

# UPSC GS MAINS PAPER - 3

## HINTS

1. *The nature of economic growth in India in recent times is often described as jobless growth. Do you agree with this view? Give arguments in favour of your answer.*

*Hints:*

- A jobless growth is an economic phenomenon in which a macro economy experiences growth while maintaining or decreasing its level of employment. The Indian growth experience of the last decade can be called as the jobless growth as the rate of employment growth is less than population growth. The following aspects can be highlighted regarding this.
  - While share of employment has largely declined in Agriculture sector, Service and Manufacturing sector have failed to absorb all the people shifting from agriculture sector.
  - Rapid rise of employment opportunities in informal or unorganized sector in recent years is another aspect of employment generation in India, which further marginalizes labour.
  - While IT or Service Sector has been the spearhead of economic growth in India after advent of globalization, they can't absorb any significant labour. Because the sector, requires highly skilled people only.
  - During 2005-10, only 1 million net jobs per annum were generated in organized sector, whereas 60 million people entered into labour market of India.
  - Large scale unemployment among engineering graduates, post graduates like MBA and doctorates are other examples of jobless growth. This is the reason why lakhs of students including engineers, MBA or Phd students applied for only 300 posts of peon in Uttar Pradesh.
  - The answer to jobless growth lies in policy initiatives that will promote manufacturing and services sector. Reforms in labour laws, provision of infrastructure, encouragement of small scale industries and promotion of export-oriented light industries that are manpower intensive are some of the policy initiatives that are required.
  - The experiences of developed countries have demonstrated that the growth of smaller businesses can drive employment generation. Further education and skill development is the need of hour to increase employment with economic growth by harnessing the potential of demographic dividend.
2. *Livestock rearing has a big potential for providing non-farm employment and income in rural areas. Discuss suggesting suitable measures to promote this sector in India.*

*Hints:*

- Livestock sector contributes 25 per cent of gross value added in the agriculture sector and provides self-employment to about 21 million people. Rapid growth of this sector can be even more egalitarian and inclusive than growth of the farm sector, because those engaged in it are mostly small landholders and the landless farmers. Overall, livestock sector has performed well in terms of numbers, but not in terms of productivity.

- **Suitable Measures:**

- a) Providing sufficient fodder and drinking water is the need of hour to increase productivity of livestock rearing in India, in the rain-shadow region.
  - b) As this area is fragmented over various departments, there are lesser effort to provide technical inputs, institutional designs and adequate investments due to problem of coordination. The 12<sup>th</sup> plan suggested that RKVY should provide a single window platform for all problems of livestock sector.
  - c) Trade Policies like marketing have to be more effective for promotion of various livestock products like egg, fish, milk etc. and providing sufficient price to farmers by reducing influence of middlemen.
  - d) Our indigenous breed of cattle shall be promoted, because most foreign breed cattle are not suitable to our climate and even provide low quality milk as compared to indigenous one. There are some exceptions like Jersey cow, but overall introduction of foreign breeds has not been very successful.
  - e) Necessary training and subsidies shall be provided to farmers to adopt livestock rearing as an alternate source of income.
  - f) Other untouched livestock sectors such as pig farming, apiculture, etc. shall be promoted with attractive subsidies.
  - g) Government shall also focus on Research & Development in livestock sector to increase per livestock productivity to provide more benefits to small & marginal farmers.
3. *In view of the declining average size of land holdings in India which has made agriculture non - viable for a majority of farmers, should contract farming and land leasing be promoted in agriculture? Critically evaluate the pros and cons.*

**Hints:**

- The average size of land holding has been declining in India since Independence due to increase in population, diversion of agricultural land for industrialization and urbanization and also because of divisions within the family. The current size of land holding is 1.21 ha and 85% farmers are marginal farmers. This has rendered agriculture unviable for vast majority as:
  - a) Small farms are not suitable for using expensive technologies,
  - b) Irrigation becomes difficult, and
  - c) A lot of fertile agricultural land is wasted in providing boundaries.
- Contract farming refers to a system wherein a farmer/primary producer agrees to supply a pre-agreed quantity/acreage of certain quality/variety produce at a pre agreed price and time, to a processing/marketing firm by legally entering into a contract with it.
- **Advantages of Contract Farming**
  - a) It will bring more technology and modernization to agriculture as seeds and inputs are given by business houses.
  - b) Stabilize price for farmers as prices would be fixed in the contract
  - c) Higher Yield and Productivity, which would increase the income for farmers and also give boost to Food processing sector, example being the income of potato farmers in Punjab increased by 30-40% after they shifted to contract Farming by signing contract with Frito lays.
- **Disadvantages of Contract Farming**
  - a) Excludes small farmers usually business deal is signed with farmers more than 5 acres.
  - b) Market risk as Companies decline to procure crops in case of less demand by raising quality issues.
  - c) Production risk as production cost is high in CF thus if crops fail no company provides any insurance and help.
  - d) Bargaining power of farmers is weak.

