

**GEOGRAPHY****Deficient monsoon and economy**

Rainfall during the June-September season accounts for about 70% of India's annual rainfall and is key for the country's economy. The delayed onset of the southwest monsoon, followed by its slow progress, will aggravate the agrarian distress in India.

What does the forecast say?

- The southwest monsoon has started advancing to more parts of eastern India. The advance is slow and the strong winds that typically accompany the monsoon current are missing.
- Skymet expects rainfall will be below normal for the third year in a row, with rains seen at 93% of the long-period average.
- While IMD has forecast a better monsoon with rainfall seen at 96% of the long-period average.

Why is it a concern for the summer crops?

- Planting of kharif crops has come down by 9% from the year-ago.
- The difference can be largely attributed to the slow progress of the southwest monsoon in key regions.
- Rainfall has been 43% below normal. Most kharif crops, largely grown in non-irrigated regions, depend heavily on the monsoon.
- Planting of Paddy, the key kharif crop, has come down from a year ago.
- The trends are concerning because most crops have a limited sowing window.

How will it affect the economy?

Prices:

- A fall in crop output does not necessarily mean a rise in prices of essential commodities.
- Prices of farm commodities have declined over the past two years, largely because of successive bumper harvests.
- But rising prices of vegetables resulted in rising of retail inflation.

Growth:

- The share of agriculture in India's GDP has been falling, but the rural economy's buying power is more crucial for Industries.
- Good output increases the economic activity and the demand for various equipment, especially the Automobiles.
- Weak monsoon will reduce the agricultural growth and also the demand for other allied and dependent industries like FMCG, Fertilisers, Automobiles etc.
- This impact could also trickle down to the services sector.

Which are the measures taken by States?

- Telangana government has asked farmers to defer kharif sowing.
- Governments in Punjab and Haryana are giving financial aid to farmers for looking at alternatives to paddy sowing.

**INTERNATIONAL AFFAIRS- BILATERAL, GROUPINGS, ORGANISATIONS****International Civil Aviation Organization (ICAO)**

Senior bureaucrat Shefali Juneja was appointed as representative of India in council of International Civil Aviation Organisation (ICAO), Montreal, Canada.

About ICAO:

- The International Civil Aviation Organization (ICAO) is a UN specialized agency, established by States in 1944 to manage the administration and governance of the Convention on International Civil Aviation (Chicago Convention).
- ICAO works with the Convention's 193 Member States and industry groups to reach consensus on international civil aviation Standards and Recommended Practices (SARPs) and policies in support of a safe, efficient, secure, economically sustainable and environmentally responsible civil aviation sector.
- These SARPs and policies are used by ICAO Member States to ensure that their local civil aviation operations and regulations conform to global norms, which in turn permits more than 100,000 daily flights in aviation's global network to operate safely and reliably in every region of the world.

- ICAO also coordinates assistance and capacity building for States in support of numerous aviation development objectives; produces global plans to coordinate multilateral strategic progress for safety and air navigation; monitors and reports on numerous air transport sector performance metrics; and audits States' civil aviation oversight capabilities in the areas of safety and security.

#### Chicago convention:

- Convention on International Civil Aviation (also known as Chicago Convention), was signed on 7 December 1944 by 52 States.
- Pending ratification of the Convention by 26 States, the Provisional International Civil Aviation Organization (PICAO) was established.
- It functioned from 6 June 1945 until 4 April 1947. By 5 March 1947 the 26th ratification was received. ICAO came into being on 4 April 1947. In October of the same year, ICAO became a specialized agency of the United Nations linked to Economic and Social Council (ECOSOC).
- The Convention establishes rules of airspace, aircraft registration and safety, and details the rights of the signatories in relation to air travel. The Convention also exempts air fuels in transit from (double) taxation.

#### E-2020 initiative

Four countries from Asia — China, Iran, Malaysia and Timor-Leste — and one from Central America — El Salvador — reported no indigenous cases of malaria in 2018, according to the World Health Organization (WHO). The countries were part of the global health body's E-2020 initiative, launched in 2016, working in 21 countries, spanning five regions, to scale up efforts to achieve malaria elimination by 2020.

