonindia.com 39  www.insightsias.com
Q) To hear the call of the Ganga, both political will and ethical responsibility are required. Analyze in the context of recent developments with respect to Ganga river. (250 words)

**Why this question**

Ganga is the largest and one of the most important rivers of India given the population it caters to and the extent of pollution and threats it faces. The govt recently allowed first inland vessel voyage across the river Ganga and it also has put forward a draft NRGB which aims at Ganga rejuvenation. In this context it is essential to look into these happenings and deliberate upon the same.

**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 deeper into the plight of the Ganga river and the recent developments associated with it in order to bring out why there is a need for both political will and ethical responsibility for saving the Ganga river.

**Structure of the answer**

**Introduction**– write a few introductory lines about the recent developments related to the Ganga river. E.g mention the recent inland voyage of PepsiCo container and also mention about the draft National River Ganga Bill 2018 (NRGB).

**Body**-

Discuss briefly about the draft NRGB. E.g It has proposed the setting up of an armed ‘Ganga Protection Corps’, with the powers to arrest offenders who pollute it, to keep the river clean and help in its rejuvenation; The offences and penalties punishable under the draft NRGB include spoiling or defacing ghats or stairs or throwing any “offensive matter” in the river; stone quarrying, commercial fishing without permission, deforesting hill slopes or other sensitive areas, withdrawing groundwater for organised consumption through tube wells or industrial needs, among many others; These offences are punishable with imprisonment up to two years or fine of up to Rs 50,000.

Bring out the lack of political will and ethical responsibility on part of the government and the people to preserve the Ganga river. E.g bring out the deficiencies in the draft bill– like the major issues are building barrages and diverting flow of the river, dredging to make way for inland waterways, hydroelectric projects that impact the flow and massive deforestation destroying the overall ecology. The draft doesn’t mention how these will be tackled etc; Instead of freeing the flow of the river, maintaining its flow regime, monitoring sewage disposal, checking the excess withdrawal of water, saving and increasing the forest cover, and revitalising the water bodies feeding into the rivers, river rejuvenation in most cases has been equated with riverfront development. Thus, it involves concretisation and encroachment of riverbanks and floodplains for commercial activities, and water diverted from other sources to create an impression that the river is still alive etc.

**Conclusion**– based on your discussion, form a fair and a balanced conclusion on the given issue. E.g As long as the river continues to be seen merely as an entity for extraction, its further concretisation and pollution will continue unabated. There is a need for the government as well as the civil society to take the responsibility and tackle the problem of river pollution upfront etc.

**Background:**-

- According to a map of Ganga river water quality presented by the Central Pollution Control Board (CPCB) to National Green Tribunal (NGT) in August 2018, only five out of 70-odd monitoring stations had water that was fit for drinking and seven for bathing.
- After three decades of efforts to clean the national river, it is a sad state of affairs that the river is not even fit for bathing.
Recent developments :-

- The draft National River Ganga Bill 2018 has proposed the setting up of an armed ‘Ganga Protection Corps’, with the powers to arrest offenders who pollute it, to keep the river clean and help in its rejuvenation.
  - The bill aims to rejuvenate Ganga to its pristine stage and ensure its uninterrupted flow.
  - The bill says the Centre will take control of management, regulation and development of the Ganga, and gives it the status of a national river.

- Jal Marg Vikas Project (JMVP)
  - The Jal Marg Vikas Project (JMVP) on National Waterway-1 is being implemented with the financial and technical support of the World Bank.
  - The Project entails development of fairway between Varanasi and Haldia (Phase-I)
  - The project will contribute in bringing down the logistics cost in the country.
  - The project involves channelising the braided river, massive dredging, frequent desilting, and barraging to increase its depth artificially.
  - Significant pollution risks are being ignored.
  - Also ignored is the destruction of the habitats of the aquatic life and livelihoods of the fisherfolk and boatmen.
  - Endangered species like the Ganges river dolphins are being pushed towards extinction.

- PepsiCo consignment in Varanasi
  - PepsiCo moved containers from Kolkata to Varanasi on river Ganga.
  - Ganga does not have the carrying capacity for the navigation of 1,500 tonne vessels.

- Ganga Hariteema Yojana
  - Uttar Pradesh Government has launched Ganga Hariteema Yojana (also known as Ganga Greenery scheme) in 27 districts of the state located on the bank of river Ganga.
  - The scheme aims at enhancing green cover in catchment areas of river Ganga and control land erosion.

Where is government failing :-

- Unsustainable sand mining, encroachments into the river and extraction of groundwater and other resources at increasing rates continues.
- Sand mining and hydropower development in the Ganga has reduced its flow at most places.
- The source of the Ganga’s perenniality, the Himalayas, are increasingly becoming dry, hollowed out, and made fragile.
- Under Namami Gange programme, maintaining an ecological flow is not abided by the project owners.
- Building barrages and diverting flow of the river.
- Dredging to make way for inland water ways.
- Hydroelectric projects that impact the flow.
- Massive deforestation destroying the overall ecology.
- No proper assessment of impacts of the above interventions on the river. This has resulted in further deterioration of the Ganga.
- The state of deteriorating Ganga is also mentioned by CAG, Parliamentary Committee on Ministry of Water Resources, the World Bank, the Central Pollution Control Board, and National Green Tribunal.

Way forward :-

- The Indian government should come out with credible road map, set up pilots, ensure that existing sewage and industrial effluent treatment plants worked as per design, set up decentralised STPs and opt for eco-friendly treatment options. These steps would facilitate reuse of treated waste water.
- Government should take steps to reduce sugarcane cultivation, go for water-saving and yield-enhancing SRI, a method applicable for crops other than rice. All these efforts could have also helped improve the state of flow in the river.
- Government should set up an independent committee to assess the continued usefulness of Farakka barrage. It should make river governance democratic, with clearly defined norms of transparency, participation and accountability.

Q) Examine the adverse impacts caused by heat waves and how India should deal with it ? (250 words)

The hindu
Why this question

The Lancet countdown on health and climate report was released recently. Coming on the eve of the UN climate conference in Katowice, Poland, the report of the Lancet panel for 2018 brings clarity, placing connected issues in perspective for governmental action. At a time, when climate change is having multifaceted impacts, understanding the health impact of climate change as explained in the report is important.

Key demand of the question

The question expects us to first highlight that heat waves have become quite frequent as a result of climate change. Thereafter, we need to examine the adverse socio economic and health impact of heat waves and analyze how India should deal with the 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 – Explain that one of the major fallouts of climate change is persistent heat waves.

Body

Explain the adverse health impact of heat waves

- There has been increase in frequency, duration and intensity of heat waves in India which has resulted in increased deaths due to heat stroke, heart failure, acute kidney failure and frequent cases of dehydration.
- Because of heat waves, there has been loss of work hours and labour capacity. The maximum impact of heat wave has been in the agricultural sector – a large section of the population that depends on farming.
- This has resulted in decline in household income. As per World Bank estimate, in India there will be high socio-economic cost which may lead to erosion of 2.8% of GDP by 2050.
- The increase in heat wave may also result in pre-mature deaths, increase in vector borne disease, decrease in labour capacity and it will also adversely affect food production leading to food insecurity.

Highlight what should be India’s response

- Identification of heat spots
- Review occupational health standard
- regulate safety of work force amid rising temperature. Etc

Conclusion – emphasize on the seriousness of the problem and discuss way forward.

Background:-

- According to Lancet report from 2014-2017, the average length of heatwaves in India ranged from 3-4 days compared to the global average of 0.8-1.8 days, and Indians were exposed to almost 60 million heatwave exposure events in 2016, a jump of about 40 million from 2012.

Heat waves :-

Adverse impacts :-

- Health:-
  - Heatwaves are associated with increased rates of heat stress and heat stroke, worsening heart failure and acute kidney injury from dehydration.
  - Children, the elderly and those with pre-existing morbidities are particularly vulnerable.
  - Promote the spread of diseases like cholera and dengue fever across endemic areas.
- Economic:-
  - Labour less:-
    - India lost nearly 75 billion hours of labour in 2017 as a result of rising temperatures.
▪ This made sustained work increasingly difficult and negatively affecting workers’ output.
▪ The agriculture sector experienced the largest increase in labour loss.
▪ Almost 153 billion hours of labour were lost globally in 2017 due to heat, an increase of 62 billion hours from the year 2000.
▪ Agriculture sector was more vulnerable compared to the industrial and service sectors because workers there were more likely to be exposed to heat.
▪ Since 1990, every region of the globe has become steadily more vulnerable to extreme increases of heat.

How India should deal with heat waves:
▪ Identifying heat hot-spots through appropriate tracking of meteorological data and promoting timely development and implementation of local Heat Action Plans with strategic inter-agency co-ordination, and a response which targets the most vulnerable groups.
▪ The report prepared jointly with the Public Health Foundation of India also urges a review of existing occupational health standards, labour laws and sectoral regulations for worker safety in relation to climatic conditions.
▪ **Policy intervention and coordination across three sectors** health, water and power is necessary.
▪ **Expedite the rollout of the National Action Plan on Climate Change and Health**
  ▪ Preventing temperature-related morbidity and mortality could be a key programme under this mission.
  ▪ **Ensure an adequate supply of water.** Timely access to drinking water can help mitigate this escalation.
  ▪ Provision of drinking water within housing premises and indoor toilets.
  ▪ Further research using sub-district level data to provide separate indices for urban and rural areas to enable more targeted geographical interventions.
  ▪ **Deeper analysis of urban ward-level data** to provide intra-city vulnerability patterns.
  ▪ **Provision of public messaging** (radio, TV), mobile phone-based text messages, automated phone calls and alerts.
  ▪ **Promotion of traditional adaptation practices**, such as staying indoors and wearing comfortable clothes.
  ▪ **Popularisation of simple design features** such as shaded windows, underground water storage tanks and insulating housing materials.
  ▪ Advance implementation of local Heat Action Plans, plus effective inter-agency coordination is a vital response which the government can deploy in order to protect vulnerable groups. **This will require identification of “heat hot spots”, analysis of meteorological data and allocation of resources to crisis-prone areas.**
▪ **Other states can follow this:-**
  ▪ Ahmedabad Municipal Corporation (AMC) has adopted a heat action plan which necessitates measures such as building heat shelters, ensuring availability of water and removing neonatal ICU from the top floor of hospitals. It has helped bring down the impact of heat wave of vulnerable population.

Q) In the wake of the recent scientific reports on Climate change, it is imperative to finalise the rule book by 2018. Comment. (250 words)

**Indian express**

**Why this question**

*The IPCC has recently released its report on climate change and the future prospects. Rule book under the Paris Climate pact is also being prepared in Katowice, Poland and is an important document as far as our endeavours against climate change are concerned.*

**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 recently released scientific reports in relation to climate change. It also wants us to express our opinion as to why framing the rule book under the Paris Climate pact is to be done at earnest.*

**Structure of the answer**

**Introduction-**
write a few introductory lines about the recently released report of IPCC. E.g The report presented last month has said that to attain the 1.5°C target, the world needs to bring down its greenhouse gas emissions to about half of its 2010 levels by 2030, and to net zero by about 2050.

Body-

Discuss about the other reports in brief detail. E.g This week’s Emissions Gap report, released by the UN Environment Program, has said if the countries do not substantially enhance their actions before 2030, the 1.5°C target would get out of reach. Calling for “unprecedented and urgent action”, it has reported that total annual global greenhouse gas emissions in 2017, at 53.5 billion tonnes carbon dioxide-equivalent, was 0.7 billion tonnes higher than the previous year. This is the first time in four years that the total emission has shown an increase; Last week, the World Meteorological Organization reported that global average surface temperatures in 2018 was all set to be the fourth highest ever recorded. The 20 warmest years have all been in the last 22 years, with the top four being the last four years etc.

Discuss the meaning and importance of the rule book to be formed as per the Paris Climate pact. E.g rule book will consist of rules, procedures, guidelines, and institutional mechanisms through which the provisions of the Paris Agreement would be implemented. These include such things as agreeing on accounting standards to measure emissions, processes for monitoring, reporting and verification (commonly referred to as MRV in climate negotiation circles) of actions being taken by individual countries, mechanisms to raise financial resources and ensure the flow of funds for climate projects, and institutions to facilitate the diffusion of appropriate technologies to countries and regions that need them.

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

Background:-
- The current measures announced by countries, some already under way and others to be implemented in the coming years, were hugely inadequate for achieving the agreed objective of keeping the rise in global temperatures within 2°C from pre-industrial times.

Other reports :-
- Emissions Gap report, released by the UN Environment Program, has said if the countries do not substantially enhance their actions before 2030, the 1.5°C target would get out of reach.
- Calling for unprecedented and urgent action, it has reported that total annual global greenhouse gas emissions in 2017, at 53.5 billion tonnes carbon dioxide-equivalent, was 0.7 billion tonnes higher than the previous year. This is the first time in four years that the total emission has shown an increase.
- The World Meteorological Organization reported that global average surface temperatures in 2018 was all set to be the fourth highest ever recorded. The 20 warmest years have all been in the last 22 years, with the top four being the last four years etc.
- Recently published IPCC report states that to reach the target of global temperature to 1.5°C below pre-industrial levels, countries need to reduce to half of 2010 by 2030 and to net zero by 2050.

Rule book is necessary:-
- Rule book will consist of rules, procedures, guidelines, and institutional mechanisms through which the provisions of the Paris Agreement would be implemented.
- These include such things as agreeing on accounting standards to measure emissions, processes for monitoring, reporting and verification (commonly referred to as MRV in climate negotiation circles) of actions being taken by individual countries, mechanisms to raise financial resources and ensure the flow of funds for climate projects, and institutions to facilitate the diffusion of appropriate technologies to countries and regions that need them.
- Most of the issues to be dealt with and agreed upon, notably those relating to finance, technology, and MRV, are highly contentious, and the negotiators face an uphill task. These can be resolved if a clear rule book is available.
- Financial irregularities in form of Intended Nationally Determined Contributions (INDC) can be easily tracked.

Conclusion:-
- Rule book will give impetus to the collective efforts made by the countries in mitigating climate change and lead to early implementation of targets intended.
Q) Money has been central to many a fight at the climate negotiations. Discuss the issues surrounding climate finance that are dominating headlines before COP24? (250 words)

Why this question
Prior to COP24, one of the major issues of contention between developed and developing countries has been the issue of climate finance and framing rules for the same. The article discusses the major points of contentions and would help you enhance your understanding of the subject matter.

Key demand of the question
The question expects us to explain about GCF, discuss the issues in climate finance and how those issues are attempted to be resolved at COP24.

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 the GCF was set up in 2010 under the UNFCCC’s financial mechanism to channel funding from developed countries to developing countries to allow them to mitigate climate change and also adapt to disruptions arising from a changing climate.

Body
Explain the macro issue – For many years, the fight was to get the developed countries to commit themselves, in writing, to providing this money. Written commitment has not ended the fight, and has not assured developing countries a steady supply of at least $100 billion from 2020.

Discuss the issues involved
- Framing the rulebook means agreeing on such things as common standards to measure emissions, processes for monitoring, reporting and verification (‘MRV’ in climate jargon) of the various actions being taken by individual countries, and guidelines and institutions to facilitate diffusion of appropriate technologies to countries and regions that need them. It also means putting in place clear and transparent accounting mechanisms to measure and verify flows of climate finance.
- Track record of the developed countries in fulfilling their finance commitments has been disappointing. They have often been accused by developing countries of double-counting, inflating claims, re-packaging existing aid money as climate finance, and ignoring the requirements of adaptation activities. Developing countries insist that climate finance must be “new and additional” and must be provided for mitigation as well as adaptation efforts as mentioned in the Paris Agreement. Etc

Explain how the issue is attempted to be resolved at COP24 and what the next course of action should be

Conclusion – Emphasize on the necessity of coming to an agreement as soon as possible for mitigating and adapting to climate change.

Background :-
- The UN Framework Convention on Climate Change (UNFCCC) under which climate talks have been taking place, requires a group of rich and developed countries to provide financial assistance to developing nations to deal with climate change, because it was the rich world’s emissions over the last 150 years that caused the climate problem in the first place.

Issues regarding climate finance :-
- At the 2015 climate meeting in Paris even though the $100 billion figure, which the developed countries agreed to “mobilise” for the developing nations every year from 2020, was not mentioned in the Paris Agreement itself, but was part of other decisions taken at the meeting.
• Track record of the developed countries in fulfilling their finance commitments has been disappointing.
  o They have often been accused by developing countries of double-counting, inflating claims, re-packaging existing aid money as climate finance, and ignoring the requirements of adaptation activities.

• Data confusion:
  o Developed countries have at various times made optimistic claims about the money that has already started to flow in.
  o A report by the Organisation for Economic Co-operation and Development (OECD) claimed in 2015 that nearly $62 billion in climate finance had flown in until the previous year. In response, India had put out a discussion paper saying a more credible figure was just $2.2 billion.
  o The UNFCCC’s Standing Committee on Finance has said in a recent report that the total climate finance not just from government sources was $33 billion in 2015 and $38 billion in 2016, and that the rate of year-on-year increase had actually declined from 24% in 2015 to 14% in 2016.

• Money flows through multilateral institutions like the Green Climate Fund have also stagnated.
  o Even the initial offer of $10 billion has not been fulfilled because of the decision of the US to walk out of the Paris Agreement.
  o The promised replenishments are still to materialise. A recent discussion paper by the Indian government noted that only about 12% of the total pledges to multilateral climate funds had actually materialised into disbursements.

• Developing countries have been pointing out that the $100 billion amount was woefully inadequate to meet climate challenges, and have been asking that this be increased significantly.

• Complicated accreditation process:
  o For a country to directly access GCF finance, it must first nominate a national designated authority usually an existing government department like the finance or environment ministry which then nominates an institution for accreditation.
  o Simplifying the accreditation process would perhaps be the biggest help.

Way forward:
• Developing countries insist that climate finance must be “new and additional” and must be provided for mitigation as well as adaptation efforts as mentioned in the Paris Agreement.
• Five Europe-based multinational banks recently pledged to employ cash lying with them to nudge clients away from polluting businesses. The banks on the sidelines of the COP24 summit stated that with five banks having a combined loan book of over €2.4 trillion, believe banks have an important role to play in scaling and accelerating the transition toward a climate-resilient world.

Q) Tackling climate change requires all countries to iron out the issues in framing the rulebook to implement pledges that were made by various countries at the Paris Climate Conference in 2015. Examine. (250 words)

The hindu

Why this question
The framing of the rulebook for tackling climate change in COP 24 is an important step being undertaken to tackle climate change. Hence we need to know the issues involved therein.

Key demand of the question
The question expects us to explain about the major issues that are impeding the framing of the rulebook and what needs to be done.

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 that the world is in deep trouble. Average global temperatures have crossed a degree Celsius above preindustrial levels and such concentration of carbon dioxide in the atmosphere (410 ppm) has never been seen by humans before. The 24th meeting of the Conference
of the Parties (COP-24) to the United Nations Framework Convention on Climate Change (UNFCCC) in Katowice, Poland (December 3-14) is meant to take forward steps to address this threat of climate change.

Body

Explain the macro issue – The purpose of the meeting is to set guidelines, or agree on a rulebook, to implement pledges that were made by various countries at the Paris Climate Conference in 2015. In the Nationally Determined Contributions (NDCs), planned ahead of the Paris COP-21, each country described the actions it would take and the levels to which greenhouse gas (GHG) emissions would be reduced (mitigation). Many of them also described what they would do to improve their capacity to live in a warmer world (adaptation), and the extent to which these goals required support in the form of finance or technology transfer. Framing these rules has several issues involved.

Discuss the issues involved

- Framing the rulebook means agreeing on such things as common standards to measure emissions, processes for monitoring, reporting and verification (‘MRV’ in climate jargon) of the various actions being taken by individual countries, and guidelines and institutions to facilitate diffusion of appropriate technologies to countries and regions that need them. It also means putting in place clear and transparent accounting mechanisms to measure and verify flows of climate finance.

- track record of the developed countries in fulfilling their finance commitments has been disappointing. They have often been accused by developing countries of double-counting, inflating claims, re-packaging existing aid money as climate finance, and ignoring the requirements of adaptation activities. Developing countries insist that climate finance must be “new and additional” and must be provided for mitigation as well as adaptation efforts as mentioned in the Paris Agreement.

- Countries with average income exceeding $15,000 typically have the capacity and finance and technology to reduce their emissions dramatically. They must also alter their lifestyles considerably, which is required for the transformational change that the 1.5 Degree Report calls for.

- separate stream referred to as “loss and damage” needs attention. This is a provision for support to poor countries experiencing economic and non-economic losses and destruction from climate change events. There has not been much progress on this issue by the task force set up to advance it.

Explain how the issue is attempted to be resolved at COP24 and what the next course of action should be

Conclusion – Emphasize on the necessity of coming to an agreement as soon as possible for mitigating and adapting to climate change.

Background :-

- In the Nationally Determined Contributions (NDCs) planned ahead of the Paris COP-21 each country described the actions it would take and the levels to which greenhouse gas (GHG) emissions would be reduced (mitigation). Many of them also described what they would do to improve their capacity to live in a warmer world (adaptation) and the extent to which these goals required support in the form of finance or technology transfer.

