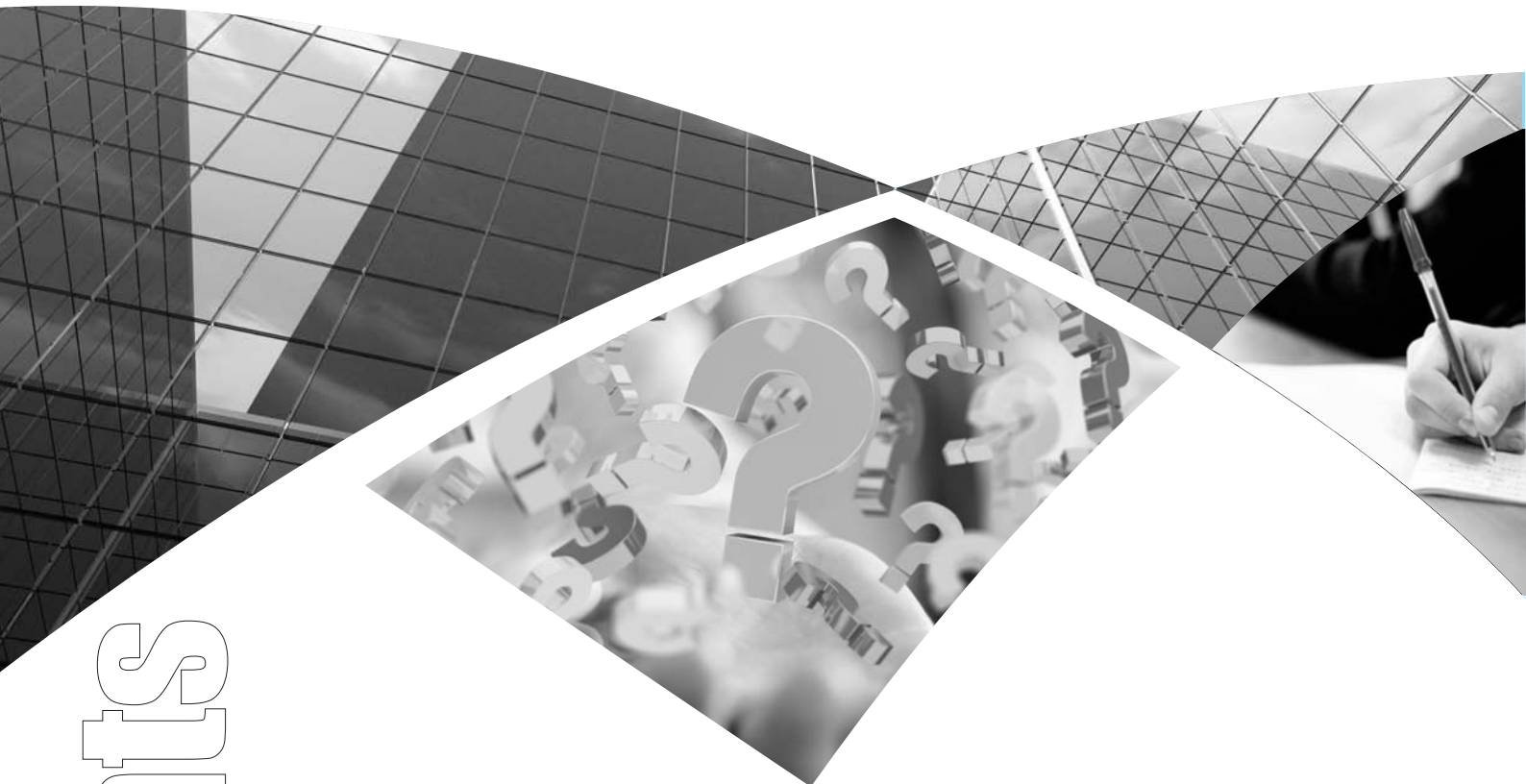


# IAS SCORE

An Institute for Civil Services



Model Hints

UPSC Mains 2018

# Model Hints

GENERAL STUDIES

Paper - III

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# UPSC MAINS 2018

## GS PAPER - 3

*Time Allowed: 3 hr.*

*Max. Marks: 250*

1. "Access to affordable, reliable, sustainable and modern energy is the sine qua non to achieve Sustainable Development Goals (SDGs)". Comment on the progress made in India in this regard. **(Answer in 150 words)**
2. Comment on the important changes introduced in respect of the Long term Capital Gains Tax (LCGT) and Dividend Distribution Tax (DDT) in the Union Budget for 2018-2019. **(Answer in 150 words)**
3. What do you mean by Minimum Support Price (MSP)? How will MSP rescue the farmers from the low income trap? **(Answer in 150 words)**
4. Examine the role of supermarkets in supply chain management of fruits, vegetables and food items. How do they eliminate number of intermediaries? **(Answer in 150 words)**
5. Discuss the work of 'Bose-Einstein Statistics' done by Prof. Satyendra Nath Bose and show how it revolutionized the field of Physics. **(Answer in 150 words)**
6. What are the impediments in disposing the huge quantities of discarded solid wastes which are continuously being generated? How do we remove safely the toxic wastes that have been accumulating in our habitable environment? **(Answer in 150 words)**
7. What is wetland? Explain the Ramsar concept of 'wise use' in the context of wetland conservation. Cite two examples of Ramsar sites from India. **(Answer in 150 words)**
8. Sikkim is the first 'Organic State' in India. What are the ecological and economical benefits of Organic State? **(Answer in 150 words)**
9. The China Pakistan Economic Corridor (CPEC) is viewed as a cardinal subset of China's larger 'One Belt One Road' initiative. Give a brief description of CPEC and enumerate the reasons why India has distanced itself from the same. **(Answer in 150 words)**
10. Left Wing Extremism (LWE) is showing a downward trend, but still affects many parts of the country. Briefly explain the Government of India's approach to counter the challenges posed by LWE. **(Answer in 150 words)**
11. How are the principles followed by NITI Aayog different from those followed by the erstwhile planning commission in India? **(Answer in 250 words)**
12. How would the recent phenomena of protectionism and currency manipulations in world trade affect macroeconomic stability of India? **(Answer in 250 words)**
13. Assess the role of National Horticulture Mission (NHM) in boosting the production, productivity and income of horticulture farms. How far has it succeeded in increasing the income of farmers? **(Answer in 250 words)**

14. How has the emphasis on certain crops brought about changes in cropping patterns in recent past? Elaborate the emphasis on millets production and consumption. **(Answer in 250 words)**
15. Why is there so much activity in the field of biotechnology in our country? How has this activity benefitted the field of biopharma? **(Answer in 250 words)**
16. With growing energy needs should India keep on expanding its nuclear energy programme? Discuss the facts and fears associated with nuclear energy. **(Answer in 250 words)**
17. How does biodiversity vary in India? How is the Biological Diversity Act, 2002 helpful in conservation of flora and fauna? **(Answer in 250 words)**
18. Describe various measures taken in India for Disaster Risk Reduction (DRR) before and after signing 'Sendai Framework for DRR (2015-2030)'. How is this framework different from 'Hyogo Framework for Action, 2005'? **(Answer in 250 words)**
19. Data security has assumed significant importance in the digitized world due to rising cyber-crimes. The Justice B. N. Srikrishna Committee Report addresses issues related to data security. What, in your view, are the strengths and weaknesses of the Report relating to protection of personal data in cyber space? **(Answer in 250 words)**
20. India's proximity to two of the world's biggest illicit opium-growing states has enhanced her internal security concerns. Explain the linkages between drug trafficking and other illicit activities such as gunrunning, money laundering and human trafficking. What countermeasures should be taken to prevent the same? **(Answer in 250 words)**

