

**POLITY****Context: Containing the governor****Introduction:**

We have been reminded once more by Tamil Nadu Governor R N Ravi of the constitutional absurdity of keeping the colonial institution of governor. He sent all ten bills back to the state assembly in spite of the intervention from SC.

**The governor of Tamilnadu actions that cause concern**

- Ravi has seemingly been holding up state government decisions for the prosecution of AIADMK ministers, appointments to the Tamil Nadu Public Service Commission, and the early release of inmates.
- The structure of the offices of presidents and governors differs
- Despite the fact that the governor is meant to serve as the president's equivalent at the state level, in actuality, they have been and still are agents of the Union government, tasked with maintaining oversight over duly elected state governments.
- The primary distinction between the president and the governor is how they are appointed and removed from office; while the president is chosen by the nation's elected officials, the governor is chosen exclusively by the Union administration.
- The governor may be dismissed from office whenever the Union government sees fit, but the president can only be removed by impeachment.
- The knowledge that the elected representatives have the power to remove the president from office should they overstep their bounds serves as a constant check on the president's ability to act as head of state.
- The governor, on the other hand, can rest easy knowing that their posts will remain intact as long as they follow the Union government's instructions. They are not even accountable to the courts for their acts while serving as heads of state.

**The Constituent Assembly debate on the office of governors.**

- Nothing about this is new; during the debates in the Constituent Assembly, all of this was foreseen
- Dakshayani Velayudhan expressed strong disapproval of the governor-related provisions. "The draught is generally criticized for being a carbon copy of the 1935 Act, but we must remember that we still have the parliamentary system of government, which is a remnant of the British imperialist government," she stated.
- Other Assembly members including Biswanath Das and H V Kamath shared her opinions.
- In defence of the current provisions of the Government of India Act, 1935, B R Ambedkar contended that there was limited time to modify them and that governors should only cooperate with state governments, not take over their authority.
- As other members have pointed out, he did not address the prospect that a governor might just carry out the intentions of the Centre.
- Ambedkar gave a perplexing response. Being an economist, he ought to have known that the Constitution would create unfavorable incentives for the governor's actions.
- Additionally, Velayudhan rejects his reasoning for keeping the governor-related provisions in place, pointing out that the GoI Act, 1935 underwent major revisions where necessary, but the parts relating to the governor were retained as it is.
- Almost as soon as the Constitution took effect, worries about the character of governors were confirmed.
- It is well known that Madras Governor Sri Prakasa plotted to install C Rajagopalachari as chief minister and set up a Congress government in the state in spite of the lack of popular mandate.
- Governors across have engaged in similar activities on behalf of the ruling party at the Centre.

**Should India do away with the governorship system?**

- Eliminating the establishment itself would be a hasty decision. This is needless and imprudent.

- Unwise because removing the governor completely would imply dissolving the Westminster parliamentary democracy, which calls for a head of state and head of government.
- Unnecessary since there are workable substitutes, such as constitutional amendment or judicial involvement.

**Methods for Institution Reform**

- The amount of time that judges spend reviewing governors' behaviour has recently grown. Although this is a positive step, states shouldn't have to repeatedly petition the Supreme Court in order to force their governors to carry out their duties.
- The alternative involves reshaping the governor's office in accordance with the constitution, to elect and impeach the governor and hold him or her accountable to the state legislature in the same way as the president is answerable to the Union Parliament.

**Conclusion:**

India's democracy and federal structure will be strengthened if the colonial institution of the governor is curbed, regardless of whether the judicial or constitutional reform path is chosen.

**GOVERNANCE**

**Context:** Government policies and interventions for development in various sectors, as well as issues arising from their design and implementation, are the subject of India's record-breaking patent awards in 2023–2034.

**Why in News?**

- Recently, the Indian Patent Office (IPO) has granted the highest number of 41,010 patents till November 2023.
- During the fiscal year 2013–14, 4,227 patents were awarded. An 11-year streak of growth unmatched by any other nation among the top 10 filers saw Indian patent applications increase by 31.6% in 2022, according to a World Intellectual Property Organization (WIPO) report.
- India's increase in patent awards is indicative of the nation's advancements in innovation, technology, and competitiveness. By addressing issues, presenting opportunities, and developing talent, it also has an impact on the economy, society, and young people.
- The IPO is in charge of managing and controlling patents, designs, and geographical indications in India. It is under the jurisdiction of the Ministry of Commerce and Industry's Office of Controller General of Patents, Designs, and Trademarks (CGPDTM).