- The current conference at Poland comes soon after a special publication by the Intergovernmental Panel on Climate Change (IPCC), the 1.5 Degree Report, according to which what we need are far reaching, speedy transformative changes in our societies in order to stay below 1.5°C. Calling for an immediate and drastic drop in GHG emissions through technology and lifestyles and a focus on mitigation and adaptation.

Why tackling climate change need to look into issues framing the rule book :-

- There has been little progress on finance, technology transfer and capacity development. Article 9 of the Paris agreement calls for financial support from developed countries that is significantly derived from public funds, which should represent a progression beyond previous efforts. This was expected to result in at least
$100 billion per year to address needs and priorities of developing countries for mitigation and adaptation. But this is not happening.

- Framing the rulebook means agreeing on such things as common standards to measure emissions, processes for monitoring, reporting and verification (‘MRV’ in climate jargon) of the various actions being taken by individual countries, and guidelines and institutions to facilitate diffusion of appropriate technologies to countries and regions that need them. It also means putting in place clear and transparent accounting mechanisms to measure and verify flows of climate finance.
- Track record of the developed countries in fulfilling their finance commitments has been disappointing. They have often been accused by developing countries of double-counting, inflating claims, re-packaging existing aid money as climate finance, and ignoring the requirements of adaptation activities. Developing countries insist that climate finance must be new and additional and must be provided for mitigation as well as adaptation efforts as mentioned in the Paris Agreement.
- Countries with average income exceeding $15,000 typically have the capacity and finance and technology to reduce their emissions dramatically. They must also alter their lifestyles considerably, which is required for the transformational change that the 1.5 Degree Report calls for.
- Separate stream referred to as loss and damage needs attention. This is a provision for support to poor countries experiencing economic and non-economic losses and destruction from climate change events. There has not been much progress on this issue by the task force set up to advance it.

Q) What are the benefits of deep sea mining and what are the potential harms it can inflict on the society and the environment. Discuss. (250 words)

The hindu
Reference

Why this question
Oceans hold the new resource frontier in the form of polymetallic nodules which contain elements vital for the digital societies. In this context it is important to analyze the pros and cons of deep seabed mining, which is gaining increasing popularity across the world, including 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 pros/ need of deep seabed mining and also the cons in terms of its effects on environment and coastal communities.

Structure of the answer
Introduction– Write a few introductory lines about the UNCLOS and ISA and its relation to seabed mining. E.g under the United Nations Convention on the Law of the Sea (UNCLOS), any country or deep sea mining company that wishes to exploit the seabed needs an exploration contract from the International Seabed Authority (ISA).

Body-
Discuss the pros/ benefits/ necessity of pursuing seabed mining. E.g Hailed as a ‘new resource frontier’, the deep seabed is home to a variety of valuable minerals and metals, which lie hidden in underwater ridges, seamounts and sediment; polymetallic nodules comprising copper, nickel, cobalt, manganese, iron and rare earth elements are key to making modern gadgets, from smartphones and laptops to pacemakers, hybrid cars and solar panels; “These metals are not widely available in India, so they have strategic importance, as well; Sediment kicked up by underwater mining would dissolve and resettle, and there would be no carbon emissions, unlike on land; There would be no need to build roads, infrastructure or relocate communities etc.

Discuss the cons. E.g Mining for nodule resources on the seafloor is likely to be highly destructive in the mined area, with long-lasting impacts; Sediment plumes and disturbance caused by mining could
wipe out habitats for slow-growing corals and fish; It could also have long-term effects on how the ocean, which absorbs carbon dioxide and heat, regulates the world’s climate; Aside from the impact on aquatic ecosystems, these issues could also have serious consequences for the livelihoods and well-being of coastal communities; mining exposes sea life to metallic and acidic substances, which introduce toxic particles to underwater food chains. Deep sea trawling has already shown that the destruction of oceanic topography takes a big toll on fish, particularly slow-breeding species such as redfish and orange roughy. Aside from the impact on aquatic ecosystems, these issues could also have serious consequences for the livelihoods and well-being of coastal communities etc.

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

Background:-
- Ocean minerals are becoming increasingly valuable in the current market: with commodity prices soaring, utilisation of mineral resources such as cobalt, copper or zinc will go marine to contribute to a more sustainable production of our future resources – for the benefit of mankind.

Benefits of deep sea mining:-
- Resourses:-
  - Special metals found in rich deposits are critical for smart electronics and crucial green technologies, such as solar power and electric cars.
  - Hailed as a ‘new resource frontier’, the deep seabed is home to a variety of valuable minerals and metals, which lie hidden in underwater ridges, seamounts and sediment; polymetallic nodules comprising copper, nickel, cobalt, manganese, iron and rare earth elements are key to making modern gadgets, from smartphones and laptops to pacemakers, hybrid cars and solar panels
- Sediment kicked up by underwater mining would dissolve and resettle, and there would be no carbon emissions, unlike on land. There would be no need to build roads, infrastructure or relocate communities etc.

Potential harm deep sea mining causes on society and environment:-
- Ecology:-
  - Deep sea mining has the potential to fundamentally alter underwater ecology.
  - The habitat loss, light pollution and loss of non-recurring species are highest impact implications.
  - Waste water released during processing of ores may carry sediments and heavy metal
  - Undersea noise will disturb movement and breeding pattern,
  - Light will change the behavioral and breeding pattern of benthic communities
  - Large robots will destroy habitats of rare species.
- Mining for nodule resources on the seafloor is likely to be highly destructive in the mined area, with long-lasting impacts
  - Sediment plumes and disturbance caused by mining could wipe out habitats for slow-growing corals and fish
  - It could also have long-term effects on how the ocean, which absorbs carbon dioxide and heat, regulates the world’s climate
  - Mining exposes sea life to metallic and acidic substances, which introduce toxic particles to underwater food chains.
  - Deep sea trawling has already shown that the destruction of oceanic topography takes a big toll on fish, particularly slow-breeding species such as redfish and orange roughy.
  - Aside from the direct impact of mining the area, some researchers and environmental activists have raised concerns about leakage, spills and corrosion that could alter the mining area’s chemical makeup.
- These issues could also have serious consequences for the livelihoods and well-being of coastal communities

Way forward:-
- There is a need for an international charter as in the absence of a clear charter, deep sea mining operations could cause irreversible damage to a little understood ecology.

Q) All environmental struggles across the world are caught in sharply divided goals of popular politics and people’s right to live in a safe and sustainable environment. Do you agree. Comment. (250 words)
Why this question
As various scientific reports suggest, the world is not doing enough to bridle the climate change and the threats associated with environmental degradation have only increased with time. The article discusses the reasons for the failure to act as required in order to conserve our environment.

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 opinion as to whether most of the environmental struggles across the world are affected by the tussle between the popular politics and the people’s right to safe environment, or not. We have to justify our opinion with proper discussion and presentation of valid arguments and facts.

Structure of the answer
Introduction– mention about some of the important environmental struggles/movements which involved a tussle between the politics and people’s rights. E.g Narmada Bachao, Chipko movement, Niyamgiri Hills people’s struggle etc.

Body-
Bring out the contest between popular politics and people’s right to safe and sustainable environment. E.g Sustainable development goals developed by UN and agreed to by all the nations have been included in the school syllabus in India but their presence is merely nominal in the country; Policy documents include environmental concerns, but prioritise economic growth; In the context of globalisation, most countries propagate competitive nationalism etc.

Discuss the role of individual people in environmental degradation- driven by materialism, increased incomes, more liberty but lack of sense of duty etc.

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

Background:-
- India continues to grapple with several environmental issues like air and water pollution, and those related to plastic and solid waste management, which demand swift action to protect nature.

Environmental struggles :-
- Chipko movement:-
  o In the wake of reckless deforestation, a unique movement has bubbled in 1982. The 1980s saw the debate on environment move from just deforestation to the larger issues of depletion of natural resources.
- Silent Valley hydroelectric project was to dam the Kunthipuzha River, submerging the entire biosphere reserve and destroying its four-million-year-old rainforests.
  o In 1980, the M.G.K. Menon Committee set up to review the project, came out with a recommendation to scrap it. This grassroots movement became the bedrock of Indian environmental activism
- Jungle bachao Andolan:-
  o The tribals of Singhbhum district of Bihar bubbled up a protest when the government decided to replace the natural sal forests with highly-priced teak, a move that was termed “a greed game, political populism”
- Narmada Bachao Andolan announced the arrival of the India Greens, protesting against destructive development.
  o One of the largest and most successful environmental campaigns, Narmada Bachao Andolan began with a wide developmental agenda, questioning the very rationale of large dam projects in India

How environmental struggles across the world are caught in sharply divided goals of popular politics and people’s right to live in safe and sustainable environment:-
- Global leaders see climate change as an irritating discourse, they also think it has no substance or truth. These leaders believe that no goal should override high industrial and economic growth.
As for the threat of climate change, these leaders deny it and blame activist scientists for creating and spreading a myth.

Those who espouse environmental causes are often seen as romantics while people who support fast economic growth based on rapid industrialization are perceived as practical realists.

For more than two decades, there has been a lively environmental debate along with a high degree of legislative activity in India. However, there is vast agreement that the results of various reforms and regulations have been disappointing. Implementation has been poor.

Even in the recent G20 summit there have been no concrete developments with respect to environment.

Sustainable developmental goals have only a nominal presence in school curriculum.

In the context of globalisation, most countries propagate competitive nationalism.

Even the individual plays a significant role in environmental degradation:-

- People around the world are also equally responsible for the current apathy towards environment. Despite laws people don’t abide by them and take environment protection is a very casual way with no sense of duty.
- With more incomes and economic growth people are driven by materialistic approach.

Way forward:-

- Transport conservation is another thing we can do since one of the biggest sources of greenhouses gases is transportation. Make better transport choices by choosing the least damaging option.

Recycle, reuse, and compost:-

- Recycling involves cutting down on waste and energy consumption by turning used items such as plastic bottles into new items. Reusing involves cutting down on waste by reusing items such as grocery bags. Composting involving using food waste to help create nutrient-rich soil rather than landfill waste.

- India must review the programmes that it has been pursuing to revive forests, and move away from monoculture plantations that are favoured by even forest development corporations in many States.

- Scientific reforms to bring true nature back are needed.

- Landfills are constantly on fire exposing lakhs of people to carcinogenic emissions. This is a common problem in all cities. If people segregated garbage at home, there would be no burning of waste. People can also choose public transport, or pick electric and CNG vehicles.

Q) Compare and contrast the performance of Delhi vis a vis Beijing in tackling air pollution?

Financial express

Why this question

The article compares and contrasts the performance of Delhi and Beijing in tackling air pollution. Learning from the example of a city that has managed to successfully alleviate part of the problem that Delhi grapples with will help us in deciding the way forward for Delhi.

Key demand of the question

The question expects us to explain the steps taken by Delhi and Beijing in tackling air pollution and explain what gives Beijing the edge and what lessons Delhi can learn from Beijing in tackling air pollution.

Structure of the answer

Introduction – Highlight the scale of the problem of air pollution faced by Delhi and Beijing.

Body

- Discuss the steps taken by Delhi in tackling air pollution – odd even scheme, ban on construction etc
- Discuss the steps taken by Beijing in tackling air pollution – Beijing set doable targets and made sure they are achieved. For this, the government restricted movement of diesel trucks within the city and major cargo corridors in and out of Beijing, resulting in reduction of PM2.5 pollution by 35%. All construction-related activities were banned from November 15, 2017, to March 15, 2018. Carbon emissions reduction was strictly imposed on heavily polluting industries.
• Explain that Beijing on the basis of research and data has tackled the major causes and achieve significant improvements. Delhi on the other hand has lagged behind in upgrading it’s infrastructure for combating vehicular emissions etc

Conclusion – Discuss the lessons that are there for Delhi and the way forward.

Background:-
• The WHO global air pollution database report that ranked 14 Indian cities among the 15 of the world’s most polluted, in terms of particulate matter (PM) 2.5 concentration, received great attention in India.
• The main sources of air pollution in NCR are more or less of the same nature as in case of Beijing, except that the former has an additional source from stubble burning.

Measures taken by Delhi to tackle air pollution:-
• Banning the use of private vehicles from November 1 onwards, although drastic, will definitely not be enough to curb pollution.
• Odd-even schemes and, recently, the allowance by the Supreme Court (SC) for only green or zero-emission firecrackers, are the episodic measures that have been used, and still continue to be, to combat this methodical pollution.
• There have also been instances of ban on construction activities.

Measures taken by Beijing to tackle air pollution :-
• Beijing appears to have turned the tide in its battle against air pollution in five years through an action plan launched in 2013. The air pollution of Beijing of PM2.5 has come down by 54% on average with commensurate improvement in other parameters.
• Research found that emissions from vehicles and dust generated by construction/digging activities and road cleaning etc accounted for most air pollution. Further, 45% of PM2.5 was produced by vehicles only, diesel trucks being the worst offenders. So, Beijing set doable targets and made sure they are achieved.
• The government restricted movement of diesel trucks within the city and major cargo corridors in and out of Beijing, resulting in reduction of PM2.5 pollution by 35%.
• All construction-related activities were banned from November 15, 2017, to March 15, 2018. Carbon emissions reduction was strictly imposed on heavily polluting industries.

Performance of Delhi has been bad due to the following reasons:-
• Transport:-
  o Use of private cars, two- and three-wheelers, and taxis is bound to be much higher in Delhi NCR than in Beijing. Public transport system might not be capable of handling these numbers, especially if the Delhi government continues to overlook the establishment of dedicated bus corridors, despite increased metro coverage.
  o SC had ordered building of peripheral expressways so that diesel trucks, not destined for Delhi, do not enter the city. However, these have been completed only now after 13 years.
• Construction:-
  o While Delhi NCR banned all construction activities only for 12-15 days stating November1, Beijing enforced it for four months last year and this year too ensured that measures are taken to suppress dust.
  o Upgrading to zig-zag technology of highly-polluting brick-kilns industry to be completed before the start of winter has been partially done.
  o Also, the ban on use of coal in industries (50,000 still in residential areas) after October 30 is not effectively implemented according to NGT.
• Stubble burning is still the reality because the price of ‘happy seeder’ (’1.25-1.5 lakh) is still prohibitive for small farmers who constitute a majority.
• Odd-even didn’t work because, while vehicles accounted for around 9% of the city’s pollution, just a tenth was due to 4-wheelers that were affected by odd-even.
• Pollution due to the bursting of firecrackers is relatively small, compared to road dust that contributes 56% and 38% of Delhi’s PM10 and PM2.5 pollution, respectively, and crop stubble burning according to a Harvard study, is responsible for 50% of the pollution in October and November in the NCR.

Way forward :-
• Delhi must enforce a long-period ban on construction-related activities in all 15 hotspots right from the time the pollution touches poor category.
• Pollution from other sources has to be controlled by strict enforcement of time-bound ambitious targets and honest monitoring, as Beijing has done.
SECURE SYNOPSIS

- Short term measures should be accompanied by measures that increase the forest cover of the land and provide farmers with an alternative to burning the remains of their crops.
- Need to speed up the journey towards LPG and solar-powered stoves.
- Addressing vehicular emissions is within India’s grasp but requires a multi-pronged approach. It needs to combine the already-proposed tighter emission norms (in form of BS VI), with a push for shared mobility and public transport and adoption of alternate mobility technologies. While shared mobility can moderate the demand for individual vehicle ownership and usage, technology solutions today can allow for a sharp reduction in emissions per vehicle.
- Incentives for adoption of alternate mobility technologies:-
  - India might need to consider pushing for battery localisation. Cell investments would need a long lead-time to materialize.
- Restrictions on elements that contribute negatively to strategic objectives (such as congestion charges on polluting technologies):-
  - London imposes congestion charges during working hours on weekdays to vehicles entering the city centre.
  - All these disincentives to traditional cars help in the push for electric vehicles.
- Enabling infrastructure:-
  - There is an early need to standardise charging infrastructure/equipment to ensure interoperability and make it widespread.
- Stubble burning issue in North India need to be looked into seriously.
- Attention to non-technological aspects such as urban planning, to reduce driving, and to increase cycling, walking, and use of public transport are needed.
- Tackle road dust:-
  - The Delhi government has talked of mechanised sweeping and water-sprinkling but what would be more beneficial is if the sides of the roads could be paved or covered with grass that holds the soil together and stops the production of the dust in the first place.
- Reducing the vehicle density on Delhi’s streets needs the city to vastly improve its public transport:-
  - More and more people should use bus and metro instead of cars and scooters, as they can carry a lot more people in one journey. Car pool is also a good option.

Q) The Rule book agreed to in COP 24, is not ambitious enough to prevent the dangerous effects of global warming. Critically analyze. (250 words)

Why this question
Nearly 200 countries have agreed to the rule book to the Paris agreement in the recently held COP 24 held at Kavotice recently. However the rule book has been criticised for being not enough to tackle the Climate change issue. It is therefore necessary to discuss its shortcomings as well as its positive implications.

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 delve deeper into the provisions and main points of the rule-book agreed to in COP 24. It wants to bring out the shortfalls and deficiencies of the rule-book and also bring out the positive implications/points, if any. Based on our discussion we have to form an opinion on the issue in the form of a way-forward.
Structure of the answer

Introduction– write a few introductory lines about the COP 24 and the rulebook recently agreed to by the group of nearly 200 countries. E.g mention what is rulebook and its relation to the Paris agreement.

Body-

Discuss the shortcomings of the rulebook. E.g Fine-tuning of some of the technical aspects under sub-article 6.2 (concerned with cooperative approaches and internationally transferred mitigation outcomes or ITMOS), and sub-article 6.4 (Sustainable Development Mechanism or SDM) has been left for COP25 in 2019, and will be based on the Subsidiary Body for Scientific and Technological Advice’s (SBSTA’s) recommendations and guidance. Similarly, sub-article 6.8 (non-market approaches) has also been relegated to the SBSTA for guidance, which unlike the other sub-articles, largely lacks content; The ambitious options of levying an automatic or discounted cancellation on the transfer of emission reductions, as proposed by the Alliance of Small Island States (AOSIS), have been removed etc.

Discussion the positive points. E.g While some rulebook elements still need to be fleshed out, it is a foundation for strengthening the Paris Agreement and could help facilitate U.S. re-entry into the Paris Agreement etc.

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

Rule book agreed in COP 24 :-

• The Paris Rulebook, agreed at the UN climate summit in Katowice, Poland, gives countries a common framework for reporting and reviewing progress towards their climate targets.
• The world will now be able to see how much the world is lagging behind on the necessary climate action.
• A key element of the Paris Agreement is the Global Stocktake which is a five-yearly assessment of whether countries are collectively on track to meet the Paris Agreement’s goals to limit global warming. The new rulebook affirms that this process will consider “equity and best available science”.
• The new rules allow a degree of flexibility for the most vulnerable countries, who are not compelled to submit quantified climate pledges or regular transparency reports. All other countries will be bound to report on their climate action every two years, starting in 2024.
• Finance:-
  o The new rulebook defines what will constitute “climate finance”, and how it will be reported and reviewed.
  o Developed countries are now obliged to report every two years on what climate finance they plan to provide, while other countries in a position to provide climate finance are encouraged to follow the same schedule.

The rule book fails to prevent the dangerous effects of global warming :-

• The rulebook offers little to compel countries to up their game to the level required.
• The rule book will offer no prescription for fixing things with respect to global stocktake. This risks failing to address one of the biggest issues with the Paris Agreement so far i.e., that countries are under no obligation to ensure their climate pledges are in line with the overall goals.
• Rather than directly asking for national climate targets to be increased, the Katowice text simply reiterates the existing request in the Paris Agreement for countries to communicate and update their contributions by 2020.
• The newly agreed rulebook carries a substantial risk of double-counting where countries could potentially count overseas emissions reductions towards their own target, even if another country has also claimed this reduction for itself.
• Accounting rules for action in the land sector have also been difficult to agree. Countries such as Brazil and some African nations sought to avoid an agreement on this issue.

Q) The results of Lancet Planetary Health study are disquieting, for they point to a looming public health emergency that necessitates a renewed focus on mitigating the hazards of air pollution in India. Discuss and critically analyze government policies for dealing with the crisis? (250 words)

Eppw
**Why this question**

The article highlights the results of the planetary health study and emphasizes on the sizeable problem caused by the scourge of air pollution. The article also critically analyzes the policy of the government to deal with air pollution and provides alternative solutions. At a time when air pollution has become a daily news item, the question is relevant for mains.

**Key demand of the question**

The question expects us to to highlight the major problem that air pollution is in the introduction. Thereafter, we need to explain the findings of Lancet study and discuss its implications. Thereafter, we need to bring out the steps taken by the government to deal with the problem of air pollution and highlight it’s shortcomings. We need to end with emphasizing on the magnitude of the problem and discuss the way forward.

**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 air pollution has become a major issue with aqi constantly showing very poor or worse results in several major cities of the country.

**Body**

Discuss the findings of the Lancet study

- Indians suffer from disproportionately high mortality and disease burden on account of polluted air.