#### What is the E-2020 initiative?

- In May 2015, the World Health Assembly endorsed a new Global Technical Strategy for Malaria 2016-2030, setting ambitious goals aimed at dramatically lowering the global malaria burden over this 15-year period, with milestones along the way to track progress. A key milestone for 2020 is the elimination of malaria in at least 10 countries that had the disease in 2015. To meet this target, countries must report zero indigenous cases in 2020.
- According to a WHO analysis published in 2016, 21 countries have the potential to eliminate malaria by 2020. They were selected based on an analysis that looked at the likelihood of elimination across 3 key criteria:
  - trends in malaria case incidence between 2000 and 2014;
  - declared malaria objectives of affected countries; and
  - informed opinions of WHO experts in the field.
- Together, these 21 malaria-eliminating countries are part of a concerted effort known as the E-2020 initiative, supported by WHO and other partners, to eliminate malaria in an ambitious but technically feasible time frame.

#### Malaria and concerns for India:

- Contracted through the bite of an infected mosquito, malaria remains one of the world's leading killers. It accounted for an estimated 219 million cases from 87 countries and over 400,000 related deaths in 2017.
- Over 60 per cent of fatalities were among children under five years, and caused 266,000 of all malaria deaths worldwide.
- India (4 per cent) was among the five countries, the others being — Nigeria (25 per cent), Democratic Republic of the Congo (11 per cent), Mozambique (5 per cent), and Uganda (4 per cent) — that accounted for nearly 50 per cent of all malaria cases worldwide.
- The country was also among the 11 countries — 10 in Africa (Burkina Faso, Cameroon, Democratic Republic of the Congo, Ghana, Mali, Mozambique, Niger, Nigeria, Uganda and United Republic of Tanzania) — that reported approximately 70 per cent of all malaria cases (151 million) and deaths (274,000).
- Among these countries, only India reported progress in reducing its malaria cases in 2017 (24 per cent reduction in cases) compared to 2016, according to the report.

**INDIAN ECONOMY****National Anti-Profiteering Authority (NAA)**

The tenure of National Anti-Profiteering Authority has been extended by 2 years.

**About NAA:**

- The National Anti-Profiteering Authority (NAA) has been constituted under Section 171 of the Central Goods and Services Tax Act, 2017.
- It is to ensure the reduction in rate of tax or the benefit of input tax credit is passed on to the recipient by way of commensurate reduction in prices.
- The Authority's core function is to ensure that the benefits of the reduction is GST rates on goods and services made by GST Council and proportional change in the Input tax credit passed on to the ultimate consumers and recipient respectively by way of reduction in the prices by the suppliers.

**Composition:** The National Anti-profiteering Authority shall be headed by a senior officer of the level of a Secretary to the Government of India and shall have four technical members from the Centre and/or the States.

**Powers and functions of the authority:**

- In the event the National Anti-profiteering Authority confirms the necessity of applying anti-profiteering measures, it has the power to order the business concerned to reduce its prices or return the undue benefit availed along with interest to the recipient of the goods or services.
- If the undue benefit cannot be passed on to the recipient, it can be ordered to be deposited in the Consumer Welfare Fund.
- In extreme cases the National Anti-profiteering Authority can impose a penalty on the defaulting business entity and even order the cancellation of its registration under GST.

**ISSUES RELATED TO INTERNAL SECURITY AND DISASTER MANAGEMENT****Issues in Indian Police**

According to a 2018 survey Centre for the Study of Developing Societies (CSDS) found that less than 25% of Indians trust the police with 30% of all cases filed in 2016 pending for investigation by the end of the year.

**Reasons for poor performance:****Understaffed:**

- As in the case of the judiciary, pendency in the police is driven by a lack of resources.
- In 2017 there was a vacancy rate of 30% .
- India's police-to-population ratio lags behind most countries and the United Nations-recommended ratio of 222 with only 144 police officers for every 100,000 citizens.

**State Subject:**

- Policing in India is a state subject which means there is significant variation across states.
- Uttar Pradesh, Bihar, Andhra Pradesh and West Bengal's police forces are all extremely understaffed with less than 100 police staff for 100,000 population.
- Only the insurgency-affected states in the North-East and Punjab meet the global standards.
- Even filling the vacant police posts (police-to-population ratio will increase to 185) may not be enough to bring India's police force up to speed with global standards.

**Depleted Budgets:**

- Decreased spending on police is adding to the resource crunch.
- According to PRS Legislative Research, states spending policing has dropped from 4.4% to 4% of the budget over the last four years.
- An under-resourced, overburdened police force affects both daily law and order enforcement and long-term criminal investigations.

**Lack of Administrative Autonomy:**

- Accountability within the police remains an issue with unwanted interference by the political executives.
- Low police salaries also deepen the nexus between criminals, politicians, and the police.
- The Second Administrative Reforms Commission in 2007 had noted that politicians were unduly influencing police personnel to serve personal or political interests.