- Thus, even though contract Farming has significant potential to turnaround production in Agriculture sector, it has number of lacunae which needs to be rectified by:
    - Corporatization of small farmers, it would allow small farmers to participate in contract farming and also would increase their bargaining power.
    - KISAN insurance scheme should be made mandatory for all the farmers participating in contract farming. It would reduce production risk.
  - Further the leasing of land can be a solution to the problem of land acquisition as the land of small farmers and tribals can be handed for plantation and development under leasing but the biggest impediment to this is lack of land records.
  - Hence contract farming and land leasing can be used for increasing agricultural productivity but the government has to take steps to make it friendly to small farmers than the big corporates.
4. *How can the 'Digital India' programme help farmers to improve farm productivity and income? What steps has the Government taken in this regard?*

**Hints:**

- Digital India programme aims to remove the digital illiteracy in India by ensuring every citizen has access to ICT. Its 3 key pillars are:
  - a) Infrastructure as a Utility to Every Citizen,
  - b) Governance and Services on Demand, and
  - c) Digital Empowerment of Citizens.
- Digital India could be a game changer for improving farm productivity and income of farmers in number of ways.
  - a) It can provide up to date information related to better techniques of production, market information, weather forecasting, input supplies, and credit availability as early as possible leading to better productivity and better income for farmers.
  - b) It can help farmers to get better prices for their products, since they will get knowledge about price prevailing through digital India.
  - c) Through digital India farmers would be able to do better decision making about type of crops which is suitable for their soil and also which crops have emerging market demand.
  - d) It will increase interaction among researcher, extension worker and farmers and thus can expedite spread of technology from labs to farms.
  - e) It can help in Precision Agriculture, which has proven potential in increasing income and productivity.
  - f) It could help in bypassing archaic APMC laws as through digital India e-commerce could be promoted which would provide direct linkage between farmer, trader and retailer leading to increase in income and productivity.
  - g) Digital India could also provide farmers information regarding farm business and management.
- **Steps taken by government:**
  - a) Government has launched national optical fiber network to connect all the panchayats of the country with high speed broadband internet connection.
  - b) Government has launched Agmarknet a web based portal where market, price and technology related information are provided to farmers.
  - c) Government has introduced schemes like Kisan SMS portal and Sandesh Prathak, where automatic and free of cost information are provided to farmers in local language and also it has provision of voice SMS for illiterate farmers.

- d) Soil Health Card portal was launched which serves as a single unified platform for registration of soil samples, recording test results of soil samples and generation of Soil Health Card (SHC) along with Fertilizer Recommendations.
  - e) Participatory Guarantee System portal has been launched by union government for certifying organic products in accordance with the standards laid down.
  - f) NOWCAST weather alert system has been launched to provide free SMS service alerts on extreme weather conditions (hailstorm, etc.) to over one crore registered farmers on their mobile phones.
5. *In what way could replacement of price subsidy with Direct Benefit Transfer (DBT) change the scenario of subsidies in India? Discuss.*

**Hints:**

- Replacement of price subsidy with DBT could change the scenario of subsidies in India in following ways:
    - a) **Less leakage:** Since in price subsidy there is lot of diversion to open market because of price differential and also because of middleman involved in the process DBT could reduce leakage significantly since the money is transferred directly into the accounts of beneficiary and because there is no price differential.
    - b) **Better Targeting:** Price subsidies have very much inclusion and exclusion errors. According to economic survey 2015 in LPG bottom 50% population consume only 25% LPG and also in PDS 54% wheat and 48% sugar is lost due to leakage. Since DBT will be based on biometric identified process there will less chances of inclusion and exclusion errors.
    - c) **Save government money due to reduction in ghost beneficiaries:** The Pahal scheme in LPG shows that benefits of DBT as Government saved Rs 14000 crore due to removal of ghost beneficiaries. The introduction of DBT could reduce Fiscal deficit for government and saved money could be utilized in expanding rural infrastructure which according to planning commission report is 30% more beneficial in removing poverty than price subsidies.
    - d) **Gives freedom to people to spend money:** DBT is more democratic since it gives freedom to people to spend it as they want instead of paternal state approach of the price subsidies.
      - Thus DBT could be game changer in reducing subsidies amount, leakage, etc, however, there are concern that DBT money could be utilized for buying alcohol and tobacco and thus, could worsen deficient nutritional status and also inflation could erode the value of subsidies, thus what is required is that DBT should be transferred only in the bank accounts of women member and proper inflation indexing of the amount is needed so purchasing power of DBT is not eroded with high inflation.
6. *What are the impediments in marketing and supply chain management in developing the food processing industry in India? Can e-commerce help in overcoming these bottlenecks?*