- It revealed that in India, the annual population weighted mean exposure to ambient particulate matter, PM2.5,in 2017 was 89.9µg/m3, which was one of the highest in the world. None of the states in India could comply with the World Health Organization (WHO)-recommended norm of ambient particulate matter air quality of less than 10µg/m3. Moreover, about 77% of the population was exposed to pollution levels higher than 40µg/m3, the level recommended by the National Ambient Air Quality Standards (NAAQS).

Discuss the impact of these findings

- Air pollution caused more disease burden in India than tobacco use, leading to respiratory infections, diseases of the lungs and heart, stroke and diabetes.

- The study estimated that about 1.24 million deaths in 2017 were attributable to air pollution. Of these, about 51.4% were of persons aged less than 70 years. The average life expectancy would have been higher by 1.7 years had the air pollution level been less than the minimal level. Etc

Explain the steps taken by the government in dealing with air pollution and examine its shortcomings.

- government acknowledged air pollution as a pan-India problem with the drafting of the National Clean Air Programme (NCAP), which was intended to build and strengthen the institutional capacity to monitor air quality across India, carry out indigenous studies to understand the health impacts of air pollution and create a national emission inventory.

- programme has been criticised by environmentalists for lack of clear reduction targets and strategies to ensure compliance to standards within a specified time frame. The criticisms are especially pertinent as the government has recently relaxed regulations for polluting coal-fired thermal power plants which were required to comply with emission standards

**Conclusion** – Give your view on the problem of air pollution and discuss way forward.
Background:-
• The WHO global air pollution database report that ranked 14 Indian cities among the 15 of the world’s most polluted, in terms of particulate matter (PM) 2.5 concentration, received great attention in India.

Lancet study:-
• The findings of research published in the *Lancet Planetary Health* validate that Indians suffer from disproportionately high mortality and disease burden on account of polluted air.
• None of the states in India could comply with the World Health Organization (WHO)-recommended norm of ambient particulate matter air quality of less than 10µg/m³.
• Moreover, about 77% of the population was exposed to pollution levels higher than 40µg/m³, the level recommended by the National Ambient Air Quality Standards (NAAQS).
• The study estimated that about 1.24 million deaths in 2017 were attributable to air pollution.
• Air pollution was not only confined to urban areas or cities alone, but affected rural regions as well, with rural Indians affected more disproportionately due to the burning of solid fuels.

Government policies in dealing with air pollution:-
• The government acknowledged air pollution as a pan-India problem with the drafting of the National Clean Air Programme (NCAP), which was intended to build and strengthen the institutional capacity to monitor air quality across India, carry out indigenous studies to understand the health impacts of air pollution and create a national emission inventory.
• Banning the use of private vehicles from November 1 onwards, although drastic, will definitely not be enough to curb pollution.
• Odd-even schemes and, recently, the allowance by the Supreme Court (SC) for only green or zero-emission firecrackers, are the episodic measures that have been used, and still continue to be, to combat this methodical pollution.
• There have also been instances of ban on construction activities.

Failure of government policies:-
• National clean air programme:-
  o The programme has been criticised by environmentalists for lack of clear reduction targets and strategies to ensure compliance to standards within a specified time frame.
  o The criticisms are especially pertinent as the government has recently relaxed regulations for polluting coal-fired thermal power plants which were required to comply with emission standards
• Banning the use of private vehicles from November 1 onwards, although drastic, will definitely not be enough to curb pollution.
• Odd-even schemes and, recently, the allowance by the Supreme Court (SC) for only green or zero-emission firecrackers, are the episodic measures that have been used, and still continue to be, to combat this methodical pollution.
  • These solutions don’t work :-
    o Odd-even didn’t work because, while vehicles accounted for around 9% of the city’s pollution, just a tenth was due to 4-wheelers that were affected by odd-even.
    o Pollution due to the bursting of firecrackers is relatively small, compared to road dust that contributes 56% and 38% of Delhi’s PM10 and PM2.5 pollution, respectively, and crop stubble burning according to a Harvard study, is responsible for 50% of the pollution in October and November in the NCR.
    o Though both Punjab and Haryana governments have introduced renting of machines, and subsidies for the same, that are part of the mechanised alternative, as per Down to Earth, the available lot can cover just a fifth of the acreage under paddy in Haryana in the short period farmers have between the harvest and sowing period.
    o Public transport system might not be capable of handling these numbers, especially if the Delhi government continues to overlook the establishment of dedicated bus corridors, despite increased metro coverage.
• Failure of the union and state governments in curbing crop residue burning in the areas around the National Capital Territory.
• Transport:-
  o Use of private cars, two- and three-wheelers, and taxis is bound to be much higher in Delhi NCR than in Beijing. Public transport system might not be capable of handling these numbers, especially if the Delhi government continues to overlook the establishment of dedicated bus corridors, despite increased metro coverage.
SECURE SYNOPSIS

- SC had ordered building of peripheral expressways so that diesel trucks, not destined for Delhi, do not enter the city. However, these have been completed only now after 13 years.

  - Construction:  
    o While Delhi NCR banned all construction activities only for 12-15 days stating November 1, Beijing enforced it for four months last year and this year too ensured that measures are taken to suppress dust.
    o Upgrading to zig-zag technology of highly-polluting brick-kilns industry to be completed before the start of winter has been partially done.
    o Also, the ban on use of coal in industries (50,000 still in residential areas) after October 30 is not effectively implemented according to NGT.

Long term measures are needed to tackle the crisis of air pollution:

- Short term measures should be accompanied by measures that increase the forest cover of the land and provide farmers with an alternative to burning the remains of their crops.
- Need to speed up the journey towards LPG and solar-powered stoves.
- Addressing vehicular emissions is within India’s grasp but requires a multi-pronged approach. It needs to combine the already-proposed tighter emission norms (in form of BS VI), with a push for shared mobility and public transport and adoption of alternate mobility technologies. While shared mobility can moderate the demand for individual vehicle ownership and usage, technology solutions today can allow for a sharp reduction in emissions per vehicle.
- Incentives for adoption of alternate mobility technologies:-  
  o India might need to consider pushing for battery localisation. Cell investments would need a long lead-time to materialize.
- Restrictions on elements that contribute negatively to strategic objectives (such as congestion charges on polluting technologies):-  
  o London imposes congestion charges during working hours on weekdays to vehicles entering the city centre.
  o All these disincentives to traditional cars help in the push for electric vehicles.
- Enabling infrastructure:-  
  o There is an early need to standardise charging infrastructure/equipment to ensure interoperability and make it widespread.
- Stubble burning issue in North India need to be looked into seriously.
- Attention to non-technological aspects such as urban planning, to reduce driving, and to increase cycling, walking, and use of public transport are needed.

Q) Despite the environmental and human costs, and NGT orders banning rat-hole mining, it is widely practiced across Meghalaya. Critically analyze. (250 words)

Downtoearth

Reference

Why this question

Rat-hole mining is a dangerous business and it recently took over the life of around 13 people in Meghalaya. This highlights the need to discuss its harms and also why the activity has continued even though NGT has banned it.

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 bring out in detail about the environmental and human costs of rat-hole mining in Meghalaya and bring out the reasons as to why the activity continues even after NGT orders banning it.

Structure of the answer
**Introduction** - write a few introductory lines about the Rat-hole mines. E.g briefly present a picture of a rat-hole mine as to how it is dug etc.

**Body**-

Discuss briefly the environmental and human costs of rat-hole mining. E.g it is a dangerous pursuit putting at risk the lives of miners who venture inside without any safety; danger of flooding and mine collapse; environmental hazard posed by mined out coal etc.

Discuss why rat-hole mining continues in Meghalaya even after the NGT has banned it. E.g the relaxations granted by the court have made it difficult to enforce the ban; The green tribunal, too, on several occasions, has caved in to appeals by miners and allowed the transportation of coal that had already been extracted; in January miners tend to sneak in fresh coal with previously extracted coal etc.

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

**Background**:-
- In 2014, the National Green Tribunal imposed a ban in Meghalaya on rat-hole mining of coal which is a technique that entails digging small vertical pits to reach the mineral.

**Rat hole mining:-**
- A rat-hole mine is made by digging pits ranging from 5 to 100 metres into the ground to reach the coal seam. Thereafter, tunnels are made sideways into the seam to extract the coal. Coal seams are reached by excavating the side edge of the hill slopes after which, coal is extracted through a horizontal tunnel. The coal from the tunnel or pit is taken out and dumped on nearby un-mined area from where it is carried to the larger dumping places near highways for its trade and transportation.
- These rat-hole mines are spread throughout Meghalaya, but are mostly concentrated in the Jaintia Hills, the South Garo Hills, west Khasi hills.

**Environmental and human costs of rat-hole mining:-**
- **Threat to life:-**
  - Recently 13 people have been trapped inside a coal mine in Ksan village in East Jaintia Hills.
- **Health impacts:-**
  - Accidents, Mental problems including stress, depression and suicide, Violence related health impacts, Occupational disease and accidents, Deaths.
  - During the rainy season, water flooded into the mining areas resulting in death of many individuals including employees/workers.
- **Environmental impact:-**
  - In Jaintia Hills large scale forest denudation, scarcity of water, pollution of air, water and soil and degradation of agricultural lands are some of the conspicuous environmental implications of coal mining.
  - Air pollution, Biodiversity loss (wildlife, agro-diversity), Food insecurity (crop damage), Global warming, Loss of landscape/aesthetic degradation, Noise pollution, Soil contamination, Soil erosion, Waste overflow, Deforestation and loss of vegetation cover, Surface water pollution / Decreasing water (physico-chemical, biological) quality, Groundwater pollution or depletion, Large-scale disturbance of hydro and geological systems, Reduced ecological / hydrological connectivity.
  - According to activists rat-hole mining in Meghalaya had caused the water in the Kopili river to turn acidic.
  - Off road movement of trucks and other vehicles in the area causes further damage to the ecology of the area.

**Why rat-hole mining continues in Meghalaya even after the NGT has banned it:-**
- **Illegal mining:-**
  - Activists have often alleged that coal continues to be mined illegally in the state, particularly in the Jaintia Hills, often with the collusion of authorities.
  - Government officials and the police say the relaxations granted by the Supreme court have made it difficult to enforce the ban.
  - The green tribunal, too, on several occasions, has caved in to appeals by miners and allowed the transportation of coal that had already been extracted.
  - **Miners tend to sneak in fresh coal** with previously extracted coal.
The National Green Tribunal's order banning coal mining in the state notes that it did not follow regulations. Before 2014, coal mining was practically a free for all in Meghalaya so miners, citing the state’s Sixth Schedule status, followed none of the laws that apply to coal extraction in the state.

The state government was supposed to take steps for environmental restoration, but nothing has been done.

- The State Government has failed to check illegal mining effectively and has also not framed the mining policy, mining plan and the guidelines as directed under the orders of the Tribunal.

Coal mining is a means of livelihood for large portion of the population.

Way forward:-

- The order of the tribunal is likely to bring about some serious response from the government and the mining community as it an important economic activity that cannot afford to remain suspended.
- The state has also proclaimed that they are in the process of formulating the concession rules for implementation of the Meghalaya Mines and Mineral Policy, 2012.

Q) There is an urgent need to reconsider green clearance mechanism for small-scale mining in India. Examine. (250 words)

downtoearth

Why this question

Small-scale mining is a huge source of resource exploitation, environmental degradation as well as corruption. It is necessary to look into the issue in detail and discuss why there is a need to reconsider the regulatory aspects of Small-scale mining in India.

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 deeper into the issue of small-scale mining in India and bring out the reasons in detail as to why there is an urgent mechanism to reconsider the green clearance mechanism designed for small-scale mining.

Structure of the answer

Introduction- write a few introductory lines about the regulatory aspect of small-scale mining in India. E.g the regulating authorities identify the areas where mining can be allowed and also where mining must be prohibited due to geological and physical limits etc.

Body-

Discuss in points about the problems with the green clearance mechanism for small-scale mining and why therefore there is a need to reconsider it. E.g In its December order, the NGT has observed that the 2016 EIA Amendment has failed improve environmental safeguards for mining in small scale leases; the tribunal questioned the competence and knowledge of authorities dealing with such ECs; There are mounting cases of rampant and illegal activities particularly related to sand and stone mining.; DEAC is not competent enough to conduct proper scientific evaluation of project impacts allowing it to evaluate sand mining proposals, which is a major small scale mining activity in all states and has huge environmental implications, is also not suitable for the Sustainable Sand Mining Management Guidelines, proposed by the union ministry in 2016; The NGT has particularly questioned expertise and qualification of the DEAC members as outlined in the 2016 Amendment; To ensure environmentally responsible mining, the Centre should develop guidelines in spirit of the SC judgment that was given in 2012. The SC in its 2012 judgment in the matter of Deepak Kumar etc. vs State of Haryana & Ors. had emphasised the ills of unscientific sand mining and the importance to deal with it through proper regulatory mechanism.

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

Background:-

- Three years ago Environment ministry in India created district-level authorities to give environmental clearance (EC) to small-scale mining projects. The NGT has now directed the ministry to reconsider and revise
the steps and procedures for granting EC to small scale mining leases of minor minerals, as laid down in the January 2016 notification.

Green clearance mechanism for small scale mining in India:-
- In 2016, the ministry of environment amended the Environmental Impact Assessment (EIA) Notification 2006 and made EC compulsory for mining of minor minerals in lease areas of any size.
- The amendment specified that ECs will be required for mining even in leases below or equal to five ha, which earlier did not require an EC.
- At the same time, district level authorities i.e., District Environment Impact Assessment Authority (DEIAA) and District Expert Appraisal Committee (DEAC) were created to deal with ECs of such small-scale mine leases.
  - They have also been charged with ECs for mining in clusters, where the cluster size is greater than five hectares but less than 25 hectares, with no individual lease being more than five hectares.
- The amendment also outlined certain environmental safeguards:-
  - Development of a district survey report (DSR)and small scale mining in a clustered manner. It was noted that the DSR shall be prepared for each minor mineral in the district separately.
  - The main objective of the preparation of DSR is the identification of areas where mining can be allowed and also where mining must be prohibited due to geological and physical limits.
  - The report will also help in calculation of annual rate of replenishment and allowing time for replenishment after mining in an area.
  - The DSR shall form the basis of application for EC, preparation of reports and appraisal of projects. The DSR shall be updated once every five years.

Why there is a need to reconsider the green clearance mechanism:-
- District Expert Appraisal Committee :-
  - National green tribunal strictly noted that the District Expert Appraisal Committee (DEAC), which is entrusted with evaluating EC proposals for small-scale mining projects of minor minerals, comprises of officers with no expertise or scientific knowledge to assess environment implications.
  - NGT has also questioned the procedure laid down by the Union ministry for granting Environmental clearance to small-scale mining projects.
  - The NGT observed that the 2016 Amendment has failed improve environmental safeguards for mining in small scale leases.
  - NGT also criticized that allowing the district authorities to evaluate sand mining proposals is also not suitable for the Sustainable Sand Mining Management Guidelines, proposed by the union ministry in 2016.

Way forward:-
- The Tribunal has emphasised that to ensure environmentally responsible mining, the Centre should develop guidelines in spirit of the SC judgment that was given in 2012. The SC in its 2012 judgment in the matter of Deepak Kumar etc. vs State of Haryana & Ors. had emphasised the ills of unscientific sand mining and the importance to deal with it through proper regulatory mechanism.
- The NGT has also asked to demarcate mining area with pillars and geo-referencing should be done prior to start of mining. The project proponents (tehsildars) must ensure that the CCTV cameras, personal computer, Internet connection, power back up, access control of mine lease site; and arrangement for weight or approximation of weight of mined out mineral on basis of volume of the trailer of vehicle used at mine lease site are available
- The NGT asked the environment ministry to revise the procedure of the EC requirement requiring an EIA and public consultation to be done for all mining proposals involving leases more than five hectares.
- Authorities should also ensure the scanning of transport permit and uploading on server against the mine lease area. Each receipt should be preferably with pre-fixed quantity, so the total quantity gets determined for the receipts issued. The state needs to establish a call centre and go for radio-frequency identification and GPS tracking of sand vehicles.

Q) NGT’s fine on Karnataka government for improper management of city’s lakes is a timely reminder to other states to take care of their water bodies. Discuss. (250 words)

**Financial express**

*Why this question*

*The article examines the recent decision of NGT of imposing fine on Karnataka government for mismanagement of city lakes and the larger issue it raises about the mismanagement of water*
bodies and sewage disposal in general. This question would help you understand the issue and think over the way forward.

Key demand of the question

The question expects us to first highlight and explain the reasons behind the order of NGT of imposing fine on Karnataka government. Thereafter, it expects us to highlight the poor condition of water bodies and improper waste disposal which causes such condition of your water bodies across the states. Next, we need to bring out the steps required for proper management of such lakes and provide 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 – Highlight the decision of NGT – The National Green Tribunal’s order earlier this month, imposed a Rs 50-crore fine on the Karnataka government and a Rs 25 crore one on the city’s municipal government for negligence that led to the city’s lakes sporting flotillas of toxic froth—and even catching fire in the case of Bellandur.

Body

Highlight the reasons behind NGT’s order

- BBMP had sanctioned illegal construction around a lake, in violation of an earlier NGT order, via a circular that was later withdrawn.
- NGT also pulled up the state government for its “apathy”, saying projects were being “sanctioned without ensuring preventive, restorative and controlling measures”.
- The NGT made note of how the state and the local governments’ failure to act has led to rampant encroachment—98% of lakes suffer from this—that has choked off recharging and the unchecked flow of untreated wastewater (90% of the lakes suffer from this; more than 35% of the sewage that flows into Bellandur is untreated).

Comment on the larger issues that the order raises – that of mismanagement of city lakes and poor waste disposal. Highlight the situation across the country. Non-profit water pollution monitor WaterAid estimates nearly 80% of surface water in India—rivers, lakes, canals, etc—to be highly polluted, mostly due to untreated domestic sewage flowing into these water bodies from urban areas and, in the case of some rivers, due to untreated effluent from factories

Discuss the solutions that can mitigate this issue

Conclusion – Highlight that NGT’s decision should serve as an eye opener for other states to take care of the water bodies.

Background:-
- Recently the National Green Tribunal’s order imposing a Rs.50-crore fine on the Karnataka government and a Rs.25 crore on the Bengaluru city’s municipal government for negligence that led to the city’s lakes sporting flotillas of toxic froth and even catching fire in the case of Bellandur is the right step which was needed in environmental governance.

Reasons behind the deteriorating situation of water bodies in India :-
- Karnataka:-
  - In March 2017, the Bengaluru municipality had sanctioned illegal construction around a lake, in violation of an earlier NGT order.
  - Projects were being sanctioned without ensuring preventive, restorative and controlling measures. Failure of state and the local governments to act has led to rampant encroachment i.e., 98% of lakes suffer from this and this has choked off recharging and the unchecked flow of untreated waste water.
  - Of the city’s 125 lakes covered in a study by the Centre for Ecological Studies at IISc, only four were found to be in a fair state while 25 were either dying or dead.
Non-profit water pollution monitor WaterAid estimates nearly 80% of surface water in India—rivers, lakes, canals, etc to be highly polluted, mostly due to untreated domestic sewage flowing into these water bodies from urban areas and, in the case of some rivers, due to untreated effluent from factories.

According to the recent finding of the Central Pollution Control Board that the number of critically polluted segments of India’s rivers has risen to 351 from 302 two years ago is a strong indictment of the departments responsible for environmental protection.

The data show that the plethora of laws enacted to regulate waste management and protect water quality are simply not working.

The study by CPCB also underscores the failure of many national programmes run by the Centre for river conservation, preservation of wetlands, and water quality monitoring.

The failed efforts to control pollution are all too evident in Maharashtra, Gujarat and Assam, which account for a third of the degraded river segments. Their problems are worsened by the poor infrastructure available in a large number of cities and towns located near rivers.

Managing sewage requires steady funding of treatment plants for all urban agglomerations that discharge their waste into rivers, and also reliable power supply

A primary cause is the quantity of sewage generated by cities and towns along polluted stretches.

Country’s waterways have also suffered badly in recent years, with vast quantities of municipal and industrial waste discharged into them every day.

Relentless dumping of waste and release of untreated effluents is posing a serious threat to the over 50 rivers in the country.

Ganga has been dammed, over-drained and sullied by sewage as well as industrial waste from the numerous towns and cities which dot the river bank.

Government has focussed on cleaning the Ganges but there has been little progress so far on a project which has defeated successive administrations, despite substantial funding.

Way forward:-

The green tribunal incentivised the states to act against polluters in a “polluter pays” model. Hefty fines, for lax state and local governments as well as private sector polluters, will go a long way in ensuring action against pollution.

CPCB should be reporting more frequently on pollution, and carrying out intensive measures through State Pollution Control Boards to eliminate pollutants, starting with sewage and industrial effluents.

Low priority is accorded to enforcement of laws by the SPCBs and Pollution Control Committees. So the immediate plan should be to expand the supply of treatment plants. Sustained civil society pressure on governments is vital to ensure that this is done in a time-bound manner.

On the industrial side, the plan to bring all liquid effluent discharge from textile units and tanneries to zero has to be pursued vigorously, giving industries the assistance to help them choose the best technologies for the recovery of waste water for reuse.

These measures are urgently needed to revive India’s many dying rivers, protect its agriculture, and prevent serious harm to public health from contaminated water.