GS SCORE

# UPSC MAIN EXAMINATION

## (GENERAL STUDIES PAPER - 3)

### HINTS

1. *“Access to affordable, reliable, sustainable and modern energy is the sine qua non to achieve Sustainable Development Goals (SDGs)”. Comment on the progress made in India in this regard.*

#### Approach

1. *Briefly introduce the importance of SDGs (20 words)*
2. *Discuss means to achieve the goal (40 words)*
3. *Elaborate steps taken by India in this regard (60 words)*
4. *Way ahead (30 words)*

#### Hints:

Energy is the golden thread that connects economic growth, social equity, and environmental sustainability. It generates a consistent stream of power to meet basic human needs, maintain and improve social functioning, and advance living standards. Validating the same, SDG-7 commits affordable and clean energy for all.

#### Achieving the goal

To expand energy access, it is crucial to enhance energy efficiency and to invest in renewable energy. India is projected to be a significant contributor to global energy demand, contributing around one-quarter of the total. Thus, energy produced should be as sustainably as possible—that is to say, the power generated by energy use should be much greater than the resulting waste and pollution.

India has a vast renewable energy potential through wind, solar, biomass and small hydro which is concentrated in certain parts of the country. But to tap on these endowments, India's renewable energy sector requires significant financing.

#### Steps taken by India:

- India intends to achieve 40% cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030, as one of the ways to curb global temperature increase.
- Indian Government has also focussed its attention on rural clean energy sector by supporting distributed generation in the form of community-based, self-sufficient biomass and solar power.
- National Solar Mission also has an ambitious goal of providing 2 crore solar lighting systems in place of kerosene lamps to rural communities.
- Installations of solar power systems, particularly on rooftops, all over the country. The target of 40 GW roof top solar by 2022 will result in abatement of about 6 crore tonnes of carbon-dioxide per year.

Access to affordable, reliable, sustainable and modern energy is integral to global development in the twenty-first century. But, there are challenges that require a pragmatic, multi-faceted approach. Solutions need to be developed at both local and global scale, where Governments and agencies must work together.

Thus, a robust national framework for implementation and funding support for states would be critical to achieve the desired targets. A dedicated nodal agency at the centre to coordinate effectively with the state level agencies could help.

2. *Comment on the important changes introduced in respect of the Long term Capital Gains Tax (LCGT) and Dividend Distribution Tax (DDT) in the Union Budget for 2018-2019.*

### **Approach**

1. *Introduce both the concepts (60 words)*
2. *Discuss highlights of Budget 2018 (60 words)*
3. *Way ahead (20 words)*

*Hints:*

#### **Dividend Distribution Tax (DDT)**

Dividend is the return given by a company to its shareholders out of profits earned by the company in a particular year. Dividend constitutes income in the hands of the shareholders which ideally should be subject to income tax. However, the income tax laws in India provides for an exemption of dividend income received from Indian companies in the hands of the investors by levying a tax called the DDT on the company paying dividend.

#### **Long Term Capital Tax**

Any profit or gain that arises from the sale of a 'capital asset' is a capital gain. This gain or profit is considered as income and hence charged to tax in the year in which the transfer of the capital asset takes place. This is called capital gains tax, which can be short-term or long-term. Capital gains are not applicable when an asset is inherited because there is no sale, only a transfer.

#### **Budget-2018:**

Budget has proposed introduction of DDT in case of equity mutual funds.

- It has proposed an introduction of tax on distributed income by equity-oriented mutual funds at the rate of 10 percent, to provide a level field across growth oriented and dividend distributing schemes.
- DDT will reduce the in-hand return to investor, if the dividend option is opted for. Dividend, however, remains tax-free in the hands of the investor. The fund houses will have to deduct DDT before distributing dividend.

Budget 2018 proposes to change how LTCG on equity shares and units of equity-oriented MFs are taxed.

- Now, tax has to be paid for capital gains on stock which are sold after holding it for over 1 year.
- The LTCG tax on the sale of shares listed on the stock exchange after long-term holding is taxable at 10% of the capital gain (exceeding Rs 1 lakh).
- Up to Rs 1 lakhs, the long-term capital gain is exempted from taxation.

3. *What do you mean by Minimum Support Price (MSP)? How will MSP rescue the farmers from the low income trap?*

### **Approach**

1. *Define MSP (20 words)*
2. *Briefly explain its importance (60 words)*
3. *Discuss the highlights of Budget 2018 (50 words)*
4. *Conclusion (20 words)*

*Hints:*

Minimum Support Price is the price at which government purchases crops for the farmers, to safeguard the interests of the farmers. It is an important part of India's agricultural price policy. It supports the food security program through PDS and also gives sufficient remuneration to the farmers.

## Benefits

- When market prices fall below the announced MSPs, procurement agencies step in to procure the crop and 'support' the prices.
- The FCI and Nafed help the Centre procure select food crops with the help of the States.
- MSPs ensure that farmers get a minimum price for their produce in adverse markets. MSPs have also been used as a tool by the Government to incentivise farmers to grow crops that are in short supply.

## Budget 2018 and MSP-

- The Union Budget 2018–19 has announced the proposal to fix the minimum support prices (MSP) at 50% in excess over the cost of production of crops.
- *Although*, announcements of higher MSPs in the past have not always resulted in increases in farmer incomes as procurement was restricted to wheat, paddy and cotton—and that too only in a few states.

## Way forward

- Provision of providing cheap finance and subsidised inputs to the actual cultivators of land to increase profitability from crop production.
- Further hiking of MSP of major crops.

While MSPs can benefit a small section of rural households, the non-price factors mentioned above can bring in additional benefits to the sector.

4. *Examine the role of supermarkets in supply chain management of fruits, vegetables and food items. How do they eliminate number of intermediaries?*

## Approach

1. *Introduction (20 words)*
2. *Discuss the role of supermarkets (50 words)*
3. *Briefly describe the elimination of intermediaries (30 words)*
4. *Way ahead (50 words)*

## Hints:

Fruits and Vegetable (FFV) are one of the most important components of a retail chain (supermarket). It acts as a strategic product in attracting the customers. Agri-food produces from the farmer's field reach the end consumer through a long chain of intermediaries such as farmers/growers, cooperatives, wholesalers, retailers, commission agents, etc.

As part of supply chain, the retail chains (supermarkets) respond to upstream-side demand and absorb downstream-side risks with the objective to augment, retain, satisfy consumers and gain new revenue opportunities without the creation of excess inventory or capacity.