**Hints:**

- The food processing sector is critical to India's development, for it establishes a vital linkage and synergy between the two pillars of the economy—Industry and Agriculture.
- But the challenges faced by food processing industries are:
  - a) Food processing sector is mostly dominated by MSMEs and they face issues of non-availability of institutional credit, outdated technology, infrastructure constraints, especially, lack of intergraded cold storage, skilled manpower shortage, etc.
  - b) Poor transportation (lack of multi-modal linkages) and storage leads to delay in procuring perishable items and thus leads to losses.
  - c) Competition from MNCs which uses huge finances to market their product.
  - d) APMC laws in some states don't allow food processing industries to procure directly from farmers and thus increases cost due to coming of middlemen.

- e) High taxation along with entry tax, Octroi, purchase tax.
- **E-commerce** means sale or purchase of goods and services conducted over network of computers or TV channels.
  - The rapidly growing e-commerce business can provide food processing industries, the wide platform for selling their products so that they can expand their reach and visibility. It may help in overcoming the poor infrastructure issue that food processing industries are facing as e-commerce portals may provide cold storages and help in maintaining the safety standards to maintain their brand value.
  - It works on two models, with their distinct advantages and disadvantages, while market place model, like Ebay, can solve the marketing related problems, it can't address the supply chain related problems and transportation issues. Inventory based model provides end-to-end solution for the producers, however, it can't guarantee them a market linked price for their products and in long run the e-commerce players can start to act as monopsonist buyers and can exploit the small players.
  - Thus, e-commerce can plug some gaps and help the industry in expanding and reaching to new customers, but it must be thoroughly monitored by agencies like CCI in order to be beneficial.
7. *Craze for gold in Indians has led to a surge in import of gold in recent years and put pressure on balance of payments and external value of rupee. In view of this, examine the merits of Gold Monetization Scheme.*

**Hints:**

- India annually imports 800 to 1,000 tons of gold in spite of increasing prices and import bans. Some of the reasons for the high levels of gold imports are:
  - a) Lack of sufficient mineral resources (There are only 3 active gold mines, which meet less than 1 per cent of domestic demand).
  - b) Seen as important investment tool due to:
    - i. Low financial inclusion (access to insurance and saving schemes).
    - ii. Higher return as compared to other investment tools.
  - c) Status Symbol/Part of our Culture
    - In this background, the government approved Gold monetization scheme (GMS). Under this an individual/institution can open a gold savings account with a bank and deposit minimum of 30 gm of gold after certification from a hallmarking centre for short, medium, or long term.
  - **Advantages**
    - a) An individual can earn interest on it and get various tax exemptions.
    - b) GMS will increase supply of gold in market and thus reduce its prices.
    - c) This will also reduce demand for the gold imports and would be useful for balancing Balance of Payment account.
    - d) Will mobilize the large amount of gold lying as an idle asset with households, trusts into productive use.
    - e) This would lead to certification of all the gold lying with people and would provide them information about adulteration with counterfeit or inferior quality metal, which can further nab the shopkeepers engaging in such practices.
    - f) If mobilized gold is considered for meeting the CRR and SLR requirements, then bank would have additional cash for lending purposes.
  - **But the challenges with Gold Monetization Scheme are:**
    - a) People won't give up their gold easily. Women see it as a status symbol and temples treats them as having devotional value.

- b) Its success depends on the interest rates given.
- c) Monetization scheme may lead to some traders importing more gold, in the form of bullion, just in order to earn interest.
8. *“Success of ‘Make in India’ programme depends on the success of ‘Skill India’ programme and radical labour reforms.” Discuss with logical arguments.*

**Hints:**

- Make in India is an initiative of the Government of India to encourage multinational, as well as domestic, companies to manufacture their products in India.
  - Key idea behind is to attract more investment and to create employment opportunities. For this PM is projecting India as land of 3D (democracy, demand and demography).
  - The central problem with scheme is that demography is not skilled as less than 5% of our potential work force gets formal skill training to be employable. (While the corresponding figures are 96%, 80% and 75% respectively for Korea, Japan and Germany).
  - Reason for this is problem with ITI's, i.e., Poor training of trainers. (training capacity is only 3.1 million per annum whereas requirement is to train 13 million), weak institute and industry interaction, Curriculum not upgraded, New courses not introduced, Poor infrastructure (laboratories lack modern equipment and testing facilities).
  - In this background, government has launched a National Skill Development Mission to provide skill training to 40.02 crore people by 2022.
  - Another challenge to make in India is problem with labour sector.
  - Most of these labor laws were enacted 40-70 yrs ago and thus are not in tune with present era.
  - Multiplicity of labor laws (Around 45 labour laws by center, 100 under state governments) leads to problem of implementation.
  - They are very rigid/inflexible. E.g. currently, factories employing 100 workers or more need approval for layoffs).
  - In this background, central government has taken steps like launching of Shram Suvidha Portal, Transparent Labour Inspection Scheme etc., but these are not radical enough. So it should learn from Rajasthan so as to sort out the above problems through bold reforms.
9. *To what factors can the recent dramatic fall in equipment costs and tariff of solar energy be attributed? What implications does the trend have for the thermal power producers and the related industry?*