All state governments must make it mandatory to have rain water harvesting techniques in government as well as private buildings and make roof water and surface harvesting mandatory.

Include embankments, embankment roads, and roads on either side of the river need to be developed as greenways, with walkways, cycle paths and recreational centres to facilitate the link between citizens and the river.

Rejuvenation of wetlands:-

These wetlands can store millions of gallons of flood water and recharge ground water and also enhance the river flow during lean period

Reforestation and protection of forested catchments:-

Forested catchments reduce soil erosion and siltation of the river, they regulate stream flows and micro climate. A protected catchment automatically means lesser silt in rivers

Vegetated and protected riparian banks. These protect the river banks, reduce erosion and maintain water quality.
Q) There is a need to foster the process of climate adaptation in agriculture, which involves reshaping responses across both the micro- and macro-level decision-making. Discuss. (250 words)

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**Why this question**

*Agriculture is increasingly becoming susceptible to climate change and dependence of around half of India’s population on agriculture exhorts us to pursue climate adaptation and response at both micro as well as macro levels. The article provides a scientific discussion of the issue and suggests several solutions in this regard.*

**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 need to foster process of climate adaptation in agriculture at both micro and macro level, what it means and how to do it.*

**Structure of the answer**

**Introduction—** write a few introductory lines about the need to adopt climate resilient agriculture. E.g Climate adaptation actions in agriculture are closely intertwined with rural developmental interventions, calling for a holistic new paradigm etc.

**Body-**

Discuss about the need for climate adaptation in agriculture and discuss what needs to be done at the micro level as well as the macro level. E.g India, with its diverse agro-climatic settings, is one of the most vulnerable countries. Its agriculture ecosystem, distinguished by high monsoon dependence, and with 85% small and marginal landholdings, is highly sensitive to weather abnormalities; There has been less than normal rainfall during the last four years, with 2014 and 2015 declared as drought years;. Research is also confirming an escalation in heat waves, in turn affecting crops, aquatic systems and livestock; The Economic Survey 2017-18 has estimated farm income losses between 15% and 18% on average, which could rise to 20%-25% for unirrigated areas without any policy interventions;

At the micro-level, Need for Corroborating traditional wisdom and various age-old notions about weather variations with climate assessments and effective extension and promoting climate resilient technologies will enhance; Climate exposure can be reduced through agronomic management practices such as inter and multiple cropping and crop-rotation; shift to non-farm activities; insurance covers; up-scaling techniques such as solar pumps, drip irrigation and sprinklers etc.

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

**Background:-**

- The Sixth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC) on Global Warming at 1.5°C distinctly propagates the need to strengthen and enhance existing coping capacity and to remain committed to the objectives of the Paris Agreement

**Why climate adaptation to agriculture is necessary :-**

- India, with its diverse agro-climatic settings, is one of the most vulnerable countries.
- India’s agriculture ecosystem is distinguished by high monsoon dependence. Even the recent monsoon season (June-September) ended with a rainfall deficit of 9%, which was just short of drought conditions.
- With 85% small and marginal landholdings, is highly sensitive to weather abnormalities.
- There has been less than normal rainfall during the last four years, with 2014 and 2015 declared as drought years.
- Research is also confirming an escalation in heat waves, in turn affecting crops, aquatic systems and livestock.
• The Economic Survey 2017-18 has estimated farm income losses between 15% and 18% on average, which could rise to 20%-25% for unirrigated areas without any policy interventions. These projections underline the need for strategic change in dealing with climate change in agriculture.

Way forward:-
• **Microlevel :-**
  o Traditional wisdom, religious epics and various age-old notions about weather variations still guide farmers responses which could be less effective. Corroborating these with climate assessments and effective extension and promoting climate resilient technologies will enhance their pragmatism.
  o Climate exposure can be reduced through agronomic management practices such as inter and multiple cropping and crop-rotation, shift to non-farm activities, insurance covers up-scaling techniques such as solar pumps, drip irrigation and sprinklers.
  o There is an urgent need to educate farmers, reorient Krishi Vigyan Kendras and other grass-root organisations with specific and more funds about climate change and risk-coping measures.
• **Macro level :-**
  o Climate adaptations are to be mainstreamed in the current developmental framework. Mainstreaming adaptation into the policy apparatus has the potential to improve the resilience of several development outcomes. **The approach demands coherence across multiple policy scales as required for developing possible synergy between micro-macro levels and addressing several cross-cutting issues.**
  o Expansion of extension facilities, improving irrigation efficiency, promotion of satellite-enabled agriculture risk management, creating micro-level agro-advisories, providing customised real time data, and capacity building of stakeholders are some initiatives towards building greater resilience in agriculture.
  o Interventions such as the Pradhan Mantri Krishi Sinchayee Yojana, Pradhan Mantri Fasal Bima Yojana, Soil Heath Card, Paramparagat Krishi Vikas Yojana, National Agriculture Market, or e-NAM, and other rural development programmes are positive interventions that can address the vulnerability of farmers and rural households.
  o There are also exclusive climate and adaptation schemes being operationalised, such as the National Innovations on Climate Resilient Agriculture (NICRA), the National Mission for Sustainable Agriculture (NMSA), the National Adaptation Fund, and the State Action Plan on Climate Change (SAPCC). **It is desirable to have a cultural change wherein some of the components under these schemes can be converged with major rural developmental programmes, which will further enhance their effectiveness at the grass-root level.**
    ▪ The SAPCC is an important platform for adaptation planning but it needs to evolve further in terms of climate-oriented regional analysis to capture micro-level sensitivity and constraints.
  o Moreover, convergence of climate actions with ongoing efforts and several Central schemes with similar mandates is a must.
  o Greater expertise and consultations are required for a systematic prioritisation of actions and fiscal prudence for building climate resilient agriculture.

Q) As per a medium term proposal of Niti Ayog, the only viable solution to dealing with the massive waste problem in India is to incinerate the waste of go from waste to energy. Do you agree with such a view. Discuss (250 words)

Livemint

**Why this question**

*The article discusses the huge burden of waste management that has fallen upon the cities and our sheer inadequacy in managing this deluge of waste. The article also discusses the scope and limitations of the waste management technologies that are used today. Hence this article provides good resource for dealing with questions related to waste management.*

**Key demand of the question**

*The question expects us to bring out the challenges of waste management being faced by the cities. Thereafter, we need to examine the causes why the issue of waste management is such a problem*
and critically examine whether incineration is the right way to go forward. Next, we need to discuss the various technologies in use for waste management. Finally, we need to provide a 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** – Mention that With rapid urbanization, industrialization and an explosion in population in India, solid waste management will be a key challenge for state governments and local municipal bodies in the 21st century.

**Body**

Explain the magnitude of the problem – India’s cities already generate over 150,000 tonnes of municipal solid waste every day, with Mumbai being the world’s fifth most wasteful city. The waste heaps that dot the edges of India’s cities are set to double in size by 2025. Only one-third of the waste undergoes even rudimentary treatment, according to the urban ministry’s optimistic assessment, and hardly any of it is segregated, which would make processing easier. Highlight that according to the Delhi-based Centre for Science and Environment, cities are already beginning to run out of land on which to dump their waste and have begun throwing it in the backyards of smaller towns, suburbs and villages.

Explain the reason behind the problem assuming massive proportion – apathy shown by municipal authorities, problems in processing of waste etc. Discuss the debate surrounding Niti ayog’s proposal and evaluate alternate technologies.

Discuss the scope and limitation of the various technologies in use to deal with solid waste management such as bioremediation, composting etc.

**Conclusion** – Highlight that business as usual approach will not work and new methods have to be tried. Provide a way forward.

**Background :-**

- Recently the South Delhi Municipal Corporation (SDMC) took the radical step of issuing notices to a slew of residents who did not segregate their household waste which is perhaps, the first time any civic body in the country has launched an attempt to impose fines on citizens.

**Waste problem in India :-**

- India’s cities already generate over 150,000 tonnes of municipal solid waste every day, with Mumbai being the world’s fifth most wasteful city.
- The waste heaps that dot the edges of India’s cities are set to double in size by 2025. Only one-third of the waste undergoes even rudimentary treatment, according to the urban ministry’s optimistic assessment, and hardly any of it is segregated, which would make processing easier.
- The volume of waste generated in the cities is projected to reach 125 million tonnes per annum by 2031 and the disposal system today focuses on collection and transportation of this waste only.
- Waste segregation being virtually absent has resulted in resource wastage, environmental pollution and health/safety hazards, due to leaching and methane generation from wet solid waste in the landfills.
- Due to unscientific disposal, GHG emissions from solid waste in India increased by 3.1% yearly between 2000 and 2010.
- Unsegregated waste also undermines the waste-to-electricity option of disposal, given high wet waste content pushes the overall calorific value to a level below the required threshold.
- While 95 commercial composting plants exist, only 14% of the capacity is utilised.
- Nearly 75% of the waste generated in India is not treated and openly dumped onto fallow lands, leaching lethal chemicals into the ground, toxic fumes into the air and poison into the water systems. The critical impact on public health is immeasurable and can be witnessed as a rapid rise in pulmonary diseases, cancer occurrences, birth deformities etc.
- According to World Health Organisation, 22 types of diseases can be prevented or controlled by improving solid waste management in India.
NITI Aayog proposal:-
- By burning the waste, a small amount of energy could also be produced. Currently, about 3% of urban India’s daily garbage output gets fed into waste-to-energy incinerators. A minuscule amount of energy is generated.

Criticism:-
- Unlike the Western world, a large chunk of India’s waste is still organic kitchen waste almost 40% of the total volume. Since segregation of waste is yet to become a reality, incineration is a highly inefficient solution.
- In the Indian context, there is also very little certainty on whether the harmful gases, which are a byproduct of incineration, are adequately contained and treated.
- India had no operational sanitary landfill though these are mandated by the SWM Rules.
- Solid waste management Rules directs urban local bodies (ULBs) to fix and levy user charges but this is hobbled by the fact that most state governments have not devolved that power to local governments.
- India’s waste predicament presents numerous social and environmental challenges for urban local bodies (ULBs), whose prerogative covers Municipal solid waste management.

Ways to address it:-
- Global practices:-
  - Japan:-
    - India could learn from Japan that managed to reduce its waste generation by a fifth over 2000-2013 by promoting Extended Producer Responsibility.
    - Its Containers & Packaging Recycling Act aims at reducing the generation of packaging waste by mandating thinner and lighter packaging, use of returnable containers, and even recycling packaging from imports made by a firm.
    - It also places some responsibility on consumers.
    - The Automobile Recycling Act of 2002 requires automobile buyers to deposit a recycling fee and mandatorily return an end-of-life vehicle to the dealer.
  - South Korea:
    - Ingenious approaches have been promoted across the world for reducing resource consumption and increasing resource recovery from waste materials.
    - The Korean government has promoted the “SSSR Campaign” (Ahnabada Campaign), which stands for “Save, Share, Swap, and Reuse,” to bring the reuse of goods into everyday habits, and has hosted marketplaces for exchanging or trading second-hand goods.
    - The pragmatic ‘Zero Waste’ philosophy promotes absolute recycling and reuse of all products, restricting the amount of dumped waste to near zero.
    - It emphasises on designing and managing products and processes to reduce the volume and toxicity of waste and materials, conserving and recovering all resources, and not burning or burying them.
    - Implementing Zero Waste would ideally eliminate all discharges to land, water, or air that may be a threat to planetary, human, animal or plant health. The philosophy ultimately focuses on eliminating waste.
  - An effective waste management strategy must figure waste segregation at source and appropriate treatment of different components.
  - The wet solid waste, primarily biodegradable organic waste, can be then processed in a decentralised manner through composting and biomethanation.

Conclusion:-
- As India’s own economy grows faster and further, the country will face an insurmountable waste crisis, unless the government puts a high priority on waste management. We must demand our right to live in a clean and healthy natural environment.

Q) Discuss the potential of agroforestry in India and also discuss the factors impeding the growth of agroforestry. (250 words)

Reference
Why this question
India has less than the desired forest cover and agroforestry provides scope for not only complementing the forest cover but also supplement the farmers’ income. The MoEF & CC has recently issued a policy document in this regard. In this context it is essential to understand the scope of agroforestry in India and hurdles faced by it.

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 and scope of agroforestry in India and also the reasons decelerating its growth and development

Structure of the answer

Introduction— write a few introductory lines about the Agroforestry in India. E.g agroforestry system is usually combination of tree crop, food crop, livestock rearing along with land based livelihood practices like bee keeping, pisci-culture in farm ponds, vermicomposting, organic farming of vegetables etc.

Body-
Discuss the potential and scope of agroforestry in India. E.g agroforestry system not only gives a stability to farm income but also enhances it due to cash flow from multiple streams; In such an integrated system, if food crop which is vulnerable to climate get affected, farmers can get assured income from other sources; Other livestock rearing or livelihood means can give him some assured farm income. In India, more than 50% land of its Geographic Area is under cultivation; Agro-Forestry/Farm Forestry, which is a subset of TOF, has the maximum potential in extension of green cover etc.

Discuss the factors impeding growth of agroforestry in India . E.g Inhibition among farmers, especially small and marginal farmers, regarding shade of tree canopies, root competition, birds damage leading to reduced crop production ; Trees as obstacle in mechanized farming; Undue harassment to farmer for obtaining felling permit from competent authorities; Complex procedure for obtaining Transit Pass Non-availabilities of organized trade in wood; Absence of wood processing units in the neighborhood; Lack of proper agro-forestry extension; Getting Quality Planting Material etc.

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

Background:-
- Agro-forestry can be defined as the inclusion of trees in farming systems and their management in rural landscapes to enhance productivity, profitability, diversity and eco-system sustainability. It is practiced in India traditionally over thousands of years.
- It embraces both disciplines like “agriculture” and “forestry”. Agroforestry is increasingly seen as a bridge and a leader of innovation in both farming and forestry.

Potential of agro forestry:-
- The accurate estimation of agro-forestry area can be done through geo-spatial technology which is an integration of GIS, Remote Sensing and GPS and three are used for different purposes— GIS used for geo-referencing, masking of area and for area estimation, GPS data used for collecting locations of agro-forestry from the ground and Remote Sensing data to create Land Use and Land Cover map and delineation of other features.
- Scientists have projected area of agro-forestry in 2050 as 54 m ha. Even if the projected area of Agro-Forestry after 30 years also considered at 33% of present combined cultivable area, current and old fallow land appears to be grossly underestimated, with proper extension methodologies and relaxation of regulatory regime, Agro-Forestry will be practiced over 70 m ha in next 20 years as only climate resilient farming option.
Agroforestry system not only gives a **stability to farm income** but also enhances it due to cash flow from multiple streams

- In such an integrated system, if **food crop which is vulnerable to climate get affected**, farmers can get assured income from other sources
- Agro-Forestry/Farm Forestry has the **maximum potential in extension of green cover etc.**
- Agroforestry can be a **solution to supplying India with timber and fuel wood without further deforestation or reliance on expensive wood imports.**
- Agroforestry can also **provide green fodder and supply fruits, oilseeds and other useful commodities important for nutrition and farm incomes.**
- There are environmental benefits too from agroforestry, including the ability of trees to **sequester carbon dioxide, conserve biodiversity and enhance soil health**

**Factors impeding the growth of agroforestry:**

- Inhibition among farmers, especially small and marginal farmers, regarding shade of tree canopies, root competition, birds damage leading to reduced crop production
- Trees as obstacle in mechanized farming
- Undue harassment to farmer for obtaining felling permit from competent authorities
- Complex procedure for obtaining Transit Pass Non-availabilities of organized trade in wood
- Absence of wood processing units in the neighborhood
- Lack of proper agro-forestry extension
- Getting Quality Planting Material
- Inadequate network of Forest Nurseries in the region
- Vulnerability of tree saplings from grazing and browsing by stray animals, particularly after crop-harvesting period
- Low survival in tree crops due to pests and diseases
- Absence of Market Information System
- Predominant Buyers Market
- Lack of proper agro-economic model and their proper Demonstration
- No buy back guarantee from wood based Industries
- Lack of entrepreneurship among farmers and their tendency of risk-avoidance
- Heavily dependent on Government subsidies.
- Lack of uniformity in policies and regulations relating to felling and transporting farm-grown timber and other products in different states. Agroforestry ventures are not covered under agricultural insurance schemes or entitled to marketing support, and cannot access the soft bank loans available for crop farming.

**Way forward:**

- A national agroforestry policy is needed that should address many of these issues and hopefully “optimize exploitation of the massive socio-economic and environmental potential of agroforestry”.

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Q) The coercive top down approach of managing protected areas has led to socio cultural disruptions without much benefit for conservation efforts. Discuss. (250 words)

**Key demand of the question**

The question expects us to bring out the issues associated with top down approach of managing protected areas and how it causes socio cultural disruptions and how effective such protected areas are in conservation. We need to provide a fair and balanced opinion 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 what are protected areas and highlight that Protected areas (PAs) are the main strategy to face the global deterioration of ecosystem goods and services due to human causes.
Body

Explain that global agreements are giving PAs a starring role in many aspects other than biodiversity conservation. One extended mission included in its most updated definition is providing while preserving ecosystem goods and services and associated cultural features other than biodiversity.

Discuss that the socio economic objectives that are expected to be served by legislations related to protected areas are unable to meet the needs of those dependent on it. Bring out the case of top down legislations like forest rights act or the way tribal population are pushed at the margins of protected areas.

Discuss the results of such protection measures in biodiversity conservation

Conclusion – give your view on the efficacy of such measures and discuss the way forward.

Background :-

- More than half of protected areas the world over are inhabited by local populations, like in India, where human populations live in over two-thirds of protected areas.
- Protected areas (PAs) are the main strategy to face the global deterioration of ecosystem goods and services due to human causes.

Management of protected areas led to socio cultural disruptions:-

- Today Protected Areas are often under threat from ad hoc and heavily intrusive ‘management’ that involves unscientific habitat manipulation, earth moving and construction...
- Conflicts often arise regarding compensation for cattle killed by carnivores in the reserves or for damages caused to crops by wild animals
- The PAs have not been integrated through forested corridors (for maintaining genetic continuity) or establishing complimentary multiple use areas. In many cases the Protected areas remain as isolated islands.
- There is also lack of integration of protected areas with surrounding areas or buffers. Vaccination of local domestic cattle to protect the wildlife is rarely done.
- Insufficiency of funds and facilities, lack of public awareness, limited jurisdiction and training of staff, lack of work force and lack of necessary information base make the functioning of Protected areas a difficult task.
- Environmentally unsustainable activities take place both within and outside forest are. Outside Protected areas there is limited recognition of conservation values. For example, widely distributed wetlands outside forests are important for wildlife conservation, but there are no arrangements to manage and provide a safe-shelter for wildlife in such areas.
- Protected areas even failed to conserve biodiversity. This top-down conservation approach has led to management decisions seriously threatening the livelihood and cultural heritage of local people, such as the resettlement programme established to move people from villages inside the park, and the reduction of access to resources and traditional rights.
- Often in protected areas, the lack of guaranteed access to resources is an impediment to a truly participatory approach at the community level.
  - The lack of security in land ownership and the erosion of local statute laws have diminished the capacity of communities to stand up to outsiders, like poachers and wood smugglers, and have also contributed to the loss of biodiversity.
  - In India, moreover, communal land surrounding villages is being increasingly privatised, which leads to the dwindling of the little parcels of communal land available to farmers.
- In the wake of the creation of protected areas, local communities have frequently been subjected to eviction, often with grave consequences to their identity and future development. Indeed, eviction also creates a kind of ‘socio-cultural stress’ and relocated populations lose not only the economic base of their survival, but also undergo a considerable reduction of their cultural heritage.
- Forest officers are often seen by the local communities as authoritarian individuals who have the arbitrary power to punish and to deny access to resources.

Way forward:-

- The bottom-up management approach will enable communities surrounding protected areas to be actively involved in the management and administration of their regions.
- Conservation policies should shift from the current focus on control and sanction to a growing emphasis on rural development, an essential component of every conservation programme. A change in the attitude of the conservation authorities vis-à-vis local communities is essential.
There is a need for protected area managers to put in place measures that can aid communities to enhance their living standards for example improved educational and infrastructure facilities.

Alternative development options (e.g., skills acquisition training in tailoring, sustainable farming, carpentry, etc.) can provide a background for the shift from dependence on the natural environment to sustainable forms of livelihood development.

Developing skills among forest officers to work with communities, enhancing forms of cooperation and facilitating a learning process in a spirit of mutual trust and respect is very important in order to promote effective conservation measures.

The promotion of a participatory approach between forest authorities and local communities requires a wider process of reorienting institutional policies, procedures and development practices.

NGOs and grass root organizations have a greater role to play not only to act as the interface between the forest department and community but actually being a part of monitoring and evaluation process of eco development programmes. Overall increased awareness should be created towards importance of biodiversity conservation and wildlife protection.

Q) Evaluate whether there is a need to set up a regulator for conducting environmental impact assessment? (250 words)

Key demand of the question
The question expects us to first discuss the issues faced in EIA process which would necessitate the creation of a regulator. Thereafter, we need to highlight that other committees have also recommended creation of such a regulator, the role it would have and the likely impact of the actions of such a regulator.

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.

Structure of the answer
Introduction – Highlight that eia process suffers from several deficiencies which need to be taken care of.