## Role of supermarkets in the supply chain:

- The concept of agri-supply chain refers to the activities of procurement, order fulfillment, distribution, delivery and customer service executed by two or more separate organizations in the agribusiness industry. Agri-supply chain consists of small and medium enterprises.
- Supply chain collaboration has become the prerequisite for successful procurement and operational business practices for perishable products with the emerging trends of globalization and competitive marketplace.
- Supply chain planning in the agri-food industry integrates the complex network of farmers, demand, and supply to end consumers to enhance operational effectiveness.
- Super markets have eliminated the middleman in the distribution channel which reduces the amount of logistics and transportation required in the movement of goods from manufacturer to consumer. This increases efficiency significantly.

- Manufacturers, for instance, can skip wholesalers and more quickly replenish retailers with stock. Additionally, companies can offer products and websites and quickly ship them to consumers following the purchase.

### Measures for increasing efficient of supply chain

- There is a need for backward linkage with the farmer via contract farming
  - The retail stores have to be organised in a structured way for an efficient distribution of products.
  - There is a need for more cold storages so as to reduce losses due to spoilage.
  - The APMC Act at the state level needs to be amended.
5. *Discuss the work of 'Bose-Einstein Statistics' done by Prof. Satyendra Nath Bose and show how it revolutionized the field of Physics.*

### Approach

- Describe briefly the evolution of Bose-Einstein Statistics along with the specific contribution of S.N. Bose to the theory (75 words)*
- Briefly describe the major applications of this theory in physics (60 words)*
- Conclude with the promise the theory holds for future (15 words)*

### Hints:

#### Contribution of S.N. Bose to 'Bose-Einstein Statistics'

Einstein proposed the particulate nature of light in his theory of photoelectric effect and called these 'light particles' as photons. However, the number and probability of these photons could not be described by the principles of classical statistics. It took the genius of Satyendra Nath Bose to realize that he could apply statistics in a novel way to predict the number and probability of Einstein's photons. This statistics was extended by Einstein himself and went on to describe a whole class of particles called as 'bosons'. Consequently, it was named as 'Bose-Einstein statistics'.

A result of this statistics was that at zero Kelvin temperature, all bosons could condense into a low energy state which was termed as 'Bose-Einstein Condensate'. However, it was only in 1995 that finally this condensate was experimentally made and for which Nobel prize was duly awarded in 2001.

#### How it revolutionized physics

The Bose Einstein condensate, and the process of condensation itself, was predicted to have many unusual properties. This has found numerous applications in areas like:

- Superconductivity
- Developing sensitive detectors for precision measurement
- Applications in quantum computing
- Atomic Clocks

The theory is still being used in numerous research areas and has huge potential for numerous practical applications as the technology develops.

6. *What are the impediments in disposing the huge quantities of discarded solid wastes which are continuously being generated? How do we remove safely the toxic wastes that have been accumulating in our habitable environment?*

### Approach

- Briefly introduce Solid waste. (30-40 words)*
- Discuss about the impediments in disposing the huge quantities of discarded solid wastes in India. (50 words)*
- List down the ways to remove safely the toxic wastes in our environment. (50 words)*
- Conclusion (20 words)*

### Hints:

Solid wastes are the abandoned or discarded materials i.e. any garbage, discarded materials including solid, liquid, semi-solid, or gaseous material, resulting from industrial, commercial, mining and agricultural operations.

### Impediments in disposing the huge quantities of discarded solid wastes:

- The current status of solid waste management (SWM) in India is poor because the best and most appropriate methods from waste collection to disposal are not being used.
- There is a lack of training in SWM and the availability of qualified waste management professionals is limited.
- Municipal authorities are responsible for managing municipal solid waste (MSW) in India but have insufficient budgets to cover the costs associated with developing proper waste collection, storage, treatment and disposal.
- The lack of strategic MSW plans, waste collection/segregation and a government finance regulatory framework are major barriers to achieving effective SWM in India.
- Limited environmental awareness combined with low motivation has inhibited innovation and the adoption of new technologies that could transform waste management in India.
- Public attitudes to waste are also a major barrier to improving SWM in India.

### Treatment and disposal of solid waste

- **Sanitary landfills:** Sanitary landfill is more hygienic and built in a methodical manner to solve the problem of leaching. These are lined with materials that are impermeable such as plastics and clay, and are also built over impermeable soil.
- **Incineration plants:** The process of burning waste in large furnaces at high temperature is known as incineration. In these plants the recyclable material is segregated and the rest of the material is burnt and ash is produced.
- **Pyrolysis:** It is a process of combustion in absence of oxygen or the material burnt under controlled atmosphere of oxygen. It is an alternative to incineration. The gas and liquid thus obtained can be used as fuels.
- **Composting:** Composting is a biological process in which micro-organisms, mainly fungi and bacteria, decompose degradable organic waste into humus like substance in the presence of oxygen.
- **Vermiculture:** In this, Earth worms are added to the compost. These worms break the waste and the added excreta of the worms make the compost very rich in nutrients.
- **Four R's:** Refuse, Reduce, Reuse and Recycle.

7. *What is wetland? Explain the Ramsar concept of 'wise use' in the context of wetland conservation. Cite two examples of Ramsar sites from India.*

### Approach

1. *Briefly introduce wetlands (40 words)*
2. *Discuss about the Ramsar concept of wise use. (60-70 words)*
3. *List down examples of Ramsar sites from India. (30 words)*

### Hints:

Wetlands are defined as the areas of marsh, fen, peatland/water, whether natural or artificial, permanent or temporary with water that is static or flowing, fresh brackish or salt, including areas of marine water the depth of which at low tide does not exceed 6 mtrs.

Wetlands are areas intermediate in character between deep water and terrestrial habitats. These habitats experience periodic flooding from adjacent deep water habitats and therefore support plants and animals specifically adapted to such shallow flooding or water logging of the substrate.



## Ramsar concept of “wise use”

At the centre of the Ramsar Convention philosophy is the “wise use” of wetlands. The Convention defines wise use of wetlands as “the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development”.

Wise use can thus be seen as the conservation and sustainable use of wetlands and all the services they provide, for the benefit of people and nature.

In 1990, the Contracting Parties adopted guidelines for the implementation of the wise use concept which emphasized the importance of:

- Adopting national wetland policies, either separately or as a component of wider initiatives such as national environmental action plans;
- Developing programmes covering wetland inventory, monitoring, research, training, education and public awareness; and
- Taking action at wetland sites, involving the development of integrated management plans covering every aspect of the wetlands and their relationships with their catchments.

## Ramsar sites from India

- Loktak Lake, Manipur was included on the Montreux Record of Ramsar Convention in 1993, as a result of ecological problems such as deforestation in the catchment area, infestation of water hyacinth and pollution.
  - Keoladeo National Park, Rajasthan was placed on the Montreux Record in 1990 due to water shortage and unbalanced grazing regime around it.
8. *Sikkim is the first ‘Organic State’ in India. What are the ecological and economical benefits of Organic State?*

### Approach

1. *Briefly introduce the concept of organic agriculture. (40-50 words)*
2. *Discuss the ecological and economical benefits of it. (60-70 words)*
3. *Conclusion. (20 words)*

### Hints:

Organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity.