**Hints:**

- Solar energy tariff and equipment costs is showing dramatic fall in India. For instance - Madhya Pradesh has set a new record for the lowest solar tariff ever at INR 5.05/kWh.
- The recent fall in the bids is a result of a combination of factors:
  - a) Technological advancement – Due to more research and development in the field of solar cells and subsequent increase in efficiency.
  - b) Increasing competition among the bidders and development in economies of scale.
  - c) Improved regulatory outlook - The government is demonstrating more clarity in policy. It goes a long way in helping investors to plan their strategy in India.
  - d) Demand creation through renewable purchase obligations and also due to increased awareness in at least certain sections of society.

- e) More aggressive intent shown by the government to expand renewable energy infrastructure - The entire solar action under the National Solar Mission (NSM) has been largely fair, transparent and hasn't witnessed any crony capitalism. This has helped companies that have no track record in the power sector to quickly ramp up and become leaders in the solar sector.
- f) Strategic interest especially from companies that are looking to enter India. Most European and North American solar market are in the slump and India remains one of the few bright spots on the world solar map. Such investors want a foothold in what is the largest solar market in the coming years. This demonstrates the ability of investors to compromise the returns of the present in the hope of a larger market share in the future.
- g) Revival in economic activity partly due to fall in lending rates.
- It is important to note here that, solar energy is now faster to build, cheaper than new coal fired power plants, less prone to fuel volatilities and less regulated from an environmental clearance perspective (which can be quite tough in India). It is also a clean source of power.
  - It also goes well with our INDCs committed as part of the COP-21 framework. All these factors will lead towards less demand for thermal power. It may have lots of implications - more debt, less revenues and closing up of some plants in the longer run.
  - But in the near future due to less understanding on how solar energy will overcome limitations posed in areas of power load, quality of the grid, the weather itself, the energy mix, power pricing and the fact that large section of population is devoid of electricity will amount to very less effect on the thermal sector.
10. *There is a clear acknowledgement that Special Economic Zones (SEZs) are a tool of industrial development, manufacturing and exports. Recognising this potential, the whole instrumentality of SEZs require augmentation. Discuss the issues plaguing the success of SEZs with respect to taxation, governing laws and administration.*

**Hints:**

- SEZ is a geographical region that has economic laws different from a country's typical economic laws (i.e. reduced taxes, tariffs and bureaucratic burdens). Usually the goal is to increase foreign investments and to boost exports.
- **Challenges faced by SEZs -**
  - a) The biggest challenges faced by SEZ's in today's scenario is the acquisition of agricultural land from the farmers. The farmers are being paid disproportionate money which is not in lieu of the current land prices. Hence faces revolt from local people.
  - b) Regional bias: Six States, namely, Andhra Pradesh, Maharashtra, Gujarat, Tamil Nadu, Kerala, and Karnataka account for nearly 90% of the SEZs established so far.
  - c) Sectoral bias: SEZs are mainly IT/ITeS dominated. Manufacturing SEZs are not much visible. Also multi-product SEZs are rare.
  - d) Out of almost 400, only 185 are functional. And within the functional ones, the majority of the zones do not have full occupancy.
- **Following are some of the key issues, which have led to delay in execution of projects.**
  - a) Adverse business climate due to global recession.
  - b) Delay in approvals from statutory/State Government bodies.
  - c) Delay in environmental clearance.
  - d) Lack of demand for space in SEZs.
  - e) Changed fiscal incentive regime for SEZs etc.

- f) Lack of simplified procedures.
- g) Problem of land acquisition.
- h) Issue of tax terrorism as recently witnessed in cases of additional tax demands by Cairn and FII's on MAT issue.
- i) Fiscal benefits and duty concessions, i.e., exemption from various taxes like customs, excises, income tax, MAT (minimum alternate tax), service tax, etc. are not up to the demand of developers.
- j) Poor execution of labour reforms.