**A Patent: What Is It?****About:**

- A patent is a statutory right for an invention that is granted by the government to the patent holder for a set amount of time in exchange for full disclosure of his invention and the right to prevent others from creating, utilizing, importing, or selling the patented product or process for producing it for those purposes without his permission.
- The Patents Act, 1970 as modified by the Patents (Amendment) Act, 2005 and the Patents Rules, 2003 govern the patent system in India.
- The most recent revision to the Patent Rules, in line with the evolving environment, is the Patents (Amendment) Rules, 2021.

**Duration of Patent:**

- Every granted patent has a 20-year term starting on the date the application was filed.
- The term of a patent, however, will be 20 years from the international filing date granted under the Patent Cooperation Treaty (PCT) for applications filed under the national phase of the PCT.
- By filing an international patent application, one can simultaneously seek patent protection for an invention in many different countries thanks to the Patent Cooperation Treaty (PCT), an international treaty with more than 150 Contracting States.

- Any national or resident of a PCT Contracting State may submit such an application; it should normally be submitted to the Contracting State's national patent office or, at the applicant's discretion, to the International Bureau of WIPO in Geneva.

**Standards for Patentability:**

- If an invention satisfies the following requirements, it is eligible for patent protection: it must be novel.
- It must be non-obvious or have creative steps.
- It ought to have industrial application capabilities.
- The Patents Act of 1970's sections 3 and 4 shouldn't apply to it.

**Protection of Patents:**

- Since patent protection is a territorial right, it can only be used inside India's borders. The idea of a worldwide patent does not exist.
- Nevertheless, if an application is filed in India, the applicant will have twelve months from the date of filing to file a corresponding application for the same invention under PCT or in convention countries.

**Patents Act, 1970:**

- In 1972, the main legislation governing India's patent system went into effect. The Indian Patents and Designs Act of 1911 was superseded by it.
- The Patents (Amendment) Act, 2005 amended the Act by extending the patent protection to all technological fields, including food, medicine, chemicals, and microorganisms.
- Following the amendment, a clause enabling the granting of a compulsory license was added, and the provisions pertaining to Exclusive Marketing Rights (EMRs) were removed. Additionally, pre- and post-grant opposition provisions have been introduced.

**Which treaties and conventions are relevant to intellectual property rights and patents?**

- International: India has ratified the Agreement on Trade Related Aspects of Intellectual Property (TRIPS Agreement) and is a member of the World Trade Organization.
- India is additionally a member of the World Intellectual Property Organization (WIPO), an organization tasked with advancing global intellectual property rights protection.
- Additionally, India participates in the following significant WIPO-managed International

**IPR-related treaties and conventions:**

- The Budapest Treaty pertains to the International Recognition of Microorganisms Deposited for Patent Procedure.
- Industrial Property Protection Convention of Paris
- The World Intellectual Property Organization Convention
- Literary and artistic works are protected by the Berne Convention.
- Agreement on Patent Cooperation

**National**

- The 2016 National Policy on Intellectual Property Rights (IPR):
- In order to direct the future growth of intellectual property rights (IPRs) in the nation, the National Intellectual Property Rights (IPR) Policy 2016 was approved in May of that same year.
- "Creative India; Innovative India" is its rallying cry.
- It establishes an institutional framework for execution, oversight, and evaluation.
- It seeks to apply and modify international best practices to the Indian context.

**The Way Ahead**

- Supporting the innovation ecosystem is crucial. This entails building and sustaining innovation hubs and incubation centres in addition to raising research and development spending.
- To incentivize innovators to seek protection for their ground-breaking ideas, it is equally important to streamline patent procedures and strengthen the capabilities of the Indian Patent Office.

- By demystifying the patent filing process and offering training programs, innovators—especially young ones—can be empowered and a culture of innovation and protection can be fostered.

### PRELIM FACTS

#### **1. Project Collaboration Agreement**

##### **Context:**

Recently, the Ministry of Ayush and the World Health Organization (WHO) formalized a 'Project Collaboration Agreement'

- It aims to bridge Traditional and Complementary Medical Systems with the mainstream of the National Health System, a key initiative outlined in the Traditional Medicine Global Strategy 2025-34 to be prepared by the WHO with the support of the Ministry of Ayush.
- **Objective:** To standardize Traditional and Complementary Medical Systems, incorporating their quality and safety aspects into the National Health System, and disseminating these practices on an international scale.
- This strategy will play a crucial role in achieving the objective of elevating Traditional and Complementary Medical Systems within the national health framework.
- The major goals of this agreement is the strengthening of training and practice in the field of the Complementary Medicine System, specifically 'Siddha.'
- Additionally, the formulation of guidelines for the listing of Traditional and Complementary Medicines, safety protocols, and related efforts are outlined.
- The Ministry, in collaboration with the WHO, will also develop an International Herbal Pharmacopoeia focusing on herbs found in South-East Asia.
- This marks the third collaboration between the Ministry of Ayush and the WHO, with previous agreements signed in 2016 and 2017 focusing on taking Traditional Medical systems like Yoga, Ayurveda, Unani, and Panchakarma to the global level and strengthening the Ayurveda, Unani, and Siddha medical systems.