It emphasizes the use of management practices in preference to the use of on-farm inputs, taking into account regional conditions require locally adopted systems. This is accomplished by using agronomic, biological and mechanical methods, as opposed to using synthetic materials.

The area under organic cultivation in India is about 5.71 million hectares (2015-16) including cultivable area of 1.49 million hectares (26%) and rest 4.22 million hectares (74%) under forest and wild area harvest. Sikkim has been recently declared as the first organic state in India.

## Ecological and Economical benefits

- Since organic farming addresses soil health, human health and environmental health and is eco-friendly, it is one of the best options for sustainable crop production and crop yields.
- Adoption of organic agriculture in India can bring greater economic benefits to farmers and environmental growth for the nation that emphasizes on more sustainable production systems crucial for achieving food security apart from maintaining natural resources.
- Application of scientific approaches to organic farming practices maintain and in some cases, increase the yield in the long run.

- It sustains bio-diversity, soil fertility and natural ecosystem processes and other services that underpin the agriculture.
  - It allows the farmers to overcome the risk of crop failures and increased cost of production, encourages production of healthy food and fibre of high quality.
  - It also enhances the quality of agro-ecosystem and soil, the health of crops, animals and people maintained through biological processes.
  - Local resources are used in a way that minimizes losses of nutrients, biomass and energy resources.
9. *The China Pakistan Economic Corridor (CPEC) is viewed as a cardinal subset of China's larger 'One Belt One Road' initiative. Give a brief description of CPEC and enumerate the reasons why India has distanced itself from the same.*

### Approach

1. *Describe briefly CPEC. (50 words)*
2. *List the reasons India has distanced itself. (80 words)*
3. *Conclusion (20 words)*

#### Hints:

China Pakistan Economic Corridor (CPEC) is major project of China's One Belt One Road (OBOR) initiative which connects China's Xingjiang to Pakistan's Gwadar port via road, rail and waterways. It is being considered as China's ambitious plan to reach to European and Middle east countries by the shortest possible route for its trade and transport requirements.

#### Reasons why India has distanced itself from the CPEC are:

- **Strategic conflict:** China has developed Gwadar Port in Pakistan which it would handle. This will be dual use of infrastructure which would enable it import and export through it and also service its military vessels.
  - It is strategically challenging to India as it is close to Persian Gulf and Chabahar port through which India imports majority of crude from Iran and Iraq. India also trades extensively with UAE and other Gulf Corporation Council (GCC) countries through this gulf. Through Gwadar port China can potentially disrupt it.
- **Threat to internal security:** Highway through conflicted area of Kashmir to China will allow rapid mobilization of Pakistani troops against India. Also, construction of infrastructure like highway would enable better logistics for terror camps situated in Pakistan occupied Kashmir (PoK) and thus help terrorists.
- **Can aggravate arms race:** CPEC can lead to development in Pakistan would help trade and commerce in Pakistan increasing its prosperity. This increased prosperity could be used by Pakistan to fuel weapon's race with India and fund anti-India activities from its soil.
- **Threat to India' sovereignty:** CPEC passes through Pakistan Occupied Kashmir (POK) which is still a disputed land and integral part of India. Also, China has stepped up its military activity in region on the pretext of security to corridor.
- **Political concerns:** It symbolizes strengthened relationship between China-Pakistan, and increases the chance of China's intervention in bilateral matters of India-Pakistan to protect its own interest.
- **Economic concerns:** This will reduce China's distance to Africa by 12000 kms. The effective use of this corridor will reduce the India's export to Western Europe, West Asia and Africa. India was having an advantage of shorter sea route to Africa and Europe, which will be challenged after CPEC's successful implementation.

India needs to be wary of the development and should keep a close watch on this as it develops and build on its capacity in Arabian Sea to counter any strategic challenges and "strings of pearl theory".

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

### Approach

1. *Substantiate the given statement with facts or data. (50 words)*
2. *Give details of the approach that GoI has adopted to deal with LWE. (100 words)*

#### Hints:

As per reports, the total area affected by Naxalism has shrunk to 90 districts of the country from 165 districts and at least 122 Maoists have been killed across the country in the first six months of 2018 which is highest in past eight years. So, it is true to say that the trajectory of LWE has been showing a downward trend.

The Government's approach is to deal with Left Wing Extremism in a holistic manner, in the areas of security, development, ensuring rights and entitlements of local communities, improvement in governance and public perception management.

However, Police and Public Order being State subjects, action on maintenance of law and order lies primarily in the domain of the State Governments.

The Central Government closely monitors the situation and supplements and coordinates their efforts in several ways. These include:

- Providing Central Armed Police Forces (CAPFs)
- Sanction of India Reserve (IR) battalions, setting up of Counter Insurgency and Anti-Terrorism (CIAT) schools.
- Modernisation and upgradation of the State Police and their Intelligence apparatus.
- Re-imbursement of security related expenditure under the Security Related Expenditure (SRE) Scheme.
- Providing helicopters for anti-LWE operations.
- Assistance in training of State Police through the Ministry of Defence, the Central Police Organisations and the Bureau of Police Research and Development.
- Sharing of Intelligence with concern states and state departments.
- Facilitating inter-State coordination.
- Assistance in community policing and civic action programmes.

The Union Home Minister enunciated an integrated strategy through which the LWE can be countered with full force and competence. The new strategy is called **SAMADHAN**, which is a compilation of short term and long term policies formulated at different levels.

11. *How are the principles followed by NITI Aayog different from those followed by the erstwhile planning commission in India?*

### Approach

1. *Introduction about NITI Aayog (40 words)*
2. *Loopholes in Planning Commission as an institution (50 words)*
3. *Discuss the working of NITI Aayog (80 words)*
4. *Difference between the two. (60 words)*
5. *Conclusion (20 words)*

#### Hints:

The NITI Aayog, established in 2015, is one of India's youngest institutions. It is mandated to foster cooperative federalism, evolve a national consensus on developmental goals, redefine the reforms agenda, act

as a platform for resolution of cross-sectoral issues between Center and State Governments, capacity building and to act as a Knowledge and Innovation hub.

It has been entrusted with the mandate of re-imagining the development agenda by dismantling old-style central planning.

**Planning Commission:**

The Planning Commission from 1950 to 2014 formulated twelve five year plans. An internal evaluation in Government revealed that Planning Commission was witnessing policy fatigue necessitating structural changes in central planning process.

The assessment identified that the collapse of public investment in the face of rising subsidies, huge demands on public resources from the Right to Education Act, the National Rural Employment Guarantee Act and a poorly targeted Public Distribution System. Further rigid labor laws were impeding progress, and there were difficulties in releasing land for public housing and other public projects. Thus a new Institutional framework was needed.

**Works undertaken by NITI Aayog**

- The NITI Aayog formulated the Make in India Strategy for Electronics Industry, a Model Land Leasing Law, laid down a National Energy Policy, prepared a Roadmap for Revitalizing Agriculture, designed a Developmental Strategy for North East and Hilly areas and undertook an appraisal of the 12<sup>th</sup> Five Year Plan.
- An agricultural transformation was envisaged with the objective of doubling farmer’s income by 2022.
- Further, it monitors the implementation of the Sustainable Developmental Goals.