11. *What do you understand by "Standard Positioning System" and "Precision Positioning System" in the GPS era? Discuss the advantages India perceives from its ambitious IRNSS programme employing just seven satellites.*

**Hints:**

- The Standard Positioning System is a service supplied from the net of satellites of system GPS. The SPS is used for civil uses, while service PPS remains classified to the military use. The SPS concurs to construct simple and economic receivers and works on one single frequency. The Precision Positioning System (PPS) is a service supplied from the net of satellites of the system Global Positioning System (GPS) specific for the military use.
- The **Indian Regional Navigation Satellite System** or **IRNSS** is an indigenously developed Navigation Satellite System that is used to provide accurate real-time positioning and timing services over India and region extending to 1500 km around India. The advantage India perceives from its ambitious IRNSS programme:-
  - a) Navigation - Will provide time-location coordinates on land, sea and air & Fleet Management e.g. taxi or truck company can monitor whether their driver is on right path or not.
  - b) Surveying and Town/Construction Planning.
  - c) Disaster Management.
  - d) IRNSS can provide synchronized time information.
  - e) Security - During war, naval fleet management can use it.
  - f) Agriculture - monitoring farms, etc.
  - g) Satellites can be used for precision guiding of missiles, bombs and aircraft.
  - h) Cell phone apps- for mapping, driving, hiking in jungle and remote areas.
  - i) Troops can use satellite data- will serve both civil and military users.
  - j) Forest department- putting out wildfire, tracking endangered animals.

12. *What are the areas of prohibitive labour that can be sustainably managed by robots? Discuss the initiatives that can propel research in premier research institutes for substantive and gainful innovation.*

**Hints:**

- Robotics is growing leaps and bounds in recent times in areas which need increased precision, reducing human elements, faster work, and flexibility in switching from one task to the other. There are talks in market of deploying robotic inventions in the area of prohibitive labour like manual scavenging, sewage treatment, underground mining, rescue relief and rehab in times of disaster, at battle-sites to reduce casualties, etc.



- Involving robots in these areas is going to need very aggressive approach towards research and development. Various initiatives to propel the research in premier research institutes for substantive and gainful innovation can be as follows:-
- a) Invite certain eminent scholars in robotics area every year.
  - b) Allocating funds specifically for R&D to address the shortage of funds.
  - c) Not only funds but proper infrastructure should also be provided to attract eminent scientists from the country to stay in the country and do research.
  - d) Incentivizing innovation done at personal level - e.g. - Agribot - an agricultural robot to work on fields.
  - e) Giving it the sunrise status for extending tax sops for 20 years as was done to promote IT sector.
  - f) Giving tax and non tax benefits in general to attract international companies to establish their research centres in the country.
  - g) Use make in India to promote robotics sector in the country.
13. *Discuss the advantages and security implications of cloud hosting of servers vis-a-vis in-house machine-based hosting for government businesses.*

**Hints:**

- Cloud hosting services provide hosting for websites on virtual servers which pull their computing resource from extensive underlying networks of physical web servers. It follows the utility model of computing in that it is available as a service rather than a product whereas in In-house machine based hosting company houses its own servers.
- **Advantage of cloud hosting over in-house machine**
  - a) No need for onsite hardware or capital expenses. Well suited to rapidly growing companies that may outgrow their infrastructure too quickly.
  - b) Easily scalable; can be added to as needed. Solutions are often on-demand, so only pay for the options one's want.
  - c) Workers can connect from anywhere, using any computer, tablet, or smart phone. Companies can implement BYOD (bring your own device) policies.
  - d) Data can be backed up in the cloud as regularly as 15-minute intervals, minimizing data losses in disaster situations.
- **Advantage of in-house machine over cloud hosting**
  - a) Gives physical control over server.
  - b) Keeps critical data in-house; no third party has access to information.
  - c) No need to rely on an Internet connection for access to data.
  - d) Can be more cost-effective for companies that are not as concerned about uptime.
- **Security implication of cloud hosting**
  - a) All of the traffic (data) travelling between one's network and whatever service the person is accessing in the cloud must traverse the internet. Therefore the internet connection should be secure.
  - b) The data should be securely encrypted when it's on the provider's servers to secure the stored data.
  - c) Data stored on a cloud provider's server can potentially be accessed by an employee of that company, and the owner of the data has none of the usual personnel controls over those people.
  - d) Every cloud-based service shares resources, but attacks have surfaced in recent years that target the shared technology inside Cloud Computing environments.