- Limiting the political executive's control over the police is a much-needed reform as proposed by various committees.

Proposals:

- National Police Commission (NPC) between 1977-81 produced 8 reports suggesting major reforms across a range of police issues.
- Ribeiro Committee (1998) was made to review the lack of action taken to implement NPC recommendations and to re-frame a new police act.
- Padmanabhaiah Committee (2000) dealt with the issues of politicization and criminalization of the police and police accountability.
- Malimath Committee (2003) suggested changes to the Indian Penal Code and outlined ways of improving judicial proceedings
- Supreme Court Directives (2006) issued seven directives to state police forces including setting up State Security Commissions, Police Establishment Boards and a Police Complaints Authority.
- However, the implementation of these reforms is poor mainly due to the lack of political will, which in turn could be linked to the growing criminalization of politics.

Thus, reforming Indian Police is holistic and involves cleaning up the political system as well.

## **SCIENCE AND TECHNOLOGY- EVERYDAY SCIENCE, SPACE, NUCLEAR, DEFENCE ETC**

### **Superconductivity**

IISc researchers have reported superconductivity at room temperature. Their finding, now under review, will be a breakthrough if verified.

Background:

- Superconductivity is a phenomenon that, so far, has been possible only at extremely low temperatures, in the range of 100°C below zero. The search for a material that exhibits superconductivity at room temperature, or at least manageable low temperatures, has been going on for decades, without success. If the claimed discovery were confirmed, it could be one of the biggest breakthroughs in physics in this century so far.

What is superconductivity?

- It is a state in which a material shows absolutely zero electrical resistance. While resistance is a property that restricts the flow of electricity, superconductivity allows unhindered flow.
- In a superconducting state, the material offers no resistance at all. All the electrons align themselves in a particular direction, and move without any obstruction in a "coherent" manner.
- Because of zero resistance, superconducting materials can save huge amounts of energy, and be used to make highly efficient electrical appliances.

Two fundamental properties of a superconductor:

- Zero resistance to electrical current.
- Diamagnetism

Diamagnetism is a property opposite to normal magnetism that we are used to. A diamagnetic substance repels an external magnetic field, in sharp contrast to normal magnetism, or ferromagnetism, under which a substance is attracted by an external magnetic field.

How rare is this?

- The problem is that superconductivity, ever since it was first discovered in 1911, has only been observed at very low temperatures, somewhere close to what is called absolute zero (0°K or -273.15°C). In recent years, scientists have been able to find superconductive materials at temperatures that are higher than absolute zero but, in most cases, these temperatures are still below -100°C and the pressures required are extreme. Creating such extreme conditions of temperature and pressure is a difficult task.

Therefore, the applications of superconducting materials have remained limited as of now

### **QUOTE OF THE DAY**

**Things work out best for those who make the best of how things work out.**

## DAILY ANSWER WRITING PRACTICE

**Qns: Examine the issues related to policing in India? Suggest measures for its betterment.**

**Ans:** The policing system has been designed as the primary enforcement agency that looks after the maintenance of Law and order in the country. Under the Indian Constitution, policing is a state power, which means that state governments have the responsibility to provide their communities with a police service (the national government has the responsibility for policing in union territories). Most of the state governments have a police law that adopts or reflects the basic ideas of the 1861 legislation.

### Issues Concerning Police Forces

- **Operational Freedom:** The Indian Police Act provides for the political superintendence of police force. This provision has been widely misused by political leaders both in the state as well as centre and has become a bottleneck in effective policing in the country. The Second Administrative commission has highlighted this issue of operational freedom in policing and commented how this has led to a biased performance of duties.
- **An overburdened force:** Currently, there are significant vacancies within the State police forces and some of the Central armed police forces. A high percentage of vacancies within the police forces exacerbates an existing problem of overburdened police personnel. Most of the police personnel have to undergo a 12-hour duty on a daily basis without week off.
- **Constabulary related issues:** The constabulary constitutes 86% of the State police forces and has wide-ranging responsibilities. The Padmanabhaiah Committee and the Second Administrative Reforms Commission have noted that the entry-level qualifications and training of constables do not qualify them for their role. The Second Administrative Reforms Commission has further noted that the promotional opportunities and working conditions of constables are poor, and need to be improved. Importance of providing housing to the constabulary (and generally to the police force) to improve their efficiency and incentive to accept remote postings has also been emphasised by expert bodies, such as the National Police Commission
- **Police infrastructure:** Modern policing requires a strong communication support, state-of-the-art or modern weapons, well-trained staff, Efficient Utilisation of funds and a high degree of mobility. The CAG and the BPRD have noted shortcomings on several of these fronts.
- **Police-Public relations:** The police - public relation in India lies under the shadow of distrust. People view police as corrupt, inefficient, politically partisan and unresponsive. This state of police - public relation needs an overhaul which is essential for an effective policing in the country.
- **Crime Investigations:** Crime investigation requires skills, training, time, resources, and adequate forensic capabilities. However, the Law Commission and the Second Administrative Reforms Commission have noted that state police officers often neglect this responsibility because they are understaffed and overburdened with various kinds of tasks.