**Difference in their working:**

Points	Planning Commission	NITI Aayog
1. Approach	Top-down planning approach	Bottom up approach
2. Finance	Allocation of funds to different institutions such as Finance Commission was decided by it	It doesn't have any role in fund allocation.
3. Composition	It had deputy chairperson, a member secretary, and full-time members.	It has two new posts of CEO of secretary rank, and Vice-Chairperson.
4. Role of states	It was a central government institution and no representation of state government.	It provides a partnership with state governments to promote co-operative federalism.

Thus, NITI Aayog has undertaken path breaking work in last years and the nation can look forward to the Institution imparting a new dynamism to India’s developmental process in the coming years.

12. *How would the recent phenomena of protectionism and currency manipulations in world trade affect macroeconomic stability of India?*

**Approach**

1. *Briefly introduce the concept of macroeconomic stability (60 words)*
2. *Elaborate on macroeconomic stability in India (60 words)*
3. *Discuss the dangers from protectionism and currency manipulation (80 words)*
4. *Way forward (40-50 words)*

**Hints:**

Macroeconomic stability refers to a situation where the national economy has minimized its vulnerability to the impact of external shocks and crisis.

To understand the idea of macroeconomic equality, certain indicators/ variables must be applied and the resultant inference determines the degree of stability achieved by a particular national economy. These are:

1. Low deficits – fiscal and revenue
2. Low and stable inflation
3. Low Debt/GDP ratio
4. Low long-term interest rates

### **Macroeconomic stability in India**

India's maintenance of its macroeconomic stability has been rather good in last 5 years and has improved on almost all the above parameters mentioned.

While fiscal deficit has reduced from nearly 5 percent to 3.2 percent today and Debt/GDP ratio has also reduced during the last decade. The performance regarding inflation has also been quite consistent and it has kept under 5 percent for most of the time. The Macro-Economic Vulnerability index was introduced in Economic Survey 2014-15. It adds up country's fiscal deficit, current account deficit, and inflation. It shows India has improved most against other major emerging markets since 2012.

### **Emerging dangers to stability:**

Rising oil prices along with protectionism and currency manipulation are some of the biggest dangers threatening India's economic stability.

**Trade protectionism** is re-emerging as a controversial tactic among policymakers and economists in enhancing a nation's economic well-being. Trade protectionism has been used with the intent of helping a nation recover from an economic downturn. Of-late, it has been adopted by the western countries, particularly to nullify the effect of currency manipulation by China in recent years, which has flooded their markets with cheap Chinese products.

However, for countries like India, it has led to a dual problem, on the one hand, Indian imports and domestic industry is affected by the cheap Chinese imports, which has increased import bill, affected domestic industrial base and tax base accordingly. On the other hand, protectionism adopted by western countries has affected India's exports, as India primarily export to western countries. As a result, exports growth rate has slowed down significantly. Export markets too are changing, with a decline in share of Europe and USA.

This has a significant bearing on India's CAD and fiscal deficit, which can disrupt entire macroeconomic balance of the country.

### **Way forward:**

Of late, India's has also been forced to resort to protectionism. In the recent budget, government has increased domestic content requirement for many industries and raised tariffs and duties to incentivize domestic production. While, it may have its associated cost-hikes, but in the present scenario, it is forced upon India to adopt such policy.

**13. Assess the role of National Horticulture Mission (NHM) in boosting the production, productivity and income of horticulture farms. How far has it succeeded in increasing the income of farmers?**

### **Approach**

1. **Briefly introduce horticulture (40 words)**
2. **Discuss about NHM (60 words)**
3. **State its advantages (80 words)**
4. **Suggestive measures (40 words)**
5. **Conclusion (30 words)**

### **Hints:**

Horticulture has emerged as the main growth engine of Indian agriculture in the last two decades with spectacular performance in term of production. Horticulture contributes 30.4 per cent to GDP of agriculture from nearly 13 per cent of the total cropped area and support nearly 20 per cent of the agricultural labour force.

India has witnessed voluminous increase in horticulture production over the last few years. Over the last decade, the area under horticulture grew by about 2.7 per cent per annum and annual production increased by 7.0 per cent.

### **National Horticulture Mission:**

NHM was launched as a Centrally Sponsored Scheme to promote holistic growth of the horticulture sector through an area based regionally differentiated strategies. The mission envisages production and productivity improvement of horticulture crops including fruits and vegetables through various interventions.

This scheme also envisages creation of infrastructure for Post Harvest Management (PHM), Good Agricultural Prices (GAP), Centre for Excellence for horticulture and marketing for holistic growth of horticulture sector. The Mission subsumes the earlier missions like National Horticulture Mission (NHM), Horticulture Mission for North East & Himalayan States (HMNEH), National Bamboo Mission (NBM), National Horticulture Board (NHB) and Coconut Development Board (CDB).

### **Benefits of the Scheme:**

- With the scheme, the overall share of horticulture in the agriculture sector's gross domestic product has grown to over 30 per cent, even though it accounts for nearly 17 per cent of the farm land.
- The country is, in fact, the leader in several horticultural crops including mango, banana, papaya, cashewnut, areca nut etc.
- Also, better incomes, urbanization and a change in consumption pattern in favour of fruits and vegetables have been witnessed.
- The small and marginal farmers have taken a lead in taking horticulture and also that a considerable chunk of land that has been brought under horticultural crops is irrigated.
- NHM helped in increasing the employment opportunities for the farmers. Majority of the households indicated that their income has increased after shifting to horticultural crops.
- Financial assistance through NHM as well as subsidy provision in terms of direct payment has been an important factor in increasing farmer's income.

### **Suggestive Measures:**

- Provision of quality planting material to the growers will help in raising the yields. More produce will come with more income for farmers and farmers will be motivated to grow more of these crops ultimately reducing the pressure from the cereal crops.
- Expansion of fruits and vegetables processing industry with backward linkages with farmers can help in value addition and waste reduction of the horticultural produce thus, ensuring higher returns to the growers.
- The Central Government has also recently created a price stabilization fund. This fund can go a long way in preventing wide price fluctuations.
- Insurance and price support are also vital factors.

Thus, horticulture sector has all the potential to help in poverty alleviation, nutritional security and have ample scope for farmers to increase their income and helpful in sustaining large number of agro based industries which generate large number of employment opportunities besides helping to achieve the national goal of 4.0 per cent agricultural growth.

**14. How has the emphasis on certain crops brought about changes in cropping patterns in recent past? Elaborate the emphasis on millets production and consumption.**

### **Approach**

- 1. Briefly introduce the interrelation between MSP and market distortion (40 words)**
- 2. Elaborate on dominance of wheat and rice (40 words)**
- 3. Discuss the importance of millets for India (100 words)**
- 4 Strategy to bring balance (80 words)**

### **Hints:**

The concept of minimum support price (MSP) has distorted the market. While MSP is effective for rice and wheat, where there is physical procurement by the Food Corporation of India, it is only indicative for other crops. Increasing the MSP more to suit the interests of farmers rather than linking it with market dynamics has distorted the pricing system.