#### **2. Emissions gap report, 2023**

Context: According to the recent Emissions gap report, 2023, countries' current emissions pledges to limit climate change would still put the world on track to warm by nearly 3 degrees Celsius this century.

- Emissions Gap Report is an annual report released by the United Nations Environment Programme (UNEP)
- The report assesses countries' promises to tackle climate change compared with what is needed.
- The report assessed countries' Nationally Determined Contributions (NDCs), which they are required to update every 5 years.
- The world faces between 2.5 C and 2.9 C of warming above preindustrial levels if governments do not boost climate action.
- The planet-warming greenhouse gas emissions must fall by 42% by 2030 to hold warming at 1.5 C.
- The chance of now limiting warming to 1.5 C is just 14%, adding to a growing body of scientific evidence suggesting the goal is dead.
- Global greenhouse gas emissions rose by 1.2% from 2021 to 2022, reaching a record 57.4 gigatonnes of carbon dioxide equivalent.
- The anticipated level of warming is slightly higher than 2022 projections, which then pointed toward a rise of between 2.4 C and 2.6 C by 2100.
- GHG emissions across the G20 also increased by 1.2 % in 2022.
- India accounts for 18% of the world population, but to date only contributed 5% of warming.

#### **3. India-Middle East-Europe Economic Corridor (IMEC) Project**

The India-Middle East-Europe Economic Corridor (IMEC) Project was signed at the G20 Summit in New Delhi, which holds significant geopolitical and economic implications for India.

- The IMEC will consist of Railroad, Ship-to-Rail networks and Road transport routes extending across two corridors, that is,
  - The East Corridor – connecting India to the Arabian Gulf,



- The Northern Corridor – connecting the Gulf to Europe.
- The IMEC corridor will also include an electricity cable, a hydrogen pipeline and a high-speed data cable.
- India, the US, Saudi Arabia, UAE, the European Union, Italy, France, and Germany.

**Ports to be Connected:**

- India: Mundra (Gujarat), Kandla (Gujarat), and Jawaharlal Nehru Port Trust (Navi Mumbai).
- Middle East: Fujairah, Jebel Ali, and Abu Dhabi in the UAE as well as Dammam and Ras Al Khair ports in Saudi Arabia.
- Railway line will connect Fujairah port (UAE) to Haifa port (Israel) via: Saudi Arabia (Ghuwaifat and Haradh) and Jordan.
- Israel: Haifa port.
- Europe: Piraeus port in Greece, Messina in South Italy, and Marseille in France

**4. Rhododendron**

- In recent times the rhododendron's development and blooming schedules are affected by rising temperatures and changed precipitation patterns
- Rhododendron is a genus of flowering plants that includes over a thousand species, including trees, shrubs and creepers.
- Rhododendron, meaning rose tree in Greek, is considered an indicator species for climate change.
- Rhododendrons were first recorded by Captain Hardwick in Jammu and Kashmir in 1776 where he spotted the Rhododendron arboreum.
- Rhododendrons are native chiefly in the North Temperate Zone, especially in the moist acidic soil of the Himalayas and into Southeast Asia to the mountains of New Guinea.
- Rhododendrons are not endemic to North Temperate Zone of the Himalayas and can be found across the world.
- Darjeeling and Sikkim Himalayas comprise only 0.3% of India's geographical area but the region is home to 1/3rd (34%) of all Rhododendron types.
- The most characteristic aspect of the rhododendron is its vivid and striking flowers in red, pink, white, and purple hues.
- The rhododendron blossom is one of the Uttarakhand's numerous jewels and it is a representation of grace, tenacity and cultural value.
- The rhododendron's development and blooming schedules are affected by rising temperatures and changed precipitation patterns.

**5. The E prime layer****Context:**

Recently, a study by an international team of researchers revealed the formation of a new enigmatic layer – E prime layer at the outermost part of Earth's core.

**About E prime layer:**

- It was believed that a material exchange between the core and mantle is small.
- But the experiments revealed that when water reaches the core-mantle boundary, it reacts with silicon in the core, forming silica.

**How did this layer develop?**

- This latest research suggests that tectonic plates carrying surface water have transported it deep into the Earth over billions of years.
- Upon reaching the core-mantle boundary about 1,800 miles below the surface, this water initiates significant chemical changes, influencing the core's structure.
- Scientists have observed that subducted water reacts chemically with core materials under high pressure.
- This reaction leads to the formation of a hydrogen-rich, silicon-depleted layer at the outer core, resembling a film-like structure.