Body
Explain the need for a regulator by pointing out towards the deficiencies in eia process.

Highlight that parliamentary standing committee in December 2014 had recommended the government to set up National Environment Management Authority (NEMA) at the central level and State Environment Management Authority (SEMA) at state level as full time processing, clearance and monitoring agencies.

Discuss what the role of such a regulator would be – What is required is a regulator at the national level having its offices in all the states which can carry out an independent, objective and transparent appraisal and approval of projects for environmental clearances and which can also monitor the implementation of the conditions laid down in environmental clearances.

Discuss the impact that the regulator would have – Bring objectivity in the entire process of EIA will oversee the process of accreditation of consultants, evaluate the reports and appraisal of the projects.

Conclusion – give your view on the need for a regulator and discuss way forward.

Background:-

• Compromised decision-making on development and infrastructure projects have already wrecked the lives of rural and forest dwelling people. Mining and industries pollute their water sources and farmlands and prohibit their access to forests.
SECURE SYNOPSIS

What is EIA?

- It is a study to evaluate and identify the predictable environmental consequences and the best combination of economic and environmental costs and benefits of the proposed project.
- On the basis of EIA, an Environmental Management Plan (EMP) is prepared, which is a description of the means by which the environmental consequences as pointed out in the EIA will be mitigated. Together the whole draft is termed as EIA-EMP report.
- **Environmental Impact Assessment Notification (EIA), 2006**:  
  - The EIA notification categorizes all kinds of developmental projects in various schedules.
  - The EIA notification establishes four stages for obtaining Environmental Clearance.
    - Screening
    - Scoping
    - Public hearing
    - Appraisal

Why there is a need for a regulator to conduct EIA:-

- **Supreme court’s view** :-
  - The Supreme Court earlier ordered the government to appoint a national regulator which would take up comprehensive environmental impact assessment (EIA) of projects.
  - According to the SC order, the regulator will carry out independent, objective and transparent appraisal and approval of projects for environmental clearances.
- **Parliamentary standing committee in 2014** had recommended the government to set up National Environment Management Authority (NEMA) at the central level and State Environment Management Authority (SEMA) at state level as full time processing, clearance and monitoring agencies.
- **Benefits of having a regulator**:  
  - The regulator will also monitor the implementation of the conditions laid down in the clearances and impose penalties on polluters. While exercising such powers, the regulator will ensure the National Forest Policy, 1988 is duly implemented.
  - The regulator will bring objectivity in the entire process of EIA and will oversee the process of accreditation of consultants, evaluate the reports and appraisal of the projects.
- **There are issues with the way EIA is conducted**:  
  - India has experienced major problems with the way environment and forest clearances are granted. It has had to deal with poor Environment Impact Assessment (EIA) reports and bad decisions of the Forest Advisory Committee which recommends diversion of forestland for developmental projects.
  - India has found conflict of interest in the way an EIA report is prepared and forest area is identified, demarcated and finally diverted for non-forest uses.
  - Less accountability :-
    - The regulators EAC, SEAC or SEIAA are not accountable to anyone. There are now many cases in which the clearances granted by regulators have been rejected by the courts.
  - Less monitoring:-
    - Hardly any post-clearance monitoring is done.
  - Less manpower:-
    - The six regional offices of the MoEF that are supposed to enforce the clearance conditions do not have the human power or the resources to do this.
  - **Over involvement of Public hearing consultants**:-
    - In the public hearing meeting, the consultants should not be allowed to have a dominant say, except responding to the issues of the people. On the contrary, they get involved in public hearings beyond requirements and thus mislead the local people.
  - **Unaddressed issues persist**:-
    - The issues raised by people in public hearings remains unanswered and they do not know what happens to the issues, nor do they know if the issues raised are reflected in public hearing reports that is presented to Ministry of Environment and forests
  - **Lack of awareness**:-
    - There is a gross lack of awareness among the local people, about the process of EIA, its significance for them, role of various players and their own rights and responsibilities.
Moreover there is a communication gap between authorities and local people because the notice for Public hearing is issued in local newspapers only and no separate notices are sent to individual concerned panchayats.

Lobbying efforts have ensured that several sectors, including real estate construction, are altogether exempted from public hearings giving urban communities no say in how their cities are shaped and reshaped.

There are no public hearings held for urban construction projects, and governments assume that citizens have nothing to say about them.

- **Unavailability of EIA in local languages**
  - Unlike environment clearance, there is no impact assessment report required for forest diversion. There is no assessment of the impact the forest diversion on the ecology, water resources or the people living in the area. None of the reports are made available in the public domain.
  - **Very few states have mapped their coastal zones and developed integrated coastal management plans.** As in the case of environment clearance, there is a conflict of interest in preparing the EIA report and demarcating the coastal areas.
  - Multiplicity of regulations and regulatory authorities help unscrupulous elements in the industry and the government. **But it is bad for the environment and economic growth.**

**Way forward:-**

- There is a need for a **second-generation reform for environmental regulation**, which will safeguard environment and community rights as well as reduce time and transaction costs for the industry.
- In this reform process, there is certainly a possibility of **setting up a national regulator that can consolidate all clearances** i.e., environment, forests, wildlife and coastal so that the project’s impact is fully understood and decisions taken.
  - This regulator should be given enough power and resources to do proper post-clearance monitoring and assessment and also impose fines and sanctions.
  - The regulator must be transparent and accountable and promote deepening of public assessment, participation and scrutiny.
- **Collaboration between public and private sector is needed:-**
  - EIA and SEIAA, together with the SPCB, could do more to regulate pollution in Delhi and other eight Indian cities which are among the most polluted cities in the world based on particulate matter (PM) 2.5 levels, according to the World Health Organization.
- **Developing stronger centre-state, intra- and interstate collaborations would be beneficial for knowledge and resource sharing** and improving technical, financial and administrative capabilities across states.
- A critical evaluation of all high polluting firms should be undertaken in order to assess and accordingly include all relevant firms into the regulatory process.
- It is essential to reassess the inclusion of all relevant industries, including the automobile industry, for the EIA process. Regular monitoring and reporting should be mandatory.
- It is necessary to enhance responsible and effective governance and judicial processes to be more conducive to improve the implementation of regulations.
- Ensuring public consultations and representations and engagement with civil society and allied organisations would be beneficial for ensuring compliance with regulations.
- In any future reforms, it would be beneficial to consider extending EIA processes to be applicable to small and medium enterprises, as it can contribute greatly towards achieving India’s goals for environmental sustainability.

**Q** At the recently concluded COP24, key issues of concern for the poorest and developing nations were diluted or postponed. Critically analyze. (250 words)

**Why this question**

*With the framing of rulebook at Katowice, the need of the hour is to critically analyze the provisions to see whether they have enough concrete steps laid out in them to mitigate the disastrous consequences of climate change.*
**Key demand of the question**

The question expects us to discuss how the Katowice rulebook has shaped up and whether it has sufficient provisions related to equity, finance and technology transfer, loss and damage etc to keep the interest of poorest and developing countries in mind.

**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** – explain about COP24 and its purpose. Highlight that a rulebook has been framed as an end result.

**Body**

Discuss the various outcomes of the summit and examine the issues involved

- There is little to no finance available for poor and developing nations. The details on funding and building capacity have been postponed. References to “equity” in the draft rule book were erased
- Poor and developing countries whose greenhouse gas emissions have been low or negligible will bear the brunt of warming effects. Whether or not funds will be replenished even for the implementation of the current NDCs is unclear. Funds for finance, better terms for new technologies to be transferred to developing and vulnerable countries, and economic and non-economic support for loss and damage and their equitable moorings in the text have been eliminated, minimised or footnoted etc

Give the other point of view as well

- Under the Paris Agreement, states have complete autonomy on the nature and type of climate actions they choose to take, subject to the expectation that they represent a progression on past actions. However, the rules now require them to provide detailed information of their actions. If states have absolute economy-wide targets, they need to provide quantifiable information on their reference points for measurements, the gases covered, their planning processes, assumptions and methodological approaches, how they consider their contribution as fair and ambitious, and how it contributes to the objective of the regime. Etc

**Conclusion** – give your fair and balanced opinion on the significance of Katowice rulebook and discuss the way forward.

**Background:-**

- The 1.5 Degree Report, which was produced by the Intergovernmental Panel on Climate Change in 2018, showed that the earth is close to a climate catastrophe.

**Developing nations issues were tackled through rule book :-**

- The Paris Rulebook, agreed at the UN climate summit in Katowice, Poland, gives countries a common framework for reporting and reviewing progress towards their climate targets.
- The world will now be able to see how much the world is lagging behind on the necessary climate action.
- A key element of the Paris Agreement is the Global Stocktake which is a five-yearly assessment of whether countries are collectively on track to meet the Paris Agreement’s goals to limit global warming. The new rulebook affirms that this process will consider “equity and best available science”.
- The new rules allow a degree of flexibility for the most vulnerable countries, who are not compelled to submit quantified climate pledges or regular transparency reports. All other countries will be bound to report on their climate action every two years, starting in 2024.
- **Finance:-**
  - The new rulebook defines what will constitute “climate finance”, and how it will be reported and reviewed.
Developed countries are now obliged to report every two years on what climate finance they plan to provide, while other countries in a position to provide climate finance are encouraged to follow the same schedule.

- **Katowice rules perform several important functions** :-
  - They seek to instil discipline in a process governed by “national determination”. The rules now require them to provide detailed information of their actions.
  - The rules flesh out the obligations of states identified in the Paris Agreement, and make them meaningful.
    - For instance, the Paris Agreement contained a general obligation for developed countries to report biennially on their provision and mobilisation of climate finance.
  - The rules operationalise the key processes established by the Paris Agreement i.e., a “global stocktake” and a compliance regime that seek to impose accountability and facilitate implementation.
    - The transparency framework requires states to report on indicators for measuring progress in achieving their targets, which is significant as the Paris Agreement does not impose a binding obligation on states to achieve their targets.
    - The rules allow developing countries to self-determine the reporting flexibility they need. Developing countries, with capacity constraints, can choose both how often and in what detail to report. They will also be provided support in addressing these capacity constraints.
  - The *Talanoa Dialogue*, the alarming IPCC 1.5°C Report, and various catastrophic climate events this year, have elicited promises from several countries that they will submit more ambitious actions by 2020.
  - The rules operationalising the Paris Agreement’s facilitative compliance and implementation mechanism seek to *inject accountability and facilitate implementation*. They permit a compliance committee to consider cases where countries have breached binding procedural obligations.
    - Thus, if a state does not submit a contribution every five years or a developed country does not submit its report on provision of finance, the committee will step in.
  - Katowice rules strike a fine balance between competing interests, create hooks for all parties to operationalise equity, and privilege the flow of information within the system.

**The rule book fails to prevent the dangerous effects of global warming and issues of concern for the developing nations were diluted** :-

- The rulebook offers little to compel countries to up their game to the level required.
- The rule book will offer no prescription for fixing things with respect to global stocktake. This risks failing to address one of the biggest issues with the Paris Agreement so far i.e., that countries are under no obligation to ensure their climate pledges are in line with the overall goals.
- Rather than directly asking for national climate targets to be increased, the Katowice text simply reiterates the existing request in the Paris Agreement for countries to communicate and update their contributions by 2020.
- The newly agreed rulebook carries a **substantial risk of double-counting** where countries could potentially count overseas emissions reductions towards their own target, even if another country has also claimed this reduction for itself.
- **Accounting rules for action in the land sector have also been difficult to agree.** Countries such as Brazil and some African nations sought to avoid an agreement on this issue.
- This **report was not suitably acknowledged** as an evidence-based cause for alarm by the U.S., Saudi Arabia and Russia, however.
- **Finance issues:**
  - There is little to no finance available for poor and developing nations. The details on funding and building capacity have been postponed.
  - Whether or not funds will be replenished even for the implementation of the current NDCs is unclear.
- **References to “equity” in the draft rule book were erased by the U.S. delegation.**
  - Article 9 (the provision of financial support to developing countries from industrialised nations) was ignored instead, there was an emphasis on carbon markets and insurance mechanisms.
- Poor and developing countries whose greenhouse gas emissions have been low or negligible will bear the brunt of warming effects.
Q) EIA process if followed diligently can lead to mitigation of several environmental concerns. Examine. (250 words)

Key demand of the question

The question expects us to explain the process of EIA and highlight how it can help in mitigating Environmental concerns. Thereafter, we need to explain the issues inherent in the eia process and how can we ensure that the process is followed diligently.

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 the EIA process. It is a study to evaluate and identify the predictable environmental consequences and the best combination of economic and environmental costs and benefits of the proposed project.

Body

Discuss the process followed in EIA and describe how they are meant to mitigate environmental degradation. Highlight that eia consists of identification of the consequences of the proposal, Prediction of the extent of consequences, evaluation of the predicted consequences. (Significant or not), mitigation of the adverse consequences, Documentation to inform decision makers what needs to be done. These steps if followed diligently would ensure that damages caused due to projects can be mitigated.

Highlight issues with EIA due to which the process has become less effective – screening and scoping not done well, misleading reports prepared, poor quality of EIA professionals etc, public hearing not conducted in several cases etc

Discuss the steps that need to be taken to bolster the eia process.

Conclusion – Emphasize on the importance of eia and the need for reforming the process to make it more effective.

What is EIA?

- It is a study to evaluate and identify the predictable environmental consequences and the best combination of economic and environmental costs and benefits of the proposed project.
- On the basis of EIA, an Environmental Management Plan (EMP) is prepared, which is a description of the means by which the environmental consequences as pointed out in the EIA will be mitigated. Together the whole draft is termed as EIA-EMP report.
- Environmental Impact Assessment Notification (EIA),2006:–
  - The EIA notification categorizes all kinds of developmental projects in various schedules.
  - The EIA notification establishes four stages for obtaining Environmental Clearance.
    - Screening
    - Scoping
    - Public hearing
    - Appraisal

Importance of EIA in disaster management:

- Environmental Impact Assessment (EIA) provides a framework for assessing the environmental impact of projects at their concept stage. It normally includes a detailed risk assessment.
- This process is established good practice and an integral part of most multilateral and bilateral donors as well as governments planning for infrastructure investment.
- EIA plays an important part in identifying technological hazard risks and ensuring that appropriate measures are taken to prevent accidents.
SECURE SYNOPSIS

- EIAs also **include the development of a ‘safety case’**, integrating safety concerns at stages of design, construction and operation.
- **Standard EIA guidelines include assessment of the potential impact of projects on natural hazards.**

**How EIA has been successful in reducing polluting activities in India :-**

- Decentralisation of environmental regulation **helps with better understanding of local environmental problems, to promote more transparent and efficient use of natural resources, as well as to increase local participation based on the homogeneity of common goals and priorities.**
- Findings indicate that the decentralisation process has led to an increase in the average regulatory stringency and has been successful in reducing the number of polluting activities.
- Decentralisation was **associated with relatively fewer firm births in states** with stricter environmental enforcement.
- Faster decision making and faster clearance of projects which is good for economy.
- Increased participation of lower executives in decision making on clearances.

**Why there is need to strengthen EIA:-**

- **Report Issues.**
  - **Screening and Scoping not well defined:-**
    - In the EIA notification 2006, there is a lack of clarity in overall conductance of the Screening process. As it is discretion of the State Level committee to decide which projects are B1 and which are B2, **many a times the bias of respective State Governments come into play. The Scoping process faces same types of issues because of lack of clarity in guidelines.**
  - **Misleading EIA reports :-**
    - Sometimes the EIA reports lack the expected degrees of honesty, owing to bias, corruption, exaggeration and wrong claims. Due to poor knowledge of the project area the agencies lift paragraphs and sentences from other sources, thus presenting contradictory, inconsistent and outdated information. **Moreover there is no process for punishing the agencies tabling such dishonest EIA reports.**
    - The EIA reports for the approved redevelopment projects in Delhi used plagiarised information and old baseline data.
  - **Insufficient EIA reports:-**
    - Agencies or project proponents also prepare incomplete EIA reports, which include incomplete surveys, arbitrary demarcation of EIA study area and unsubstantiated statements. Sometimes the impact with respect to flash floods, landslides, peak precipitation etc. round the year is grossly ignored in reports.
  - **Poor quality of EIA professionals:-**
    - This happens mostly when the proponents themselves conduct the EIA. They intentionally hire local and incompetent professionals to save cost over the whole process or some other vested reasons. These poor professionals prepare a poor quality of EIA reports.
    - Indian EIAs are never peer reviewed. EIA procedures are so corrupted by project interests that reputable scientists almost never agree to be on the Expert Appraisal Committees (EAC) after one experience.
    - In the 1990s, EAC committees used to have eminent environmentalists in them which is not the case now
  - **Public hearing issues**
    - **Lack of awareness:-**
      - There is a gross lack of awareness among the local people, about the process of EIA, its significance for them, role of various players and their own rights and responsibilities.
      - Moreover there is a communication gap between authorities and local people because the notice for Public hearing is issued in local newspapers only and no separate notices are sent to individual concerned panchayats.
      - Lobbying efforts have ensured that several sectors, including real estate construction, are altogether exempted from public hearings giving urban communities no say in how their cities are shaped and reshaped.
      - **There are no public hearings held for urban construction projects, and governments assume that citizens have nothing to say about them.**
SECURE SYNOPSIS

- **Unavailability of EIA in local languages:-**
  - Most of the time EIA reports are unavailable in local languages, thus local people are unable to decipher the reports, and are misled by the proponents. This can be interpreted as a clear violation of the right to information on their part.

- **Ignorance of officials:-**
  - The concerned officials for example those in Public Hearing committee are ignorant of their roles and responsibilities. Sometimes they don’t even get a copy of EIA report and it is passed without their consent, owing to gross corruption of the system.

- **Over involvement of Public hearing consultants:-**
  - In the public hearing meeting, the consultants should not be allowed to have a dominant say, except responding to the issues of the people. On the contrary, they get involved in public hearings beyond requirements and thus mislead the local people.

- **Unaddressed issues persist:-**
  - The issues raised by people in public hearings remains unanswered and they do not know what happens to the issues, nor do they know if the issues raised are reflected in public hearing reports that is presented to Ministry of Environment and forests.
  - Large constructions have been difficult to manage in India. The sector has systematically lobbied to be excluded from the environmental norms of the country and has been successful in carving out special privileges for itself in the environment clearance process.
  - Compensatory afforestation taken up in lieu of trees felled by projects is a failure due to poor survival rates of saplings and no monitoring.
  - Consultants for EIAs and the regulator’s own staff may have incentives to under-report pollution. They observe that independent verification of pollution reports through overlapping monitoring regimes may have similar effects, based on environmental audits.
  - Further, in weaker enforcement regimes, collusion between state-level authorities and regulated firms can also become an issue.

**Way forward:-**

- The burden of resource use in upcoming buildings or urban housing projects can be minimized in many ways.
  - Properly designed housing projects can provide numerous services such as purification of air and water, pollution control, mitigation of floods and droughts, re-generation of soil fertility, moderation of temperature extremes, climate change mitigation and enhancing the landscape quality.

- The NCEPC, revived in a form reflecting the times, could be the body entrusted with the preparation of a workable policy document on “Environment and Development”
  - It could be fashioned on the model of the White House Council on Environmental Quality functioning in the US directly under the President.
  - The Indian version could be under the Prime Minister advising him on matters referred to it by him or taken up by it suo moto for enquiry.
  - The reason for locating the Committee directly under the Prime Minister is that environment being an all-embracing term, the issues it would deal with would often be the concern of more than one ministry and their examination has necessarily to be undertaken with a perspective larger than what any individual department or ministry may have.

- The revival of the NCEPC need not be at the cost of the MOEF:-
  - While the former would act as a senior policy adviser to the Prime Minister, the latter could continue to look after its present duties and responsibilities.

- Centre could also be involved in enabling knowledge sharing of best practices between states, as well as in capacity building for resource constrained states to develop technical, financial and administrative performance. Without addressing the technical, financial and administrative needs of different states, increased environmental stringency could translate into excessive bureaucratic burden on firms.

- Collaboration between public and private sector is needed:-
  - EIA and SEIAA, together with the SPCB, could do more to regulate pollution in Delhi and other eight Indian cities which are among the most polluted cities in the world based on particulate matter (PM) 2.5 levels, according to the World Health Organization.

- Developing stronger centre-state, intra- and interstate collaborations would be beneficial for knowledge and resource sharing and improving technical, financial and administrative capabilities across states.
• A critical evaluation of all high polluting firms should be undertaken in order to assess and accordingly include all relevant firms into the regulatory process.
• It is essential to reassess the inclusion of all relevant industries, including the automobile industry, for the EIA process. Regular monitoring and reporting should be mandatory.
• It is necessary to enhance responsible and effective governance and judicial processes to be more conducive to improve the implementation of regulations.
• Ensuring public consultations and representations and engagement with civil society and allied organisations would be beneficial for ensuring compliance with regulations.
• In any future reforms, it would be beneficial to consider extending EIA processes to be applicable to small and medium enterprises, as it can contribute greatly towards achieving India’s goals for environmental sustainability.