As a result, the production of wheat and rice grew between 2005-2015 at the cost of reduction in area under cultivation of soyabean, millets, pulses and oilseeds. It is only recently that pulses production has also picked up. While this is not good for agricultural diversity, it is bad for environment too.

### **Millets:**

Millets are coarse grains like Ragi, Bajra and Jowar. They are highly nutritious and are generally used by rural people.

### **Importance:**

Most of the millets are highly nutritious, non-glutinous, non-acid forming and easily digestible foods. Being gluten free, individuals suffering from celiac disease can easily incorporate various millets in their diets. Millet ingestion helps in a slower release of glucose over a longer period of time; thus, due to low glycaemic index (GI), their habitual intake reduces the risk of diabetes mellitus.

Further, millets are rich sources of minerals like iron, calcium, zinc, magnesium, phosphorous and potassium. Ragi (Finger millet) is very rich in calcium; and bajra in iron. These also contain appreciable amounts of dietary fibre and various vitamins (b- Carotene, niacin, vitamin B6 and folic acid); high amounts of lecithin are useful for strengthening the nervous system. Therefore, a regular consumption can help to overcome malnutrition among majority of our Indian population. These have often been called the coarse grains.

Millets can not only grow under harsh circumstances, these drought resistant crops requiring fewer external inputs are termed as the 'miracle grains' or 'crops of the future'. Cultivated as dual-purpose crops (food & fodder), millets contribute to the economic efficiency of farming and provide food/livelihood security to millions of households, particularly the small/marginal farmers and the inhabitants of rain fed/remote tribal regions.

### **Millets production revival:**

Efforts are being made to promote cultivation of millets to achieve nutritional security because acreage has declined to 14.72 million hectares in 2016-17 crop year from 36.90 million hectares in 1965-66. Millet cultivation has declined due to change in consumption pattern, dietary habits, unavailability of millets, low yield, less demand and conversion of irrigated area for growing rice and wheat.

The Government has also decided to declare 2018 as "National Year of Millets". In case of an emergency, the cultivation of millets is very suitable for small and marginal farmers. In order to promote millets, their prescribed purchases in MSP and inclusion in Mid-day Meal are being done.

On the basis of the recommendations of NITI Ayog, it has been decided to create a sub mission on Nutri cereals instead of the existing NFSM-Coarse Cereals. National Food Security Mission (NFSM) -Coarse Cereals are divided into two components: NFSM (Makka and Jau) and Sub Mission on Nutri-Cereals covering Jowar, Bajra, Ragi and little millets like Kutki, Kodo, Sawa, Kangni and Cheena.

The Millet Mission, under the National Food Security Mission, is expected to be rolled out in 2019, for the next few years. While States such as Andhra Pradesh, Karnataka, and Tamil Nadu have already taken steps to promote millets, Odisha announced a 100-crore mission in 2018.

15. *Why is there so much activity in the field of biotechnology in our country? How has this activity benefitted the field of biopharma?*

### **Approach**

1. *Briefly introduce with importance of biotechnology vis-à-vis India. (20 words)*
2. *Explain why and what activities have taken place in the field in our country. (90-100 words)*
3. *Illustrate with examples the benefits accrued to Biopharma sector by initiatives of government and private sector. (80-90 words)*
4. *Conclude with major issues and future potential for Biopharma sector in India. (50 words)*

### **Hints:**

India has long since committed to utilizing modern biotechnology for its economic development and is only one of the few countries with a dedicated government department of biotechnology (DBT). This proactive approach is largely due to immense applications and advantages biotechnology can and is offering in the context of India:

- The development of high yield variety seeds, disease resistant crops, tissue culture, etc. have led to lesser crop failures and enhanced productivities in agriculture and horticulture.
- Other agricultural products like biofertilisers and biopesticides have contributed to productivity sans the degradation of soil and water bodies.
- Stem cells, gene therapy, etc. can be used to treat a variety of illnesses like cancer.
- Environment friendly products like biofuels, biodegradable plastics, green remediation techniques for wastewater, etc. can enhance the goals of sustainable development. Besides, biotechnological studies are now essential for studies on biotic diversity and its conservation.
- Applications in Industrial Biotechnology focus on producing and processing materials, bioenergy, chemicals and also pharmaceuticals products.
- Various inter-disciplinary fields like bioinformatics and nanobiotechnology hold immense promise for the future.

In a nutshell, the implications of biotechnology for India in terms of freedom from disease and hunger, economic development, etc. in a largely sustainable manner is immense and the idea has not been lost on both the government and the private sector. This has led to immense activity in this field like:

- Introduction of courses and research departments in Biotechnology in universities.
- Immense R&D and infrastructure investment by government and industrial sector
- In fields like food and nutritional sciences, the DBT is fostering research and is developing novel products and processes, which can be utilised by the industry.
- The DBT has initiated a process of constant dialogue with the international scientific communities regarding new ideas and concepts in all areas of biotechnology and life sciences.
- The DBT now also provides grants and loans to Indian companies to cover international patent and other R&D costs, and has set up biotech industrial parks with special economic zone privileges.

The biopharma sector produces medical drugs using biotechnology which are more affordable and address hitherto neglected areas. The overall thrust in Biotechnology has also percolated to this sector:

- The DBT has come up with a program to bring together industry and academia to promote entrepreneurship and indigenous manufacturing in bio-pharmaceutical sector.
- Indian biopharmaceutical R&D is increasing rapidly.
- Indian companies manufacture an increasingly wide range of biopharmaceutical products.
- India is now a leader in vaccine development and manufacturing.
- There is a huge demand of India biopharma products outside and consequently this has given fillip to exports and growth of the industry.

However, despite the huge strides made in the field, the biopharma sector suffers from lack of manpower for quality R&D, weak intellectual property laws, etc. which need to be addressed by both the government and the private sector.

The world market for biopharmaceutical drugs is approaching \$200 billion, and many first-generation products have lost or will soon lose their patent protection. India intends to take advantage of the opportunity. It should aim at nothing less than a world-class, end-to-end biopharmaceutical capability in the next decade.



16. *With growing energy needs should India keep on expanding its nuclear energy programme? Discuss the facts and fears associated with nuclear energy.*

### **Approach**

1. **Introduce by highlighting the conflict between energy needs and the need to enhance clean energy capacity (20 words).**
2. **Elaborate on the need, current usage and future potential of nuclear energy (100 words).**
3. **Highlight the various fears associated with nuclear energy (80 words).**
4. **Conclude with a balanced view of need for growth in nuclear energy but with precautionary measures (50 words).**

### **Hints:**

India's growing energy needs in face of a burgeoning economy and commitment to scale up its clean energy capacity call upon it to do a balancing act between the two.