14. *India's Traditional Knowledge Digital Library (TKDL) which has a database containing formatted information on more than 2 million medicinal formulations is proving a powerful weapon in country's fight against erroneous patents. Discuss the pros and cons of making this database publicly available under open-source licensing.*

**Hints:**

- India possesses a rich traditional knowledge which is generally being passed down by word of mouth from one generation to another. Most part of this traditional knowledge is inaccessible to common people, since it is described in ancient classical and other literature in Sanskrit language. There is also a threat of misuse of such knowledge through obtaining patents on non-original innovations which is a great loss to the country. TKDL addresses these issues.
  - TKDL is an initiative to provide the information on traditional knowledge existing in the country, in languages and format understandable by patent examiners at International Patent Office's (IPOs), so as to prevent the grant of wrong patents.
  - TKDL has signed agreements with European Patent Office (EPO), United Kingdom Trademark and Patent Office (UKPTO) and United States Patent and Trademark Office (USPTO) to protect traditional knowledge from bio-piracy by giving the examiners at International Patent Office access to the TKDL database for patent search and examination purpose.
  - With patent examiner getting access to TKDL database, legal cases regarding unethical patent claims, which in the past have taken years and vast expenditure for bringing each case to fruition, should be avoided.
  - But as the data is open of TKDL, lawyers can eventually work around the existing information to meet the requirements of inventive step for obtaining a patent grant.
  - Similarly it can open a world of information for the researchers in west, but chances are instead for using it for research and scholarship on traditional medicine, they might use it for corporate profits without giving due credits and references and thus, devoiding Indian traditional knowledge its due respect.
15. *Discuss the Namami Gange and National Mission for Clean Ganga (NMCG) programmes and causes of mixed results from the previous schemes. What quantum leaps can help preserve the river Ganga better than incremental inputs?*

**Hints:**

- Ganga is the largest river system of India which provides water for agriculture, industries and drinking in 11 states thus sustaining the life and growth in the country.
- However increased pollution from direct discharge of sewerages, industrial waste and agriculture runoff has put the sustainability of this river system in danger.
- Government of India has launched several programmes to clean the river. In 1986 the Ganga action plan was launched to reduce the pollution load on river. Here, government targeted to treat the million litres of sewerage before discharging in river but due to poor response from local bodies, corruption and poorly built treatment infrastructure lead to the failure of the programme.
- National River Ganga Basin Authority (NRGBA) was established by government to carryout monitoring the cleaning projects of the river. But National Ganga River Basin Authority has also failed to bring the visible change.
- SC intervened and asked the government to remove all the polluting industries from the river front and to relocate them. Now government launched national Mission for clean Ganga and Namami Ganga Projects.
- NMCG is the implementation wing of NRGBA. It will also act as coordinating body at national level.
- The plan formulated for Ganga Rejuvenation provides for 'Short-term', 'Medium-term', and a 'Long-term' action plan, incorporating the projects already sanctioned by National Ganga River Basin

Authority(NGRBP). National Ganga Monitoring Centre (NGMC) is conceptualized as a Nodal Centre for monitoring the critical aspects of Ganga rejuvenation, such as water and effluent quality at identified suitable locations throughout Ganga, using IT enabled systems, etc.

- Despite all these plans by other Ministries, the Ganga rejuvenation task seems to be impossible because according to India's constitution, rivers are essentially state subjects and no state is likely to welcome such an infringement from the Centre into what the states see as their domain of responsibility. Thus, the centre-state relations will play a major role in rejuvenation of Ganga along with the bureaucratic attitude towards the herculean task.

16. *The frequency of earthquakes appears to have increased in the Indian subcontinent. However, India's preparedness for mitigating their impact has significant gaps. Discuss various aspects.*

**Hints:**

- India has been traditionally vulnerable to earthquakes, floods, droughts, cyclones etc. About 60% of the landmass is prone to earthquake of different intensities. Even as enormous scientific and material progress is made, it is unfortunate that a huge number of human and economic losses have mounted.
- This is because we hardly have a policy on systematic disaster management. Government as well as other disaster management agencies becomes mobilized only after the disasters occur. Some of the major weaknesses are:
  - a) Inadequate Early Warning System: Though various steps are beautifully articulated on paper, but these do not reach to those likely to be affected in early enough (As in case of Bhuj earthquake, 2001). Communication facilities could have been made better to reduce the heavy damage.
  - b) Lack of Pre-disaster Preparedness: India lacks a systematic arrangement to tackle the disaster successfully to reduce its impact. Not having planned information system regarding the activities to be done during and just after the calamity add to worse impacts. During Tsunami 2004, dead bodies laid floating in water due to unavailability of required equipment to meet the emergency need.
  - c) Inadequate and Slow Relief: The relief operations – Providing food, medicine, water, clothes are handled in ad-hoc and haphazard manner.
  - d) Lack of Co-ordinations: To have a successful and efficient relief programme, concerted efforts are needed for Central Government, State Government, NGO's, International agencies etc. which results in misutilization and in uneven distribution.
  - e) Slow Rehabilitation & Reconstruction: Relief and reserve operations must emphasize on feeding the people and stalling the outbreak of epidemic. Restoration of infrastructure, hospitals, schools, houses and sources of living of the people need to be given proper attention.