Q) The recent amendments to the Indian Forest Act, 1927 will create new markets & jobs for poor communities. Critically analyze. (250 words)

downtoearth
downtoearth

Why this question
The centre brought an ordinance to the Indian Forests act a few months back and has been contemplating about the need to revise the act holistically and bring in a substantive legislation to make the act relevant for the present social, economic and environmental situation in India. In this context it is essential to analyze the amendments made by the ordinance passed by the centre.

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 recent amendments made in Indian Forest Act, 1927 and discuss how these amendments will help the environment and the people and also discuss the shortcomings/ pitfalls of the amendments. Based on our discussion we have to form a personal opinion on the issue.

Structure of the answer

Write a few introductory lines about the amendment made in Indian Forest Act 1927 E.g the Act seeks to consolidate the law relating to forests, the transit of forest produce and the duty that can be levied on timber and other forest produce.

Discuss in points the amendments made in the IFA and how will they create employment and livelihoods and new markets for the poor. 1927 E.g

• The amendments include definitions of terms like forests, pollution, ecological services etc. as there was no definition of forest in any Indian law pertaining to forest or its governance. The legal definition of forests will have huge ramifications on the conservation of forests as well as the implementation of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

• After amending Section 2(7) of Indian Forest Act, 1927, bamboo is no longer a tree and felled bamboo too is not timber. So any bamboo grown in private or homestead land by millions of farmers does not require a felling permission or transit permission from any state forest department etc.

Discuss the shortcomings of these amendments. E.g Some environmentalists have expressed fears that the amendment will degrade bamboo in forests and adversely impact the lives of millions of tribal communities who have rights over this resource under the Forest Rights Act, 2006 etc.

Conclusion – Based on your discussion form a fair and a balanced conclusion on the given issue.
Background :
- The government of India recently amended the Indian Forest Act, 1927, and the new changes can transform the bamboo sector.

Recent amendments to Indian forest act 1927 :
- The amendments include definitions of terms like forests, pollution, ecological services etc as there was no definition of forest in any Indian law pertaining to forest or its governance.
  - The legal definition of forests will have huge ramifications on the conservation of forests as well as the implementation of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
- After amending Section 2(7) of Indian Forest Act, 1927, bamboo is no longer a tree and felled bamboo too is not timber. So any bamboo grown in private or homestead land by millions of farmers does not require a felling permission or transit permission from any state forest department etc.

How the new amendments are beneficial :
- The legal and regulatory hardships being faced by farmers and private individuals will be removed and it will create a viable option for cultivation in 12.6 million hectares of cultivable waste land.
- The measure will go a long way in enhancing the agricultural income of farmers and tribals, especially in North-East and Central India.
- The amendment will encourage farmers and other individuals to take up plantation/ block plantation of suitable bamboo species on degraded land, in addition to plantation on agricultural land and other private lands under agroforestry mission.
- The move is in line with the objective of doubling the income of farmers, besides conservation and sustainable development.
- Bamboo sector :-
  - Amendment and the resultant change in classification of bamboo grown in non-forest areas will usher in much needed and far-reaching reforms in the bamboo sector.
  - After amending Section 2(7) of Indian Forest Act, 1927, bamboo is no longer a tree and felled bamboo too is not timber. So any bamboo grown in private or homestead land by millions of farmers does not require a felling permission or transit permission from any state forest department.
  - The amendment will help in harnessing this great potential and enhance the scope to increase the present level of market share and improve the economy of the entire country, particularly the North Eastern region.

Criticism :-
- Some environmentalists have expressed fears that the amendment will degrade bamboo in forests and adversely impact the lives of millions of tribal communities who have rights over this resource under the Forest Rights Act, 2006.

Q) Discuss the strategy Increasing Green Cover outside Recorded Forest Areas, as forwarded by the Abhijit Ghose committee report. (250 words)

Reference
Reference

Why this question

Recently the Abhijit Ghose committee submitted its report on increasing green cover outside recorded forest areas of India. It is an important document which needs to be discussed 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 recommendations of the Abhijit Ghose committee report and bring out the strategy envisaged by the report in order to increase the tree cover outside recorded forest areas in the country.
**Structure of the answer**

Write a few introductory lines about the importance of trees outside protected forests. E.g Adoption of agroforestry in a large scale will ensure the expansion of trees outside forests and gradually India could be a country of the net exporter in wood and wood products from its present status as a net importing nation in wood resulting in a huge savings of our foreign reserve currency.

Discuss the recommendations of the Abhijeet Ghose committee report and also discuss its strategy to increase the tree cover in the country E.g

- Actions to achieve the NDC would require action on both forest lands and non-forest lands. On forest lands in terms of rehabilitating the degraded forests and improving other forest areas, and in respect of non-forest lands by creating additional tree cover through agroforestry, farm forestry, urban and peri-urban forests, roadside avenues.
- “rationalisation and easing out of felling and transit prescriptions on wood and wood products coming from agroforestry, farm forestry and tree cropping areas.”,
- “development of business models of tree cultivation on a pilot basis to wean the practice away from project funding to create self-sustaining market models.
- “evolving business models for tree cultivation to be supported by rationalised policy and regulatory regime, including those of felling and transit, accreditation of QPM [quality planting material] nurseries, and mandatory use of certified QPM.”
- “Development of appropriate PPP models involving the private sector and forest corporations and issuance of green bonds:
- Setting aside “fixed proportion of national highways and expressways projects for greening roadsides by responsible agencies” and “innovative ways of generating financial incentives, for example, by developing and establishing a carbon registry”,
- “leasing of wasteland to the corporate sector for re-greening following proper safeguards for local communities and wildlife” etc.

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

**Background:-**

- India aims to increase the contribution of trees outside forests in meeting the goal of having 33% of India’s geographical area under the forest and tree cover, achieve the Intended Nationally Determined Contribution targets of creating an additional carbon sink of 2.5-3 billion tonnes of carbon dioxide equivalent through additional forest and tree cover by 2030 and improve the farmers’ income and reduce the trade deficit in wood.
- **To address such issues, the Ministry of Environment, Forest and Climate Change in January 2018 formed an expert committee to suggest ways to increase green cover outside forests.**

**Abhijeet Ghose committee report :-**

- It observed that most of the experts agree that achievement of NDC [Intended Nationally Determined Contribution] will require more action on non-forest lands than the forest lands but to create the targeted additional carbon dioxide sink, actions on forest and non-forest lands will be equally important.
- To analyse and classify the agricultural regions into silvi-climatic zones and suggest zone-wise tree species
- R&D to develop additional combinations of trees and agricultural crops suitable to the climatic condition, soil profile, socio-cultural acceptability and with a favorable Cost- Benefit Analysis.
- Identification through diagnostic research, suitable tree species for each agro-ecological zone distributed in the States/UTs of the country.
- Presenting a bouquet of agroforestry models to farming community of a region allowing them the option to choose the best combination.
- Ensuring availability of certified QPM for increasing productivity of cropping systems
- Local government to identify suitable species for incorporating in agroforestry systems in consultation with the local community
- To develop strategy for research and production of certified QPM accessible to farmers through a network of identified organizations and industries, extension of technical knowledge and marketing of the produce
• Initiating collaborative research with ICAR, ICFRE, SAUs and wood-based industry as partners focusing on genetic improvement of planting stock of most used tree species in agroforestry practices of different agro-ecological zones
• Creation of an agroforestry research network joining organizations and farmers bodies
• Rejuvenating the tree improvement program with continuous work on selection of candidate plus trees and establishment of seed production areas.

Positive:-
• Adoption of agroforestry in a large scale will ensure the expansion of trees outside forests and gradually India will be a country of the net exporter in wood and wood products from its present status as a net importing nation in wood resulting in a huge savings of our foreign reserve currency.

Criticism:-
• However, a section of environmentalists expressed displeasure with the report as they feel it is not the first time that an attempt is being made at bringing in the private sector. The report is not very clear about the land that will be targeted to give access to the private sector.
• The main question is about the land use. There are doubts about the area of the land to achieve the 33% target. Besides land under food production is usually the common lands used by the poor which is classified as wastelands.
• Forest development corporations had become forest destruction corporations and till today villagers in Maharashtra and Chhattisgarh have been protesting against the destruction of rich natural forests by them for teak plantations.

Q) How is Food wastage linked to environment. Discuss. Also discuss the ways to reduce food wastage. (250 words)

Reference
Reference

Why this question
Food wastage is an environmental as well as a moral issue which has a huge but unnoticed impact on the society. It is essential to discuss the issue in detail and how it affects environment and whether anything can be done to solve the problem.

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 all the aspects as to how food wastage is an environmental issue. It then wants us to discuss in detail about the ways in which food wastage can be reduced.

Structure of the answer
Introduction- Write a few introductory lines about food wastage problem. E.g A 2011 report by the Food and Agriculture Organization (FAO) illustrates the scale of the challenge. It states that globally, one third of the food produced is wasted, amounting to a loss of $750 billion.

Body-
Discuss the environmental impacts of food wastage. E.g Overall, on a per-capita basis, much more food is wasted in the industrialised world than in developing countries; ‘the blue water footprint (i.e. the consumption of surface and groundwater resources) of food wastage is about 250 km³, which is equivalent to the annual water discharge of the Volga river, or three times the volume of Lake Geneva; Finally, produced but uneaten food vainly occupies almost 1.4 billion hectares of land or close to 30 per cent of the world’s agricultural land area.’; Food wastage impacts on biodiversity loss at a global level. In order to maximize agricultural yields, farmers have increasingly invaded wild
areas in search for more fertile lands which has led to loss of biodiversity; The food produced and then later goes to waste is estimated to be equivalent to 3.3 billion tons of greenhouse gas emission, accelerating the impacts of climate change etc.

Discuss how food wastage can be reduced. E.g Balancing food production with demand; Bettering food harvesting, storage, processing and distribution processes; Consumers to buy and prepare food with a plan; Food recycling; Foodprint campaigns etc.

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

Background:-

- Food wastage is termed as a global paradox regarding the manner in which emphasis is put on agriculture to improve food security and then a third of all the food produced ends up as waste.
- This is according to FAO (Food and Agriculture Organization of the United Nations) report in 2013 indicating that the food waste globally sums to one-third of the total food produced for human consumption, about 1.6 billion tons a year.
- FAO report states that globally, one third of the food produced is wasted, amounting to a loss of $750 billion.
- Food wastage, which includes both food loss and food waste, is not only morally irresponsible, but also causes huge economical losses as well as severe damage to the world.

What is food wastage link with environment:-

- **Biodiversity loss**
  - In order to maximize agricultural yields, farmers have increasingly cultivated wild areas in search for more fertile lands which has led to loss of biodiversity.
  - Agricultural practices such as mono-cropping have also compounded biodiversity loss. The mass rearing of livestock for consumption and the use of pesticides in crop production has also significantly contributed to nitrogen, phosphorous, and chemical pollution in streams, rivers and coastal waters thus affecting marine life.

- **Wastage of the 1/3 of the world fertile land areas**
  - The produced but unconsumed food accounts for approximately 1.4 billion hectares of land, constituting almost 1/3 of the planet’s agricultural land.

- **Blue water footprint**
  - The volume of water used in agricultural food production is immense. Therefore, if 30 percent of all the food produced goes to waste, then it means that more than 30 percent of freshwater used in the production and processing of food also goes to waste.
  - Food wastage is responsible for the wastage of nearly 250 cubic kilometers (km3) of water.

- **Increased carbon footprint and the acceleration of climate change**
  - The food produced and then later goes to waste is estimated to be equivalent to 3.3 billion tons of greenhouse gas emission, accelerating the impacts of climate change. Research also has it that food waste is the third biggest emitter of greenhouse gases.
  - Food waste that ends up in landfills produces a large amount of methane.

- With agriculture accounting for 70 percent of the water used throughout the world, food waste also represents a great waste of freshwater and ground water resources.

Ways to decrease food storage :-

- **Balancing food production with demand**
  - Precedence should be centered on balancing food production with demand to reduce the problem of food wastage.
  - The first thing is to cut back on the use of natural resources in food production. Such a tool will work towards ensuring managers and chefs only produce and cook food in accordance with demand or the orders made.

- **Bettering food harvesting, storage, processing and distribution processes**
  - The second strategy should be placed on developing efficient technologies and production systems that better storage, harvesting, processing and the distribution processes.
  - Harvesting, storage and processing should also be improved by governments and NGOs by availing subsidies and training on better production practice, especially in developing countries.

- **Food waste reduction initiatives**
  - Supermarkets, retail food outlets, big restaurants and individual consumers all alike can also work on their own tailored and creative efforts to reduce food footprint.
• Consumers to buy and prepare food with a plan
  o The use of meal plans in preparing food can go a long way in ending food wastage. Consumers should only buy food according to their plans or in small batches to reduce the food that goes to waste due to expiration after long storage periods.

• Food recycling
  o Food recycling efforts are already underway but the technologies and methods used should be bettered. Starch-rich foodstuff such as crisps, bread, biscuits and breakfast cereals can for instance be recycled into high quality feeds for livestock.

• Foodprint campaigns
  o Campaigns for reducing food footprint can help fishers, farmers, supermarkets, food processors, individual consumers, and the local and national governments to work on strategies for preventing food wastage.
  o The UN and FAO have already launched such a campaign by putting emphasis on “Think Eat Save – Reduce Your Foodprint” campaign slogan. Moreover, with more and more of such campaigns, societies at large will be informed on ways for reducing foodprint and get the real facts about environmental impacts.

Q) At Katowice, the Paris accord didn’t die—and that, however meagre a success in the larger scheme of things, is significant. Critically analyze. (250 words)

Why this question
The outcome of the recent summit at Katowice has come out with a rulebook for creating a framework for implementing the Paris accord. It is important to analyze how far this rulebook would go in keeping the catastrophic impacts of climate change at bay.

Key demand of the question
The question basically expects us to analyze how far the rulebook coming out of Katowice would be successful in mitigating the impact of climate change. IPCC report has painted a really bleak picture of the future scenario and we need to examine whether the framework agreed at the cop24 summit can be considered as a success or not. We need to provide a fair and balanced conclusion and discuss the way forward.

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 – Explain about the Katowice summit and what it intended to achieve.

Body
Discuss about the major agreements reached upon in the rulebook.

• The rulebook provides what kinds of financial flows — loans, concessions, grants — can be classified as ‘climate finance’, which developed countries are supposed to provide to developing countries to help them deal with climate change. It also specifies how they should be accounted for, and the kind of information about them needed to be submitted.

• details on funding and building capacity have been postponed. References to “equity” in the draft rule book were erased by the U.S. delegation.

Critically analyze how far the rulebook can be considered a success. Highlight that issues related to equity, loss and damage etc have been put on the backburner, India and many other developing
countries rued the fact that the “balance” that they would have liked to see in the agreement was missing etc

Discuss that it provides a basic framework on which to work upon to highlight the meagre success the agreement provides.

Conclusion – Give a fair and balanced conclusion about how far the process at COP24 has been a success and what more needs to be done.

Background:-
- The 1.5 Degree Report, which was produced by the Intergovernmental Panel on Climate Change in 2018, showed that the earth is close to a climate catastrophe.

Paris accord is diluted:-
- The Paris rulebook is completely inadequate to contain the worst impacts of climate change. CoP24 could not start a process to increase the ambition of countries to cut emissions.
- The top-down elements are those where countries are bound by the rules of the treaty—countries are bound by the rules on reporting requirements, stocktaking of the collective action, design of the carbon market and finances. Some of these top-down rules have been significantly diluted.
- Reporting and transparency:
  - Under the Paris Agreement, countries must report on their progress on NDCs. At Katowice, a certain flexibility was given to developing countries which have lower capacity to collect and analyse information to provide less rigorous information.
  - But developing countries will have to provide “self-determined” time frames to improve the quality and quantity of reporting. Overall, while developing countries agreed to the overall transparency framework, developed countries diluted the framework of their financial contributions.
- Financial contribution:
  - In the Paris Agreement, developed countries had agreed to provide $100 billion each year by 2020 to developing countries. The rulebook had to define what constituted finance, and how it would be reported and reviewed. At Katowice, rules on finance were significantly diluted.
  - Developed countries now have the freedom to “self-determine” the kind of financial resources they want to give and do this without any strong mechanism of accountability.
- Global stocktake (GST) :-
  - GST was the most important top-down element in the Paris Agreement to increase ambition of countries. It was supposed to measure global progress, identify barriers and give recommendations.
  - However, the GST rulebook has been watered down to a non-policy prescriptive process. A lot of technical information will be collected without any clear recommendation to increase ambitions of mitigation or finance.
- Carbon market:
  - The Paris Agreement allows emissions trading markets between two or more countries as well as a unified market for all countries. But, in Katowice, there was virtually no progress made on non-market mechanisms, while all big countries, developed and developing, seemed to have great interest in trading carbon credits.
  - The rulebook has different rules for different markets, which is non-transparent and makes emissions reductions unverifiable. Similarly, trading has been allowed for sectors which are not covered in a country’s emissions targets. This will dilute the overall mitigation effect.
- UNFCCC is now simply a platform to collect and synthesize information. It doesn’t have the tools to drive global collective action to combat climate change.
- The US, the world’s worst polluter historically, has walked out of the Paris deal.

Paris accord is not diluted :-
- World now has a rulebook for implementing the Paris accord a way to see if countries are on track to meet the emission cut targets they have set when the deal comes into force in 2020.
- The Paris Rulebook, agreed at the UN climate summit in Katowice, Poland, gives countries a common framework for reporting and reviewing progress towards their climate targets.
- The world will now be able to see how much the world is lagging behind on the necessary climate action.
- A key element of the Paris Agreement is the Global Stocktake which is a five-yearly assessment of whether countries are collectively on track to meet the Paris Agreement’s goals to limit global warming. The new rulebook affirms that this process will consider “equity and best available science”.
• The new rules allow a degree of flexibility for the most vulnerable countries, who are not compelled to submit quantified climate pledges or regular transparency reports. All other countries will be bound to report on their climate action every two years, starting in 2024.

• **Finance:**
  - The new rulebook defines what will constitute “climate finance”, and how it will be reported and reviewed.
  - Developed countries are now obliged to report every two years on what climate finance they plan to provide, while other countries in a position to provide climate finance are encouraged to follow the same schedule.

• **Katowice rules perform several important functions:**
  - They seek to instil discipline in a process governed by “national determination”. The rules now require them to provide detailed information of their actions.
  - The rules flesh out the obligations of states identified in the Paris Agreement, and make them meaningful.
    - For instance, the Paris Agreement contained a general obligation for developed countries to report biennially on their provision and mobilisation of climate finance.
  - The rules operationalise the key processes established by the Paris Agreement i.e., a “global stocktake” and a compliance regime that seek to impose accountability and facilitate implementation.
    - The transparency framework requires states to report on indicators for measuring progress in achieving their targets, which is significant as the Paris Agreement does not impose a binding obligation on states to achieve their targets.
    - The rules allow developing countries to self-determine the reporting flexibility they need. Developing countries, with capacity constraints, can choose both how often and in what detail to report. They will also be provided support in addressing these capacity constraints.

**Conclusion:**
• Countries are now on their own to mitigate, adapt as well as pay for the costs of climate impacts. But this self-determined framework cannot keep the global temperature rise below 2°C. So, there is a need to quickly find ways to bridge the gaps that the Paris Agreement has created.

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**Q** A strong political will is required to come out with strict regulations to manage e-waste in India. Increased public awareness is the need of the hour. Examine the issues surrounding e-waste management and suggest the steps that need to be taken? (250 words)

**Key demand of the question**
The question expects us to highlight the problem of e-waste management, examine the reasons why they exist, discuss the impact of e-waste and give suggestions for improvement.

**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* – Give a brief overview of the status of e-waste management in India. In India, e-waste accounts for 4% of global e-waste and 2.5% of global GDP – so it has a higher share of e-waste than its share of gross domestic product (GDP).

*Body*
Discuss the issues surrounding e-waste management –
• The producers/manufacturers do not have adequate information on their website regarding e-waste management.
• Customer care representatives do not have an inkling about any take-back or recycling programme and even if they have set up collection centres, they are simply not enough for a geographically vast country like India.
SECURE SYNOPSIS

- India being a vast country, setting up collection mechanism is a big challenge. If any of the brands try individually to reach out to all corners of the country, it will economically not be sustainable or feasible.

- Improper enforcement of the existing laws is another hurdle.

Discuss the impact that improper management of e-waste had on health, environment etc

Give suggestions as to what needs to be fine – Along with digitalisation plans, our nation needs a matching ewaste plan to contain the e-mess, an advance type of planning rather than a post-facto approach. The first big step is to recognise that the ewaste monster is being created right now. Besides, manufacturing processes in India have to adopt better technology so as to generate less waste. Discuss the Norway model of dealing with e-waste

Conclusion – Give your view and discuss the way forward.

E-waste problem in India:-

- In recent years, India’s e-waste has grown faster than earlier anticipated. The Greenpeace study found e-waste growing at 15% annually and projected it to go up to 800,000 tonnes by 2012. But it stood at 1.7 million tonnes in 2014, the fifth highest in the world, according to a UN study.

- In India, e waste accounts for 4% of global e-waste and 2.5% of global GDP (2014 figures) – so it has a higher share of e-waste than its share of gross domestic product (GDP). For China, the two ratios are about the same. The US, on the other hand, accounts for a lower share of global e-waste than its share of GDP.