As of now, fossil fuels contribute to about 75% of our energy needs and at the same time add to pollution woes and also heavily rely on imports. Consequently, the energy policy of India envisages developing alternative sources of energy, particularly solar, wind and nuclear. Of these, nuclear energy has been contributing only a little over 1% of total energy needs and has huge potential to be developed. The advantages associated with it are:

- It is a relatively clean source of energy and reduces our dependency on polluting and imports dependent fossil fuels.
- Unlike solar and wind energy, it does not depend upon the vagaries of nature.
- Less uranium is needed to produce the same amount of energy as coal or oil, which lowers the cost of producing the same amount of energy. Uranium is also less expensive to procure and transport, which further lowers the cost.
- Unlike the large areas required for solar, wind, and biomass energy, the building of a nuclear power plant requires much lesser area.
- The Indo-USA nuclear deal and India's waiver from the Nuclear Suppliers' Group and its agreement with the global atomic body, IAEA, have created an enabling environment to develop the necessary infrastructure for augmenting our nuclear energy capacity.

However, many reservations and fears have been raised about relying too much on nuclear energy as well:

- The primary concern stems from the possibility of nuclear accident which can have far reaching consequences. However, very few such accidents have been reported worldwide and none in India.
- Difficulty in the management of nuclear waste. It takes many years to eliminate its radioactivity and risks.
- Nuclear plants have a limited life. The investment for the construction of a nuclear plant is very high and must be recovered as soon as possible, so it raises the cost of electricity generated.
- Nuclear power plants generate external dependence.

There can be no gain without some pain to fulfill our energy needs along with our commitment to clean energy. The right step forward in the nuclear component of our energy policy should be to go full throttle on developing our nuclear capacity using indigenous technology and the recent opening of help from the nuclear world order but at the same time address the associated fears by putting in place a very strict regulatory framework and world class management practices.

17. *How does biodiversity vary in India? How is the Biological Diversity Act, 2002 helpful in conservation of flora and fauna?*

### **Approach**

1. **Introduce with brief overview of India's biodiversity. (30 words)**
2. **Give an account of biodiversity in India. (60-70 words)**

3. **Discuss about how Biological Diversity Act, 2002 is helpful in conservation of flora and fauna in India. (50 words)**

4. **Conclusion (20 words)**

**Hints:**

- India is one of the recognized mega-diverse countries of the world, rich in biodiversity and associated traditional knowledge. With just 2.4% of the land area, India accounts for nearly 7% of the recorded species even while supporting almost 18% of human population.
- In terms of species richness, India ranks seventh in mammals, ninth in birds and fifth in reptiles. In terms of endemism of vertebrate groups, India's position is tenth in birds with 69 species, fifth in reptiles with 156 species and seventh in amphibians with 110 species.
- India's share of crops is 44% as compared to the world average of 11% to space.
- Of the 34 globally identified biodiversity hotspots, India harbours two hotspots, i.e., Eastern Himalayas, Western Ghats and Sri Lanka
- The varied Edaphic, Climatic and Topographic conditions have resulted in a wide range of ecosystems and habitats such as forests, grasslands, wetlands, coastal and marine ecosystems, and deserts in India with greater biodiversity.

There are **10 bio-geographic zones** which are distinguished clearly in India. They are as follows:

1. **Trans-Himalayas:** An extension of the Tibetan plateau, harbouring high-altitude cold desert in Laddakh (J&K) and LahaulSpiti (H.P) comprising 5.7% of the country's landmass.
2. **Himalayas:** The entire mountain chain running from north-western to north-eastern India, comprising a diverse range of biotic provinces and biomes, 7.2% of the country's landmass.
3. **Desert:** The extremely arid area west of the Aravalli hill range, comprising both the salty desert of Gujarat and the sand desert of Rajasthan. 6.9% of the country's landmass.
4. **Semi-arid:** The zone between the desert and the Deccan plateau, including the Aravalli hill range. 15.6% of the country's landmass.
5. **Western ghats:** The hill ranges and plains running along the western coastline, south of the Tapti river, covering an extremely diverse range of biotic provinces and biomes. 5.8% of the country's landmass.
6. **Deccan peninsula:** The largest of the zones, covering much of the southern and south central plateau with predominantly deciduous vegetation. 4.3% of the country's landmass.
7. **Gangetic plain:** Defined by the Ganges river system, these plains are relatively homogenous. 11% of the country's landmass.
8. **North-east India:** The plains and non-Himalayan hill ranges of north-eastern India, with a wide variation of vegetation. 5.2% of the country's landmass.
9. **Islands:** The Andaman and Nicobar Islands in the Bay of Bengal, with a highly diverse set of biomes. 0.03% of the country's landmass.
10. **Coasts:** A large coastline distributed both to the west and east, with distinct differences between the two; Lakshadweep islands are included in this with the percent area being negligible.

**Biological Diversity Act, 2002**

- The Biological Diversity Act 2002 was born out of India's attempt to realize the objectives enshrined in the United Nations Convention on Biological Diversity (CBD) 1992 which recognizes the sovereign rights of states to use their own Biological Resources.
- The act provide for conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological/genetic resources, knowledge and for matters connected therewith or incidental thereto.
- The Act envisages a three-tier structure to regulate access to the biological resources, comprising of National Biodiversity Authority (NBA), State Biodiversity Boards (SBB) and Biodiversity Management Committees (BMC) at the local level.

18. Describe various measures taken in India for Disaster Risk Reduction (DRR) before and after signing 'Sendai Framework for DRR (2015-2030)'. How is this framework different from 'Hyogo Framework for Action, 2005'?

### Approach

1. Briefly introduce the disaster situation in India. (50 words)
2. Discuss Measures taken in India for DRR before and after signing Sendai Framework for DRR. (100 words)
3. Difference between 'Hyogo Framework for Action and 'Sendai Framework for DRR' (100 words)

#### Hints:

India has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Floods, droughts, cyclones, earthquakes and landslides have been a recurrent phenomenon in the country.

#### Measures taken in India for DRR before signing Sendai Framework

- Before signing the Sendai Framework for DRR, the disaster risk reduction strategy in India was based upon the National Disaster Management Act, 2005 which aims to make India disaster resilient and significantly reduce the loss of lives and assets.
- The plan also aims at maximizing the ability to cope with disasters at all levels of administration as well as among communities.
- India's 2005 Disaster Management Act laid down institutional, legal, financial and coordination mechanisms at the National, State, District and Local levels and ushered in a paradigm shift from a "relief-centric" approach to a more proactive regime that lays greater emphasis on preparedness, prevention and mitigation.

#### Measures taken in India for DRR after signing Sendai Framework

- India recently released first ever National Disaster Management Plan, a document based on the global blueprint for reducing disaster losses, the Sendai Framework for Disaster Risk Reduction.
- The plan is based on the four priority themes of the Sendai Framework, namely: understanding disaster risk, improving disaster risk governance, investing in disaster risk reduction (through structural and non-structural measures) and disaster preparedness, early warning and building back better in the aftermath of a disaster.
- The plan has a regional approach, which will be beneficial not only for disaster management but also for development planning.
- It is designed in such a way that it can be implemented in a scalable manner in all phases of disaster management.
- It also identifies major activities such as early warning, information dissemination, medical care, fuel, transportation, search and rescue, evacuation, etc. to serve as a checklist for agencies responding to a disaster.