17. *Human right activists constantly highlight the view that the Armed Forces (Special Powers) Act, 1958 (AFSPA) is a draconian act leading to cases of human rights abuses by the security forces. What sections of AFSPA are opposed by the activists? Critically evaluate the requirement with reference to the view held by the Apex Court.*

**Hints:**

- The Armed Forces Special Powers Act (AFSPA) is an act empowering armed forces to deal effectively in disturbed areas. Any area which is declared "disturbed" under Disturbed Areas Act enables armed forces to resort to the provisions of AFSPA.
- **Controversial Sections of AFSPA are:**
  - a) The AFSPA violates the following articles:
    - (i) Article 21 – The right to life – is violated by section 4(a) of the AFSPA, which grants the armed forces the power to shoot to kill in law enforcement situations without regard to the restrictions of international human rights law on the use of lethal force;

- (ii) Article 14 - The right to equality - This article guarantees that "the State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India";
- (iii) Article 22- Protection against arrest and detention. Article 22 of the Indian Constitution provides protection against arrest and detention and under section 5 of the AFSPA, a person arrested must be handed over to the nearest police station with the least possible delay along with the circumstances occasioning such arrest but this has not been followed at all.
- b) The Armed Forces (Special Powers) Act has come in for widespread criticism in Jammu and Kashmir, Manipur and other parts of the North-Eastern India, because of the human rights abuses that have come to be associated with its operation.
- c) AFSPA does not distinguish between a peaceful gathering of five or more persons (even if held in contravention of Section 144 of the Criminal Procedure Code) and a violent mob. Firing upon the latter may sometimes be justified by necessity; shooting into a peaceful assembly would surely fail any test of reasonableness.
- d) Human Rights Watch alleged that of the thousands of "disappearances" that occurred within the region in the years following 1989, were mainly militants killed by security forces and buried in unmarked graves. Human Rights Watch also claims that torture by security forces is widespread, and that militants are routinely executed by security forces without trial simply because they pose a security threat.
- e) Additionally, a number of cases of innocent people being killed by security forces under the cover of AFSPA exist. In one case, four civilians including an 8-year old, were shot at and killed by security forces while playing cricket.
- f) The AFSPA has violated women's rights for a long time. Many cases of wrongful arrest, torture and rape have occurred since AFSPA was imposed. The cases of sexual assault by army officials also exist.
- **But if the AFSPA get diluted then:**

a) It would dilute the capacity of an important instrument of the state - the armed forces - to tackle the security challenges faced by the country.

b) It would motivate the insurgent leadership, field cadres and their over ground supporters to engage in reckless damage to public life and property. It may well result in a security situation which slides beyond redemption, necessitating major political compromise.

c) The annulment of the law and the resultant lack of security cover would adversely affect the governance and development capacities in the insurgency affected states, and the eventual redress of local grievances.
  - **Critical Evaluation:** Supreme Court formed a commission under Santosh Hegde for investigation of encounter by armed forces in Manipur. The commission found that none of the victim had any criminal records. In 1997 under Naga rights case, the Apex Court had laid down a number of do's and don'ts for AFSPA to prevent the misuse of special powers under AFSPA. Such as arrested person should be handed over to nearest police station with least possible delay or do not use any force after having arrested a person except when he is trying to escape.
  - Hence to maintain the human rights recommendations of various committees as Punchhi Commission held that constitutional power of Governor to declare an area as disturbed shall be restricted or reviewed in every 3 months. Justice Verma Committee (2013) also suggested that armed personnel shall be subjected to ordinary law in case of sexual violence against women.
18. *Religious indoctrination via digital media has resulted in Indian youth joining the ISIS. What is ISIS and its mission? How can ISIS be dangerous to the internal security of our country?*

**Hints:**

- ISIS is a jihadist militant group that adheres to an Islamic fundamentalist, Wahhabi doctrine of Sunni Islam. The group has referred to itself as the Islamic State or IS since it proclaimed a worldwide caliphate last year.

- As a caliphate, it claims religious, political and military authority over all Muslims worldwide. Its mission is to seize the earth/world and to establish Islamic rule all over the world.
- **Threat to India:**
  - a) India's Muslim population (17.2 Cr) is the world's 3<sup>rd</sup> largest and worrying fact is that majority of them are Sunnis, which are targeted by ISIS. Further poor economic condition of Muslims in India is also a matter of concern for the country as the mix of money and religion can act as a big attractive trap.
  - b) ISIS can become the fulcrum of terrorism against India, thereby focusing the combined energy of different groups under its umbrella.
  - c) ISIS can be supported by Pakistan's Inter-Services Intelligence (ISI), thereby providing it a well-established intelligence and logistic network, in a symbiotic relationship.
  - d) There are around seven million Indians living in the Gulf region which is most influenced region of ISIS. There is always a possibility of some of them coming in contact with the radical elements at the Gulf region and help them to reach inside India.
  - e) ISIS group mastered the art of exploiting social media and the internet and employed simple, yet powerful messages to attract fighters and supporters from across the world.
- Hence ISIS has become a threat to India as many Indians are going to join it.