- According to a 2011 Rajya Sabha secretariat study, e-waste accounts for 70% of Indian landfills. If penetration of electronics and electrical products in India by 2030 have to grow even to today’s average world capita which leads to e waste of 6 kg per capita, the absolute e waste generation for India will grow five times the current level to 9 million tonnes in 2030.

- Hard-to-recover substances from e-waste like mercury make their home in landfills and keep leaching into ground water.

Issues surrounding E- waste management :-

- The producers/manufacturers do not have adequate information on their website regarding e waste management.

- Customer care representatives do not have inkling about any take back or recycling programme and even if they have set up collection centres, they are simply not enough for a geographically vast country like India.

- India being a vast country, setting up collection mechanism is a big challenge. If any of the brands try individually to reach out to all corners of the country, it will economically not be sustainable or feasible.

- Improper enforcement of the existing laws is another hurdle:-
  
  - As per the E-Waste Management Rules, which were notified in 2016, manufacturers of electric and electronic equipments must facilitate their collection and return it to authorised dismantlers or recyclers. However, even one and a half years after the law was passed, there is little evidence that it is being implemented.

  - There is no government data on e-waste generated in the country.

  - The 2016 law tasks the state pollution control boards (SPCBs) to make the estimates, but no SPCB has done that as yet.

  - In the first year of its implementation, though all companies claimed to have met their targets, there is no mechanism to verify their claims. The law states that CPCB and SPCBs have to conduct random checks on those who have been granted authorisations, but CPCB did not respond to Down To Earth on the number of checks it has conducted so far.

  - The law also says that the responsibility of producers is not confined to waste collection, but also to ensure that the waste reaches the authorised recycler/dismantler. But the annual returns filed by the producers are silent on this. Since there is no monitoring system, there is no guarantee that the waste collected by producers does not go to unauthorised recyclers.

- Import issues:-
  
  - Though India’s ministry of environment and forest has made import of ewaste illegal, a fair amount of ewaste is still illegally imported into India. Currently, majority of ewaste handled in India is through informal sector using rudimentary practices.

  - Informal sector’s recycling practices magnify health risks. For example, primary and secondary exposure to toxic metals, such as lead, results mainly from open-air burning used to retrieve valuable
components such as gold. According to many studies, about 95 per cent of India’s e-waste is recycled in the informal sector and in a crude manner.

- Combustion from burning e-waste creates fine particulate matter, which is linked to pulmonary and cardiovascular disease.

- **Health risks:-**
  - **These chemicals are not biodegradable.** As per a WHO study, children are especially vulnerable to the health risks that may result from ewaste exposure and, therefore, need specific protection.

- **Environmental impact:-**
  - The process includes manual dismantling, separation and shredding; unsafe removal and collection of solder by heating; acidic extraction of metals; and, burning of waste to remove combustible plastics and isolating metals. These cause severe pollution in air, water and soil and severely affects the worker’s health.

- **The nodal agency, the Central Board of Excise and Customs, lacks the human resource and the infrastructure to distinguish between a second-hand product and e-waste.**

**Way forward:-**

- India needs a matching e-waste plan to contain the e-mess, an advance type of planning rather than a post-facto approach.

- Manufacturing processes in India have to adopt better technology so as to generate less waste.

- **Norway model: India has a lot to learn from Norway in this matter:-**
  - Norway has e-waste take back system in place for more than a decade now, whereas, India notified these rules very recently.
  - The take back companies in Norway need to get an approval from the Norwegian Environment Agency. The approval process includes a verification of nearly about 50 criterions besides third party having to certify them. The process includes providing a plan detailing how they will collect e-waste and treat it in an environmentally sound way.
  - They also need to ensure that they will collect all e-waste from their market share which is determined by how much of electronics is put into the market by their members.
  - Huge amount of recycling and recovery of e-waste in Norway has only been possible due to the presence of efficient take back system and the collective interest of the producers to comply with the legislations. In a stark contrast, the formal collection mechanisms in India are able to capture only five per cent of the end of life EEE and a huge chunk lands in the informal sector putting a question mark on the recycling and recovery of e-waste.

- In order to tackle the issue of e-waste handling and management in an effective and meaningful manner, the government may consider the desirability of bringing a separate legislation on e-waste instead of handling it under the Environment Protection Act.
  - Such legislation may call for establishing a central authority or a central public sector undertaking having experts from IT field and other technical domains possessing knowledge of e-waste disposal, management and recycling techniques and its own e-waste collection centre/ recycling plants with state-of-art technologies, in all major cities of the country.
  - The law should make it mandatory that the e-waste generated from various government departments all over the country as well as by entities and individuals, big or small industrial houses, educational institutions shall be deposited at the designated collection centres.

Q) Building standards need to evolve to reflect the urgency for more resilient buildings in the face of climate change and extreme weather events. Comment. (250 words)

**Reference**

Why this question

Building sector is one of the major, rapidly growing and largely neglected sectors responsible for climate change and environmental degradation. It is essential to underline its importance in our efforts to combat climate change and environmental degradation.

**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 importance of building standards in the face of climate change and extreme weather events. We have to express our opinion, with sufficient arguments in support of our opinion, as to why/why not there is a need to evolve building standards in the face of climate change and extreme weather events.

Structure of the Answer

Introduction– mention that the 2018 Global Status Report – Towards a Zero-Emission, Efficient and Resilient Buildings and Construction Sector, highlights that emissions from buildings and construction may have peaked in the past few years.

Body

Discuss the role of buildings in climate change and environmental degradation. E.g Buildings are a key driver of energy demand, and developments within the sector such as the growing uptake of air conditioners are having a big impact on energy and environmental trends at the global level; If we don’t make buildings more efficient, their rising energy use will impact us all, whether it be through access to affordable energy services, poor air quality or higher energy bills; The number of new buildings is likely to grow rapidly in the coming years, especially in Africa and Asia. This rapid growth will challenge the target of a 30 percent energy intensity improvement in buildings by 2030, needed to put the sector on track to meet the goals of the Paris Climate Change Agreement; Energy use for ‘space cooling’ has already increased 25 per cent since 2010 and there are now more than 1.6 billion air conditioning units in buildings globally etc.

Conclusion– based on your discussion, form a fair and a balanced conclusion on the given issue. E.g building standards need to evolve to reflect the urgency for more resilient buildings in the face of climate change and extreme events like storms, floods, high wind speeds and soaring temperatures.

Background :-

• Buildings sector is a huge engine of the global economy that still accounts for a significant 39 percent of total energy-related CO₂ emissions and 36 percent of final energy use.

Building standards need to evolve :-

• Buildings are a key driver of energy demand, and developments within the sector such as the growing uptake of air conditioners are having a big impact on energy and environmental trends at the global level.
• Number of new buildings is likely to grow rapidly in the coming years, especially in Africa and Asia. This rapid growth will challenge the target of a 30 percent energy intensity improvement in buildings by 2030, needed to put the sector on track to meet the goals of the Paris Climate Change Agreement.
• If we don’t make buildings more efficient, their rising energy use will impact us all, whether it be through access to affordable energy services, poor air quality or higher energy bills;
• Energy use for ‘space cooling’ has already increased 25 per cent since 2010 and there are now more than 1.6 billion air conditioning units in buildings globally etc.

Way forward:-

• There are many ways to deliver cooling in buildings, and the entry into force of the Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer could provide a boost to one of them, the global penetration of air conditioners that use climate-friendly gases. This needs to go hand in hand with efforts to achieve much higher levels of efficiency.
• The scaling-up of national climate action plans known as Nationally-Determined Contributions (NDCs) represents a key opportunity to address a wide range of issues, by addressing policy gaps and unleashing a more committed decarbonisation of the buildings and construction sector.

Q) For coral colonies that have taken millions of years to form, climate change poses a great threat that would affect millions of islanders across the world. Comment. (250 words)

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Why this question
Coral reefs are a sensitive ecosystem which have been put to huge stress in the face of climate change. The recent IPCC report highlights the danger posed by the climate change to the corals and it is essential to discuss the issue in detail because coral reefs play a huge role in the ecosystem as well as the society.

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 threats faced by the coral reefs from climate change and how it will impact the environment and the society.

Structure of the answer
Introduction– write a few introductory lines about the declining health of corals across the world. E.g The Global Warming of 1.5ºC report of the IPCC has predicted that coral reefs would suffer a mass die-off by as soon as 2040, just 22 years away etc.

Body-
Discuss the issue in detail and bring out how the coral damage will impact millions of islanders across the world. E.g Corals, and the atolls and lagoons they form, are now in grave danger from global warming; Coral reefs would decline by 70-90% with global warming of 1.5ºC, whereas virtually all (more than 99%) would be lost with a rise of 2ºC compared with pre industrial times- IPCC report; A quarter of all marine life depends on coral reefs, and over 500 million people worldwide rely on coral reefs for food security, economic well-being and cultural identity; A combination of rising ocean temperatures due to global warming and localised threats has resulted in the loss of 50% of reef-building corals in the past 30 years etc.

Conclusion– based on your discussion, form a fair and a balanced conclusion on the given issue. E.g there is an imperative to swiftly and drastically lowering greenhouse gas emissions, and effectively reducing local stresses to reefs and atolls.

Background:-
• Recently a study found that coral reef cover in Lakshadweep has shrunk by as much as 40% in just 18 years.

Impact of climate change on corals:-
• The Intergovernmental Panel on Climate Change, the world’s largest body of climate scientists and experts, in a special report called Global Warming of 1.5ºC painted a grim picture of the impacts of climate change if earth’s temperature continues to rise.
  o It also predicted that coral reefs would suffer a mass die-off by as soon as 2040.
  o Coral reefs would decline by 70-90% with global warming of 1.5ºC, whereas virtually all (more than 99%) would be lost with a rise of 2ºC compared with preindustrial times
• A quarter of all marine life depends on coral reefs, and over 500 million people worldwide rely on coral reefs for food security, economic well-being and cultural identity
• A combination of rising ocean temperatures due to global warming and localised threats has resulted in the loss of 50% of reef-building corals in the past 30 years etc.

Impact of climate change on islanders :-
• Climate change will cause continued increases in air and ocean surface temperatures in the Pacific, increased frequency of extreme weather events
  o This would entail distinct changes to the small, diverse, and isolated island ecosystems and biospheres
• Economic impact:-
  o As sea level rises island nations are at increased risk of losing coastal arable land to degradation as well as salinification. Once the limited available soil on islands is salinified it becomes very difficult to produce subsistence crops. This would severely impact the agricultural and commercial sector in Island nations
  o In addition local fisheries would also be severely affected by higher ocean temperatures and increased ocean acidification.
SECURE SYNOPSIS

- **Biodiversity:-**
  - As ocean temperatures rise and the pH of oceans increases, many fish and other marine species would die out or change their habits and range.
  - As well as this, water supplies and local ecosystems such as mangroves, are threatened by global warming.

- **Tourism:-**
  - The tourism sector would be particularly threatened by increased occurrences of extreme weather events such as hurricanes and droughts.

**Way forward:-**
- To save coral reefs, the Coral Reef Alliance has urged action on two fronts i.e., swiftly and drastically lowering greenhouse gas emissions, and effectively reducing local stresses to reefs and atolls.

**Q** What do you understand by a responsible supply chain. Discuss. Also discuss what steps can be taken to make a supply chain responsible. (250 words)

**Reference**

**Why this question**

*In the face of rapidly growing consumerism and climate change coupled with environmental degradation, it is imperative for us to make our supply chains sustainable. Therefore it is essential to understand the concept of responsible supply chain in depth.*

**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 and relevance of responsible supply chain management and also write in detail as to how a supply chain can be made responsible.*

**Structure of the answer**

**Introduction-** write a few introductory lines about the growing size and importance of businesses etc.

**Body-**

Discuss about the concept and its relevance in detail. E.g Over the years, businesses have evolved beyond purely profit making ventures and job creators to take on wider responsibilities around societal and environmental impact. It is now common for leading organizations to have robust corporate social responsibility policies in place covering a variety of themes from greenhouse gas emissions of their operations to treatment of their staff. There is also an expectation that this responsibility extends into the supply chain;

Discuss how to make supply chains responsible etc E.g For a supply chain program to be truly sustainable it needs to be based around a sound business case; Expectations should be developed for the company’s suppliers. These should be based off existing respected standards, such as the UN’s Global Compact. This will help suppliers to put in place systems that can meet requirements; knowing who suppliers are, who supplies them, and so on. Knowing who suppliers are provides a better understanding of where efforts can have the greatest impact, where there is the most need, and where there is the most risk; ambitious but achievable targets need to be set and clearly communicated to suppliers. Posting targets and reporting supplier performance against them, helps to ensure there is momentum and buy-in; provide resources, guidance and training etc.

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

- A responsible supply chain is a link of business actors who jointly adopt, implement and coordinate values, strategies and tactics in order to connect all levels of corporate social responsibility to the business processes in the chain.
- This definition reflects a collective (joint) responsibility to sustain a responsible supply chain. But the capabilities and resources, opportunities and power may vary significantly among the individual actors in a supply chain.
- The responsible supply chain does not necessarily require all actors in the chain to equally implement all three dimensions of Corporate social responsibility and Supply chain management, even though the responsibility to do their best according to their resources and position in the chain remains.
- The achievement of a responsible supply chain is a challenge. The number of actors and complexity of interaction between actors in the chain is high, the competition and cost pressure hard, cultural differences in a global chain are difficult to handle, and an unlimited number of demanding stakeholders makes the responsible supply chain a dynamic and sometimes ambiguous mission.
- Over the years, businesses have evolved beyond purely profit making ventures and job creators to take on wider responsibilities around societal and environmental impact.
- It is now common for leading organizations to have robust corporate social responsibility policies in place covering a variety of themes from greenhouse gas emissions of their operations to treatment of their staff. There is also an expectation that this responsibility extends into the supply chain.

How to make supply chains responsible :-

- **Keep it simple:**
  - Cost pressures mean there is often a tendency for supply chains to become more complex as companies try to trim overheads by switching suppliers. But this extra complexity, which sometimes results in the use of tiers of sub-contractors and impacts on supply chain visibility, inevitably exposes the buyer to increased risk

- **Make ethical considerations part of every buying decision**
- **Businesses should collaborate, but stick to your principles:**
  - Businesses should emphasise any ethical expectations, alongside any commercial ones. If subcontracting is against the rules, make this clear and part of any contractual agreements. Tell the supplier what will happen if they are found to have breached the rules.
  - Customers and their markets need to know what businesses are doing and how the business is actively involved in supporting global development initiatives.

- **For a supply chain program to be truly sustainable it needs to be based around a sound business case.**
- **Expectations should be developed for the company’s suppliers.** These should be based off existing respected standards, such as the UN’s Global Compact. This will help suppliers to put in place systems that can meet requirements.
- **Knowing who suppliers are, who supplies them and so on :-**
  - Knowing who suppliers are provides a better understanding of where efforts can have the greatest impact where there is the most need and where there is the most risk.
- **Ambitious but achievable targets need to be set and clearly communicated to suppliers.** Posting targets and reporting supplier performance against them helps to ensure there is momentum and buy-in, provide resources, guidance and training etc.

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**Topic – Disaster and disaster management**

**Q** There is a need to move from reactive stance to proactively prepare for natural disasters. Comment in the light of the need for insurance against natural disasters. (250 words)

Livemint

**Why this question**

*Natural disasters have become more intense and more frequent and growth of population has led to increase in the potential damage caused by any natural disaster. Rebuilding and reconstruction after a natural disaster can be very expensive and thus there is a need to insure against them.*

**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 opinion as to why there is a need to proactively prepare against
natural disasters in terms of the need for insurance to rebuild the society which has suffered any
natural disaster.

Structure of the answer
Introduction- write a few introductory lines about the Increased intensity and frequency of natural
disasters. e.g In 2017, Swiss Re counted 183 natural catastrophes and 118 man-made disasters
across the globe etc.

Body-
Discuss the need for huge amounts of money that is needed to rebuild the society after a natural
disaster. E.g We react every time there is a disaster. We band together and raise funds, help victims
and volunteer time to clean up and rebuild; The cost of recovery and reconstruction in India mainly
comes from disaster relief fund and allocation from state and the central govt. but there is a huge
PROTECTION GAP; similarly a state levy will not sufficiently incentivize states to improve their
disaster risk management etc.

Discuss the need for insurance in this regard. E.g One solution is to transfer disaster risks over to the
insurers or reinsurers. Immediate payouts are made through parametric solutions based on the
amount of rainfall or the intensity of a drought, for example; The benefit to governments would be
transparency over funding; the benefit to citizens is almost immediate payouts; the benefit to
everyone affected would be food, clothes, medicines and temporary shelter without having to appeal
for funds; Ratings agencies are increasingly looking at the impact of natural disasters on the financial
health of a government. Both S&P and Moody’s said that mitigating the financial impact of natural
disasters will improve the credit rating of a government etc.

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

Background:-
- Global economic losses from natural disasters rose from an annual average of about US $50 billion in the 1980s
to approximately $200 billion each year in the 2000s.

India has a reactive approach :-
- Weather disasters are being affected by climate change that is caused by humans. The devastation is worsened
by the collective failure of governments and businesses to invest in building resilience despite the evidence
on runaway climate change.
- Ignoring all the safety guidelines, dwellings, factories and infrastructure facilities have been constructed in
areas that are potentially vulnerable to natural hazards like floods.
- Following the Uttarakhand floods in 2013 and Kashmir floods in 2014, it was only after a lot of questions were
raised and criticism directed at preparedness practices that flood forecast stations were set-up in these two
states. The same should have been done for all the flood prone states, but it did not happen.
- Disaster management plans exist on paper, but implementation remains a challenge.
  - Despite the emphasis on a paradigm shift to a preparedness approach by the government, most parts
    of the country continue to follow a relief-centric approach in disaster management, rather than a
    proactive prevention, mitigation and preparedness path.
- Disaster maps and vulnerability profiles by the Ministry of Housing and Urban Poverty Alleviation of the
Government of India identify winds and cyclones, earthquakes, and floods as disaster risks. It is unclear if
the maps have been updated to include weather and climate extremes and the associated crop losses or loss
of lives or health risks.

Need for more proactive approach :-
- Reconstruction efforts must involve rebuilding in a better way. Climate proofing in Kerala calls for structures
to be built with wind- and water-resistant materials.
- People need to relocate out of harm’s way. During the 2015 floods, Chennai illustrated the price of
unrestricted urban development.
• **Early warning is vital.** Because of investments in these systems, Cyclone Phailin (2013) claimed less than 40 lives in Odisha. In Kerala, there was no timely forecast from national weather services. The State needs a reliable flood forecasting capability.

• **There needs to be tougher implementation of logging and mining regulations in fragile ecologies.** Deforestation worsened the effects of Kerala’s floods and mudslides, as the report of the Western Ghats ecology expert panel 2011 had warned.

• **There is the climate conundrum** where regions with heavy rainfall are also expecting a severe drought.

• **Non-structural measures for flood forecasting** provide early warning in flood prone areas have proved to be successful for flood management. High-tech warning systems on the ground will not be useful until the authorities, key stakeholders and communities are trained to act upon the information obtained from these facilities.

• **Different stakeholders need to come together for mapping risks, vulnerabilities, and resources,** engage in regular preparedness actions like drills and capacity building, develop and update emergency plans, check the availability of resources at the local level and act upon early warning intimations.

• **While the government works towards strengthening systems and mechanisms for preparedness and response, civil society has a major role to play, at the community level, for disaster preparedness.**

• **There is a need for investing in disaster preparedness and mitigation across the country, irrespective of whether any state has been hit by a disaster or not.** India needs to adopt a collaborative approach, where the roles of the government, corporations, academia, civil societies and communities are recognised, and all actors work hand-in-hand towards achieving disaster resilience.

• **Disaster recovery frameworks must be robust in terms of pre- and post-disaster initiatives requiring cross-sector collaborations between communities,** local, state and central governments, private sectors, religious and social non-governmental organisations.

• **An additional factor that must be added diligently to disaster recovery is the integration of the health sector into pre- and post-recovery strategies and decisions.**
  o Any policies and strategies to enhance India’s pre- and post-disaster resilience must also consider natural and built environments and socioeconomic systems.
  o All implementations of these strategies must leverage the pre-disaster planning to drive rapid post-disaster return to healthy, resilient and sustainable communities.
  o A shared vision of healthier, more resilient and sustainable communities must also identify the knowledge, data and research needs for assessment of hazard anticipation, risk, vulnerability, and resilience.

• **Models, metrics and indicators for measuring progress towards resilience must drive an iterative learning process to better anticipate and manage disasters at short, intermediate, and long-terms to ensure resilient, healthy and sustainable communities with measurable reductions in vulnerability to disasters.**

• **National disaster recovery framework needs to facilitate community engagement at all levels with proper information and training that is simple and accessible to all.** Such a framework must leverage existing social networks and enhance the sense of community before, during and after disasters.

• **Disaster mitigation and adaptation initiatives with up-to-date information and built infrastructure must be designed** to strengthen the nation’s as well each state’s and community’s ability to anticipate, deal with, resist and recover.

• **The national framework will require a well-defined process for declaring major disasters** so that resource allocations can be expedient and fair.