#### Difference between 'Hyogo Framework for Action and 'Sendai Framework for DRR'

- The Disaster Risk Reduction (DRR) framework formulated in 2004 was the basis for the conceptualisation of the **Hyogo Framework for Action 2005-2015** agreed at the second UN World Conference on Disaster Risk Reduction held in Kobe in January 2005.
- The Hyogo Framework sets five priorities for action, the first two being: governance and risk identification.
- Considering lessons learned in applying the Hyogo Framework for Action, new and emerging risks, UN Member States adopted in March 2015, the **Sendai Framework for Disaster Risk Reduction 2015-2030**.
- The Sendai Framework sets four priorities for action to be implemented at national & local levels and at global & regional levels, i.e.
  - Understanding disaster risk.

- Strengthening disaster risk governance to manage disaster risk.
- Investing in disaster risk reduction for resilience.
- Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.

19. *Data security has assumed significant importance in the digitized world due to rising cyber-crimes. The Justice B. N. Srikrishna Committee Report addresses issues related to data security. What, in your view, are the strengths and weaknesses of the Report relating to protection of personal data in cyber space?*

### Approach

1. **Brief introduction substantiating the given statement. (50 words)**
2. **Strengths of the reports. (120 words)**
3. **Weaknesses of the report. (80 words)**

#### Hints:

Recently Justice B.N. Srikrishna Committee submitted its report on data protection along with draft data protection bill. With progress in the field of digital world the privacy, safety and security of data is one of the major concerns. This committee was formed to look into the matter protection of data and providing a framework for regulation of data.

#### Strengths:

- **Rights of the individual:** The Bill sets out certain rights of the individual. These include: (i) right to obtain confirmation from the fiduciary on whether its personal data has been processed, (ii) right to seek correction of inaccurate, incomplete, or out-of-date personal data, and (iii) right to have personal data transferred to any other data fiduciary in certain circumstances.
- **Obligations of the data fiduciary:** The Bill sets out obligations of the entity who has access to the personal data (data fiduciary).
- **Data Protection Authority:** The Bill provides for the establishment of a Data Protection Authority. The Authority is empowered to: (i) take steps to protect interests of individuals, (ii) prevent misuse of personal data, and (iii) ensure compliance with the Bill.
- **Grounds for processing personal data and sensitive personal data:** The Bill allows processing of data by fiduciaries if consent is provided. However, in certain circumstances, processing of data may be permitted without consent of the individual like in case of any function of Parliament or state legislature for providing benefits to the individual, for the compliance of any court judgement, to respond to a medical emergency etc.
- Sensitive personal data includes passwords, financial data, biometric data, genetic data, caste, religious or political beliefs, or any other category of data specified by the Authority.
- **Transfer of data outside India:** Personal data (except sensitive personal data) may be transferred outside India under certain conditions. These include: (i) where the central government has prescribed that transfers to a particular country are permissible, or (ii) where the Authority approves the transfer in a situation of necessity.
- **Exemptions:** The Bill provides exemptions from compliance with its provisions, for certain reasons including: (i) state security, (ii) prevention, investigation, or prosecution of any offence, or (iii) personal, domestic, or journalistic purposes.
- **Offences and Penalties:** Under the Bill, the Authority may levy penalties for various offences by the fiduciary including (i) failure to perform its duties, (ii) data processing in violation of the Bill, and (iii) failure to comply with directions issued by the Authority.
- **Amendments to other laws:** The Bill makes consequential amendments to the Information Technology Act, 2000. It also amends the Right to Information Act, 2005, and to permit non-disclosure of personal information where harm to the individual outweighs public good.

## Weaknesses:

- **Heavy penalties:** It recommends heavy penalties for private sector's breach of data privacy laws but adopts a lenient stand regarding the state's infractions.
  - **Large number of amendments:** Amendment in existing 50 laws/ regulation would be a tough task for Government.
  - **Dilution of laws:** Amendment in RTI and Aadhar act may dilute the existing laws.
  - **Impact on enforcement mechanisms:** Critics says inclusion of provision of bill treating violations as criminal offences along with fine and compensation is excessive and would impact the enforcement mechanism greatly.
  - **Additional cost on companies:** The storage of one copy of personal data in India will impose additional cost to companies.
  - **Classification of sensitive data:** Under the bill all financial data has been classified as sensitive personal data which may be detrimental to Financial institutions.
  - **Restrictions on data flow:** Restriction on cross border flow of data may prove detrimental in era of digital global economy.
20. *India's proximity to two of the world's biggest illicit opium-growing states has enhanced her internal security concerns. Explain the linkages between drug trafficking and other illicit activities such as gunrunning, money laundering and human trafficking. What countermeasures should be taken to prevent the same?*

## Approach

1. *Explain the given statement. (50 words)*
2. *Draw the linkage between drug trafficking and other illicit activities. (120 words)*
3. *Give countermeasures to prevent this. (80 words)*

## Hints:

India is wedged between the world's two largest areas of illicit opium production, **the Golden Crescent and the Golden Triangle**. This proximity has traditionally been viewed as a source of vulnerability, since it has made India both a destination and a transit route for opiates produced in these regions.

This proximity has also enhanced India's concern of internal security as once the route for trafficking drugs are created they also act as the route for gunrunning, money laundering and human trafficking.

These drug traffickers form **cartels** and enter into **organized crime** once they get familiar with the ways to bypass the authorities and security to traffic whatever gives them profit.

## India has 3 main routes for trafficking:

1. **Eastern border:** India has **porous border** with many neighbouring countries in the east like Nepal, Bangladesh and Myanmar. These countries are major illicit opium growing states or are part of the route to traffic them into India. We have seen large number of human trafficking from these states and also the gunrunning in the North-Eastern states to aid the naxalites and tribal people.
2. **Western Border:** Due to **tough terrain and lack of proper fencing**, border with Pakistan also acts as a route for trafficking of drugs, humans (mostly terrorists), guns and money to aid infiltrations and secessionists in Kashmir and other parts of India.
3. **Sea Route:** India has a vast coast and tough to secure moreover these route and traffickers create **corruption** and make the sea ports vulnerable for trafficking. Nexus between drug traffickers and custom officers on the ports help these organized criminals to let other things pass too. Even terrorist have used sea route as we have seen in 26/11 Mumbai case.

Money laundering also takes place with the help of these routes and **Hawala transactions** to pay for the trafficked items i.e. drugs, guns or humans. Sometime drug trafficking and other illicit activities act as barter system to pay for one with the other.

**Countermeasures that can be taken are:**

- Coordination among various agencies needs to be improved.
- Information/intelligence gathering regarding trafficking, its analysis and dissemination capabilities need to be strengthened.
- The issue of corruption among the border guarding forces as well as in other concerned agencies has to be dealt with in a pragmatic manner.
- Various domestic laws enacted for the control of trafficking should be implemented stringently and severe punishments should be accorded to drug stockists.
- Agencies such as the SDOMD should be reinvigorated. Capacity building of personnel involved in prevention of trafficking in India and its neighbouring areas should be enhanced.
- Above all greater cooperation with neighbours on matters of trafficking need to be forged.
- Borders need to be sealed properly as the issue has been raised time and again.



GS SCORE