19. *The persisting drives of the Government for development of large industries in backward areas have resulted in isolating the tribal population and the farmers who face multiple displacements. With Malkangiri and Naxalbari foci, discuss the corrective strategies needed to win the Left Wing Extremism (LWE) doctrine affected citizens back into the mainstream of social and economic growth.*

**Hints:**

- Exploitation of natural resources with no regard for indigenous people, abridging tribal land rights for national parks or wildlife sanctuaries, poverty, unemployment, and underdevelopment are major reasons that allowed the tribals and farmers in central and east India to fall prey to LWE ideology against the state.
- While on the face they can observe injustice meted to them by the state, they are oblivious to the objectives of Naxals and Maoists, whose only objective is to capture power without paying any heed to human rights and the very morals they preach to convince people to go against the state.
- Thus, it is utmost responsibility of government to not only secure justice for these people, but also to create awareness regarding true face of LWE. Some of the strategies that can be adopted for this purpose are:
  - a) Resolve the pending cases of Rehabilitation and Resettlement in LWE affected areas at top priority to build confidence within the LWE doctrine affected citizens.
  - b) Surrender scheme shall be subjected to minimum procedural requirements and shall be implemented at faster pace to provide justice. Further, only heinous or rare crimes shall face trial in court and even with minute punishment provisions as far as possible.
  - c) One of the key objectives should be to work towards technology penetration – for instance, electricity and mobile phone reach – in the tribal areas. For this purpose, government has approved mobile towers at 2199 locations in 10 LWE affected states in August, 2014.
  - d) Another important objective should be to link relatively undeveloped tribal areas with developed areas through good infrastructure such as building national highways in those areas.
  - e) Civic Action Program by CAPFs to undertake civic action in the affected states. The idea is to win the hearts and minds of local communities through small development schemes, which to some extent will mitigate the problems of people living in insurgency hit areas and also bring goodwill to security forces.

- f) Emphasizing on collection, digitization and dissemination of vast repository of the ancient knowledge of the tribals.
- At same time, Government shall also focus on strengthening police stations and forces such as recent govt scheme of fortified police stations.
  - Further there is need to create critical infrastructure in LWE areas in relation to requirements of mobility for the police/security forces by upgrading existing roads/tracks in inaccessible areas, providing secure camping grounds and helipads at strategic locations in remote and interior areas, measures to enhance security in respect of police stations/outposts located in vulnerable areas etc.
20. *Considering the threats cyberspace poses for the country, India needs a “Digital Armed Forces” to prevent crimes. Critically evaluate the National Cyber Security Policy, 2013 outlining the challenges perceived in its effective implementation.*

**Hints:**

- Information technology (IT) has exposed the user to a huge data bank of information regarding everything and anything. However, it has also added a new dimension to crime and has left the sensitive and often secret information at risk of exposure.
- It is quite evident from India’s experience so far, that the traditional security forces, like the Police and armed forces are not properly equipped to deal with such challenges and though some departments and units have cyber experts, as a whole we lack a centralized and organized cyber army with pan-India presence.
- The Cyber Security Policy 2013 was made to modernize the Cyber security system and to create enabling laws to deal with cyber threats. Some of its concerned objectives included:
  - a) To strengthen the Regulatory Framework for ensuring a secure cyberspace ecosystem.
  - b) To create workforce for 5,00,000 professionals skilled in next 5 years through capacity building, skill development and training.
  - c) To enable Protection of information while in process, handling, storage & transit so as to safeguard privacy of citizen’s data and reducing economic losses due to cyber crime or data theft.
  - d) To enable effective prevention, investigation and prosecution of cybercrime and enhancement of law enforcement capabilities through appropriate legislative intervention.
- Indian Armed forces are in the process of establishing a cyber command as a part of strengthening the cyber security of defence network and installations. Creation of cyber command will entail a parallel hierarchical structure and being one of the most important stakeholders, it will be prudent to address the jurisdiction issues right at the beginning of policy implementation.
- However, all these objectives are not immediately feasible and have also left certain gaps in overall envisaged framework, such as:
  - a) No clear regulatory framework is suggested and at present all the cyber departments under police and armed forces are working independently and often with parallel authority. Ideally a nodal body must be formed under NSA.
  - b) In order to start with this task Computer Emergency Response Team (CERT-In) has been designated to act as a nodal agency for coordination of crisis management efforts, but it comes into picture only for crisis management and not for regular monitoring, making it further confusing.
  - c) The provisions to take care of security risks emanating due to use of new technologies, e.g., Cloud Computing, has not been addressed.
  - d) Another area which is left untouched by this policy is tackling the risks arising due to increased use of social networking sites by criminals and anti-national elements.