• **A culture of resilience needs to be inculcated across all sectors** so that the roles and responsibilities of governmental and non-governmental organisations and the public are clearly defined with codes, standards and guidelines explicitly established, risk-based insurance pricing in place along with a national resource of disaster-related data to constantly improve disaster recovery and enhance resilience.

• **Building codes and standards and zoning laws ought to consider natural disasters and climate impacts on built infrastructure as well as crops and natural environmental assets.**

**Why insurance is needed against natural disasters:**
• As more people are moving into more densely populated cities and towns the impact of a similar-scale event 20 years ago would have caused much less damage than it would do today. **India faces numerous such perils and needs to be better prepared.**
SECURE SYNOPSIS

- **More funds:**
  - The cost of recovery and reconstruction in Kerala has been put at Rs. 31,000 crore, according to a recent UN report. The annual allocation by both state and central authorities to Kerala’s disaster relief fund is a mere Rs.214 crore.
  - By transferring disaster risks over to the insurers or reinsurers, **immediate payouts are made** through parametric solutions based on the amount of rainfall or the intensity of a drought, for example.
  - The benefit to governments would be **transparency over funding**.
  - The benefit to citizens is almost immediate payouts and the benefit to everyone affected would be food, clothes, medicines and temporary shelter without having to appeal for funds.
  - **Ratings agencies are increasingly looking at the impact of natural disasters on the financial health of a government.** Both S&P and Moody’s said that mitigating the financial impact of natural disasters will improve the credit rating of a government.
  - With insurance **state governments are expected to rely less on federal assistance**, especially when it comes to funding post-disaster reconstruction.
    - The immediate measure to encourage states to adopt risk financing tools would be an enabling provision **that allows them to pay for insurance premiums from the disaster relief fund allocations**.
    - This will not only promote greater financial autonomy at the state level, but also has the advantage of requiring no additional budgeting by centre.
  - **International examples:**
    - America’s National Flood Insurance Program, the Caribbean’s 16-country hurricane, earthquake and rainfall risk insurance fund and Mexico’s FONDEN programme, which is a comprehensive disaster-risk financing strategy comprising reserve funding, reinsurance and catastrophe bonds.
    - China’s provincial Guangdong and Heilongjiang governments have purchased insurance against natural disasters as a means of fiscal budget protection. Several of these programmes have responded with timely payouts following recent natural disasters.

**Q) Discuss the National Cyclone Risk Mitigation Project (NCRMP) of the government 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 NCRMP, its aims and objectives and the strategy enunciated by the project to achieve those aims.*

**Structure of the answer**

**Introduction**—Write a few introductory lines about the NCRMP. *E.g The Government of India has initiated the National Cyclone Risk Mitigation Project (NCRMP) with a view to address cyclone risks in the country. The overall objective of the Project is to undertake suitable structural and non-structural measures to mitigate the effects of cyclones in the coastal states and UT’s of India.*

**Body**—

*Discuss about the NCRMP in further detail. E.g*

- **NDMA under the aegis of MHA implements the Project in coordination with participating State Governments and the NIDM.**
- **The Project has identified 13 cyclone prone States and Union Territories (UTs), with varying levels of vulnerability. These States/UT have further been classified into two categories, based on the frequency of occurrence of cyclone, size of population and the existing institutional mechanism for disaster management. These categories are:**
The strategies of the project include:

(i) improved early warning dissemination systems
(ii) enhanced capacity of local communities to respond to disasters
(iii) improved access to emergency shelter, evacuation, and protection against wind storms, flooding and storm surge in high areas
(iv) strengthening DRM capacity at central, state and local levels in order to enable mainstreaming of risk mitigation measures into the overall development agenda etc.

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

Background:-
- Cyclones are among the most dangerous and most destructive natural disasters that can occur. They have been responsible for about 1.9 million deaths worldwide over the last two centuries, and it is estimated that 10,000 people are killed each year by these storms. Cyclones tend to do the most damage in coastal areas, where they have been known to alter the landscape and remove forest canopy.
- 13 coastal states and Union Territories in the country are affected by Tropical Cyclones (TCs).

National cyclone risk mitigation project:-
- The Government of India has initiated the National Cyclone Risk Mitigation Project (NCRMP) with a view to address cyclone risks in the country.

Objective:-
- The overall objective of the Project is to undertake suitable structural and non-structural measures to mitigate the effects of cyclones in the coastal states and UT’s of India.

- National Disaster Management Authority (NDMA) under the aegis of Ministry of Home Affairs (MHA) will implement the Project in coordination with participating State Governments and the National Institute for Disaster Management (NIDM).

- The Project has identified 13 cyclone prone States and Union Territories (UTs), with varying levels of vulnerability. These States/UT have further been classified into two categories, based on the frequency of occurrence of cyclone, size of population and the existing institutional mechanism for disaster management.

- These categories are :-
  - Category I: Higher vulnerability States i.e. Andhra Pradesh, Gujarat, Odisha, Tamil Nadu and West Bengal.
  - Category II: Lower vulnerability States i.e. Maharashtra, Karnataka, Kerala, Goa, Pondicherry, Lakshadweep, Daman and Diu, Andaman and Nicobar Islands.

Project Objectives :
- The Project development objective of the NCRMP is to reduce vulnerability of coastal communities to cyclone and other hydro meteorological hazards through
  - (i) improved early warning dissemination systems
  - (ii) enhanced capacity of local communities to respond to disasters
  - (iii) improved access to emergency shelter, evacuation, and protection against wind storms, flooding and storm surge in high areas
  - (iv) strengthening DRM capacity at central, state and local levels in order to enable mainstreaming of risk mitigation measures into the overall development agenda

Components:-
- There are several components of the scheme such as Early Warning Dissemination System (EWDS, Cyclone Risk Mitigation Infrastructure, Construction of Multipurpose Cyclone Shelters (MPCS), Construction of “Missing Roads and Bridges, Underground Cabling of One City, Technical Assistance for Disaster Risk Assessment and Recovery and Project Management Support Consultancy Services.

Positives:-
- India’s first automatic Early Warning Dissemination System (EWDS) is commissioned by 2018 in Odisha. The project aims to establish fool-proof communication system to address existing gaps in disseminating disaster warning up to community level.
SECURE SYNOPSIS

- The EWDS is a first-of-its-kind automatic public address system in the country. The project is being implemented under National Cyclone Risk Mitigation Project with World Bank’s help.
- It will help to warn vast population of state residing along its coast from State headquarters through loud sirens from towers installed at 122 locations in six coastal districts in event of occurrence of natural disasters like a tsunami or cyclone.

- According to the report, West Bengal, the only eastern state to be included in this second phase of the project, and Gujarat have tendered more than 50% of the planned work and begun to implement them. Karnataka and Goa have also issued tenders to build cyclone shelters.

Q) Bhopal Gas tragedy which still rocks the conscience of the nation was an industrial disaster. Explain what are industrial disasters and discuss ways through which they can be prevented. (250 words)

Key demand of the question
The question expects us to list out and explain the various kinds of industrial disasters along with ways through which we can address them.

Directive word
Discuss – Your discussion should revolve around explanation of various kinds of industrial disasters and how to prevent them.

Structure of the answer
Introduction – Explain what industrial disasters are and mention what kind of disaster Bhopal Gas tragedy is.

Body
- Discuss and explain the various kinds of industrial disasters such as chemical disasters, nuclear disasters, biological disasters, fire related disasters etc. Give examples for them as well
- Explain the impact of such disasters such as loss of lives, property, harm to surrounding environment etc
- Discuss ways through which they can be prevented – quality control standards, inspection and maintenance etc

Conclusion – highlight that of precautions are taken, such disasters can be avoided.

Background:-
- India has continued to witness a series of industrial disasters during the last 33 years after the Bhopal gas tragedy, including a chlorine gas leak in Vadodara (2002) that affected 250 people, a toluene fire at Mohali (2003), a chlorine gas leak at Jamshedpur (2008), and boiler furnace explosion at the Unchahar power plant (2017) which killed 43, affecting more than 80 people.

Industrial disasters :-
- Industrial disasters are disasters caused by industrial companies, either by accident, negligence or incompetence. They are a form of industrial accident where great damage, injury or loss of life are caused.
- The industrial and chemical disasters can occur due to accident, negligence or incompetence. They may result in huge loss to lives and property. The Hazardous industries and the workers in these industries are particularly vulnerable to chemical and industrial disasters.
- The most significant chemical accidents in recorded history was the 1984 Bhopal Gas disaster, in which more than 3,000 people were killed after a highly toxic vapour, (methyl isocyanate), was released at a Union Carbide pesticides factory.
- There are various kinds of industrial disasters such as chemical disasters, nuclear disasters, biological disasters, fire related disasters etc.
SECURE SYNOPSIS

Measures taken in India and issues thereof:

- Preventive measures taken:
  - While the Bhopal tragedy forced corporate India to take many preventive measures, including undertaking mock-drills and use of better technology, the government too enforced new legislation to deal with its aftermath.
  - Many state governments imposed restrictions on inspection by inspectors, leading to the constitution of inspection teams which could visit any factory once in a year only after getting permission from a competent authority. As a result of this, the number of factory inspections reduced, and in turn, the accident rate increased.
  - Many state governments also set up their own expensive and sophisticated Industrial Hygiene Laboratory, possessing equipment such as noisometer, audiometer, mercury analyser, personal sampler, etc to monitor health parameters at workplace.
    - In some states, these labs have not functioned even for a single day, as the government failed to sanction staff to run it, leaving the costly equipment to simply lie locked up in the store.
  - The Factory Inspectorate finds it difficult to enforce statutory legislations because of manpower shortage.
  - The state government, too, has spared no efforts to lower the morale of this staff. This has reduced the significance of Factories Act whose provisions are being flouted with impunity by powerful industrialists.

How to prevent them:

- Chemical disasters, like the one in Bhopal, are preventable if risks are identified and addressed early on.
- It will take the combined effort of competent authorities, private sector and society to prevent tragic environmental events from happening.
- Some measures include:
  - Developing policies to ensure that industries operate in accordance with technical and safety standards and allocating resources for risk assessment and monitoring.
  - Most of all, it’s important to adhere to environmental norms. Taking environmental safety and public health risks seriously, and promoting do-no-harm industrial development can make a big difference.
  - There is a clear need to promote clean development that innovatively addresses potential negative impacts on the environment.
  - To prevent future environmental disasters, all sectors could also do more to integrate environmental emergency preparedness and response activities into strategies and sustainable development programs.

TOPIC: Linkages between development and spread of extremism; Role of external state and non-state actors in creating challenges to internal security.

Q) Mob violence in India is an indicator of the dysfunctional criminal justice system. Comment. (250 words)

**Indian express**

**Why this question**

*India has witnessed a series of mob violence related incidents with the killing of the SHO in UP being the latest one. In this context it is essential to evaluate the inefficiencies of the criminal justice system in India and how it is related to mob violence.*

**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 look into the mob violence related incidents in the country and bring out how they do/ don’t indicate the dysfunctional criminal justice system in India.*

**Structure of the answer**

*Introduction– write a few introductory lines about the spate of mob violence related incidents in India e.g a full-fledged SHO of Uttar Pradesh police, Inspector Subodh Kumar Singh, was shot dead, allegedly by a mob of cow vigilantes etc.*
Body--

Discuss the various ills affecting the Indian criminal justice system and bring out their relationship to mob violence. E.g The fundamental link between crime and punishment, that is the foundation of the rule of law, has been broken in affected areas for a while now. Trials take decades. Conviction rates are abysmal. Witnesses turn hostile as a matter of routine with no adverse consequences. Forensic facilities are negligible. Prisons are overcrowded and more often than not, they serve as safe havens for well-connected gangsters to run their empires from; there simply aren’t enough policemen to police states; the belief cutting across party lines, that the police are simply the bounden servants of the government of the day. Their primarily role is not to serve the public or uphold the rule of law, but to further the cause of the ruling party and strike terror in the heart of its political opponents etc.

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

Background:-
- There is growing evidence of hate crimes which are criminal acts against people based on their real or perceived membership of a particular group, such as caste, religion or ethnicity across India. Recently a full-fledged SHO of Uttar Pradesh police was shot dead allegedly by a mob of cow vigilantes.
- The fundamental link between crime and punishment, that is the foundation of the rule of law, has been broken in some states.

Mob violence is an indicator of dysfunctional criminal justice system:-
- The most important factor is there simply aren’t enough policemen to police. By UN standards, at current population levels, UP needs around a million police personnel. At present it has around 3,00,000.
  - Those who are there are not just overburdened and under-resourced, but their professional spine has been broken by casteism, corruption and frequent transfers.
- Besides being severely understaffed and starved of critical resources, the structure of policing, in a continuation of its colonial legacy, remains subservient to political control.
  - Political interference at every stage from investigation to prosecution ensures that the police is accountable not to the citizenry, but to the powerful political class who is in a position to reprimand them.
- Criminal justice system seeks largely to respond to the acts of violence itself, while leaving the causal factors unchecked.
- Failure of police machinery:-
  - They consistently fail to lodge FIRs or charge sheets on time. In many cases, allegations of collusion have been made against them. Poor investigation and reluctance of public prosecutors to pursue cases have resulted in bails for alleged culprits.
- Conviction rates are abysmal.
- Witnesses turn hostile as a matter of routine with no adverse consequences.
- Forensic facilities are negligible.
- Prisons are overcrowded and more often than not, they serve as safe havens for well-connected gangsters to run their empires from.

Way forward:-
- There is a need to an overhaul of legal systems and policy objectives. Police reforms calling for greater independence need to be implemented. Specifically, the nexus between state governments and the police needs to be dismantled by shifting police supervision to a more independent body
- Mechanisms like the proposed Police Complaints Authorities need to be introduced to ensure that the police force is also accountable for its failures to follow the law.
- In order to improve police intelligence and recognise and quell social unrest at its roots, initiatives like community policing and violence observatories, which can be established to systematically study the causes of violence in risk-prone areas, should be given impetus.
- Finally, liability and accountability for mob violence must not end at the actual participants in the violence. Those found responsible for spreading dissatisfaction and organising or mobilising against specific communities must also be brought to book.
- Supreme court recently stated that act of lynching is unlawful since it has become a sweeping phenomenon with a far-reaching impact. No citizen can assault the human dignity of another, for such an action would comatose the majesty of law. This needs effective implementation.
The following measures can also be taken:-

- Hold registered political parties and other registered entities accountable for the acts of commission or omission by their members involved in hate crimes and direct suitable penal action against them.
- Prohibit those holding constitutional and public offices from identifying themselves with lynch-mob accused publicly in any manner and in case of any infraction hold them responsible and subject to immediate disqualification from such offices.
- Sensitise subordinate judiciary and higher judiciary dealing with such hate crimes so as to protect the vulnerable sections of the society including those belonging to minority communities as well as women, children and Dalits by holding seminars and workshops at regular intervals involving social activists, psychologists, other activists, lawyers and responsible citizens from all communities.

Q) Kashmir stands today at the cusp of a new and dangerous phase. Comment in the context of the present turmoil in Kashmir. (250 words)

Why this question

The recent report about the spate in the number of casualties in Kashmir and a handful of other incidents point out to the grim situation in Kashmir today. It is therefore important to discuss the present situation and bring out the reasons behind the same.

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 present situation in Kashmir and express our opinion as to why/why not Kashmir is at the cusp of a new and dangerous phase.

Structure of the answer

Introduction- write a few introductory lines about the increase in number of casualties in Kashmir witnessed during the past few years. E.g 2018 has turned out to be the worst for the J&K state, with nearly 50 policemen & dozens of civilians killed, hundreds of militants neutralized etc.

Body-

Discuss why the present situation is critical and at the cusp of a new and dangerous phase. E.g

Four years of mismanaged politics have plunged J&K into its worst ever cycle of violence and confusion; failure to sustain democracy in the state as the recent dissolution of the assembly denotes; Over the past three years, South Kashmir had been the main epicentre of violence, but more recently, North and Central Kashmir have also emerged as violence prone; This year has witnessed some of the highest levels of violence since 1989; Areas such as Srinagar which had previously been declared a ‘militancy free zone’ have again witnessed a series of militant attacks; a distinct feature of the situation in Kashmir today is the divide between the administration and the populace, which is possibly at its widest today; mention the turnout in recent years in the elections held for the local bodies etc.

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

Background:-

- J & K Valley’s prolonged anti-India protest, rising insurgency in Kashmir, intense counter-insurgency operation has caused acute distress in the region. For the first time in nearly a decade, the number of listed militants in Kashmir has crossed 300.

New phase in Kashmir:-

- Changing nature of the militancy:-
  - This has seen an escalation of local recruitment which has outpaced the numbers the security forces have been able to neutralise.
SECURE SYNOPSIS

- **Mass participation in violent civil protest** involving stone pelting often at the site of an encounter or a funeral.
- Despite a major offensive by the Indian Army against terrorists this year, the number of **locally recruited terrorists has increased**.
- **Foreign terrorists** infiltrating into India from across the border are setting up hideouts which could be used as training grounds for these local Kashmiri men.
- According to the widely-cited reports, each **encounter in the valley triggers a surge in militant recruitment** which far exceeds militants killed in counter-insurgency operations.
- More disturbing than the rise in local recruitment into militancy is the **rising public support for militancy**. Open support by locals to trapped militants particularly during encounters enabling their easy escape, has entirely changed the relationship between the locals and the militants.
- Poor and unemployed youth are easily being targeted by radicals.
- Anger in the Valley is higher than it has been in two decades and has reached alarming proportions. Peace and reconciliation process is failing.
- **Focal point of violence changed:-**
  - Over the past three years, South Kashmir had been the main epicentre of violence, but more recently, North and Central Kashmir have also emerged as violence prone.
- Distinct feature of the situation in Kashmir today is the **divide between the administration and the populace**. The turnout in local body elections in urban areas dropped is a negligible percentage.
- **Controversy generated over Article 35A of the Constitution, accompanied by demands that it should be revoked**. It led to widespread apprehension that the Centre was trying to undermine the special concessions granted to J&K which were embedded in the Constitution.
- **Militants adopted a variety of new tactics to create fear**. They targeted the families of policemen, in addition to concentrating on off-duty policemen, especially when they went home on leave. This led to a fear psychosis.
- **The profile of those joining the ranks of the militants is also changing**, with many more educated Kashmiri youth signing up. The new generation of militants appears far more religiously inclined. This makes them easy fodder for ideologies propelled by terror groups such as the Islamic State (IS).
- Opinions in J&K have become further inflamed following the Governor’s decision to dissolve the J&K Assembly.
- There are many stray indications that official agencies and jihadi organisations in Pakistan are collaborating in training recruits to be sent into Kashmir.

**Issues with government strategy:-**
- **The government still remains undecided about resuming peace talks with Pakistan**.
- A hybrid policy of appeasing separatists along with stop-start counter-terror operations won’t work.
- **Past experience:-**
  - During the first three months of the 2000 ceasefire, casualties amongst security forces rose sharply.
  - **There might be continuing attacks on security forces under a unilateral ceasefire**. The ceasefire has seen a marked increase of violence in the state, capped by the assassination of journalist Shujaat Bukhari.
- **Time is not right for ceasefire:-**
  - **There is little public pressure on the armed groups**. The impetus for peace has been replaced by communal stand-offs, anger and hatred.
  - More civilians, militants and security forces have died in the first five months of 2018 than in corresponding periods for the previous decade.
  - In the Valley, alienation from India is as high as it was in the early 1990s, when insurgency took root.
- There have been debated about abrogating article 35 A and article 370 but the state is vehemently opposing it. The government needs to be very cautious.

**What should be the fresh strategy :-**
- **Focus on investing in J&K’s infrastructure:-**
  - The Kishanganga hydroelectric power plant, which will generate 330MW of electricity, the tunnel-cum-highway connecting Jammu and Srinagar and new-economy jobs for youth are what J&K needs.
- **Absence of an effective information and communication plan has hobbled the government’s ability to respond even when it is on the moral high ground**. This must be immediately corrected.
- **Standard operating procedures** must require the use of lethal force only when there is an imminent threat to life and property, force should be used proportionately and not as a punitive measure.
India can consider an approach taken by the British in Northern Ireland. This strategy involved operating within the framework of law, avoiding torture, illegal killing and arbitrary punishment. Though there were excesses, by and large the British stuck to the policy that has led to sustainable peace in the region.

It is that much more obligatory on India’s part to conduct operations within the ambit of the law and through the use of discriminate and proportionate force.

What is needed at the moment is the deployment of new socio-cultural resources, and a new operational culture to wind down the militancy without alienating more locals who could either join or influence their relatives and friends to join various terrorist organisations.

Lethal force should be the last resort, used only when lives are threatened. Promptly investigating allegations of abuses and prosecuting those responsible is key to resolving this mess.

The 2000’s ceasefire experience also showed that casualties among the security forces could have been minimised had more urgent attention been paid to tightening defence of security installations and personnel. This needs to be looked into now.

Externally, wide-ranging peace talks between India and Pakistan, the Indian administration and ‘azaadi’ groups is needed and internally, peace-building on the ground by multiple stakeholders involved is necessary.

Intelligence agencies also need to ferret out more details of what Pakistan is planning in J&K, even while talking of peace in Kartarpur and elsewhere.