### Steps that need to be taken

- **Specialized investigation unit:** To improve the quality of investigation, every state should have a specialized investigation unit within the police force which must not be diverted for any other purposes. **Community policing:** To improve police - public relation, community policing can be an important step. In community policing, police work with the local people in the community for prevention and detection of crimes, maintenance of public order and resolution of local conflict. Various states have been experimenting with community policing including Kerala through Janamaithri Suraksha Project , Rajasthan through Joint Patrolling Committees , etc.
- **Improving police -people ratio:** The police - people ratio need to be improved particularly in metro cities and state capitals where police personnel is overburdened. One way could be to increase the number of personnel in these cities by levying an extra security tax which can be used to provide quality policing in the city and better life to police personals.
- **An Independent Complaint authority:** To instil faith among citizen and to overcome police misconduct, an independent complaint authority is the demand of the time.
- **Modernization of policing Infrastructure:** Policing infrastructure in India is archaic in most of the towns in India. The system needs continuous budgetary support to overhaul the policing infrastructure in the country. A modern patrolling system, modern equipment, communication system, forensic labs are the need of the hour.

**DAILY CURRENT AFFAIRS BASED MCQS**

1. Which of the following statements is/are identified as the prominent characteristics of Monsoonal Rainfall in India.
  1. Rainfall is seasonal in character.
  2. Monsoonal Rainfall is largely governed by relief or topography.
  3. It has a declining trend with increasing distance from the sea.
  4. The monsoon rains occur in wet spells of few days duration at a time.Select the correct answer from the codes given below:
  - (a) 1 and 2
  - (b) 2 and 3
  - (c) 1, 3 and 4
  - (d) 1, 2, 3 and 4**
2. Identify the important factors which influence the mechanism of Indian weather.
  1. The shifting in the position of ITCZ
  2. El-Nino
  3. Jet streams
  - (a) 1 and 2
  - (b) 1 and 3
  - (c) 2 and 3
  - (d) 1, 2 and 3**
3. Which of the following statement is correct about the Inter-Tropical Convergence Zone (ITCZ)?
  - (a) ITCZ shifts only between 50° to 75° of latitude north or south of the equator
  - (b) It is a zone between the northern and southern hemisphere where winds blowing poleward from the mid latitudes and winds flowing from equator-ward the tropics meet.
  - (c) It is also known as the Tropical Convergence Zone.
  - (d) It is a zone of convergence where the trade winds meet.**
4. Consider the following statements w.r. t the International Civil Aviation Organisation (ICAO).
  1. It is a specialized agency of the United Nations
  2. It is headquartered in New York.
  3. It is a result of the Chicago Convention of 1944.Which of the statements are correct?
  - (a) 1 and 2
  - (b) 1 and 3**
  - (c) 2 and 3
  - (d) 1, 2 and 3
5. WHO's E-2020 initiative is intended eradication of which of the following diseases?
  - (a) Malaria
  - (b) Ebola Outbreak
  - (c) West Nile Virus
  - (d) HIV/AIDS
6. Consider the following w.r.t to the National Anti-Profiteering Authority (NAA).
  1. It has been constituted under the Central Goods and Services Tax Act, 2017.
  2. It is to ensure the reduction in rate of tax or the benefit of input tax credit is passed on to the recipient by way of commensurate reduction in prices.
  3. It can impose a penalty on the defaulting business entity and even order the cancellation of its registration under GST.Which of the statements is/are correct?
  - (a) 1 and 2
  - (b) 1 and 3
  - (c) 2 and 3
  - (d) 1, 2 and 3**
7. Consider the following statements w.r.t Superconductivity.
  1. Conventional superconductors usually have critical temperatures ranging from less than 1k to around 10 k.
  2. Ceramic compounds containing planes of copper and oxygen atoms known as cuprates.Which of the above statements is/are correct?
  - (a) 1 only
  - (b) 2 only**
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2