- Silica crystals generated by this process ascend and blend into the mantle, impacting the overall composition.
- These modifications in the liquid metallic layer could potentially result in reduced density and altered seismic characteristics, aligning with anomalies detected by seismologists.

#### **Significance**

- This discovery enhances researchers' comprehension of Earth's internal mechanisms, indicating a broader and more intricate global water cycle than previously acknowledged.
- The transformed layer in the core holds significant implications for the interconnected geochemical processes linking surface water cycles with the deep metallic core.

#### **6. Technology Development Board**

**Context:** Recently, to bolster the Micro, Small, and Medium Enterprise (MSME) sector in India, the Technology Development Board (TDB) and the Small Industries Development Bank of India (SIDBI) have formalized a Memorandum of Understanding (MoU).

#### **About the Technology Development Board:**

- It is a statutory body constituted under the Technology Development Board Act, 1995 working under the Department of Science and Technology (DST) of the Government of India.
- It aims to promote the development and commercialization of indigenous technology and the adaptation of imported technology for wider application.
- The board consists of 11 Board members.
- It provides equity capital or loans to industrial concerns and financial assistance to research and development institutions. Hence statement 2 is correct.
- The Fund has been receiving grants from the Government of India out of the cess collections from the industrial concerns under the provisions of the Research and Development Cess Act, 1986, as amended in 1995.

#### **Key Facts about Small Industries Development Bank of India (SIDBI)**

- It was established under an Act of Parliament in 1990.
- It is the Principal Financial Institution engaged in the promotion, financing & development of the Micro, Small and Medium Enterprises (MSMEs) sector and the coordination of the functions of the various institutions engaged in similar activities.
- **Objective:** To offer loans (both direct and indirect) to MSMEs to help in addressing the development and financial gaps in the ecosystem of MSMEs.
- It helps MSMEs in acquiring the funds they require to grow the market, develop and commercialize their technologies and innovative products.
- It was made responsible for administering the Small Industries Development Fund and National Equity Fund.

### **ANSWER WRITING**

**Q. In order to solve some of the current issues facing the agriculture industry, a multifaceted approach is required if the objective of Doubling Farmer Income Is To Be Met. Analyze.**

#### **Introduction**

Almost 45% of all workers in India are employed in the agricultural sector, which is one of the most significant in the nation's economy. In 2016, the government announced its audacious goal of tripling farmer income by 2022. Concentrating on agriculture is the best strategy to guarantee long-term high development of the entire economy because it employs the majority of the workforce and is essential to providing food and nutritional security.

**Nevertheless, there are still a number of issues plaguing the agriculture industry that prevent us from reaching our target of doubling farmer incomes:**

- **Low agricultural productivity per unit of land:** Compared to affluent countries, India's farm yield is between 30 and 50 percent lower.
- **Fragmented Landholdings:** While the total area under cultivation has decreased over time, India has seen an increase in the number of agricultural holdings. Together, marginal and small assets

make up 86% of all ownership in India. With the way land is occupied, farmers find it nearly impossible to make a profit on bulk inputs, drip irrigation, tube wells, or storage.

- **Disguised unemployment:** Agriculture employs about 45% of Indians, but only contributes about 18% of the country's GDP. This result in concealed joblessness and low worker productivity
- **Food Inflation and Price Volatility:** Rainfall and its spatial distribution continue to be major factors in India's agricultural output. Unseasonal rains, floods, and other unfavorable weather patterns can upset supply networks and the overall supply, which can cause significant volatility in the trajectory of food inflation.
- **Low value addition by the food processing industry:** In industrialized economies, the food processing value addition ranges from 100 to 300 percent, but in India, it is less than 10% of the produce.
- **Low technology usage:** India's farm mechanization has historically been between 40 and 45 percent, and it is frequently claimed that the country is "tractorized" rather than "mechanized." Tractors make up only 38% of the sector overall globally, but in India they account for 80% of the total industry.

**It takes a multifaceted approach to deal with the challenges listed above:**

- **Taking up cooperative farming:** modest and marginal farmers do not receive compensation for employing technology in their farming because of their modest landholdings. Landholding consolidation and cooperative farming are needed.
- **Declaring MSP for all crops:** Rather than concentrating on the predominant rice-wheat pattern, this will encourage farmers to cultivate crops according to agro-ecological zones. This will additionally tackle the problem of incorrect cropping patterns.
- **Technological Interventions:** The most recent technological intervention was the Green Revolution, which had both bad and positive effects in addition to a plateau in benefits. Large-scale, region-specific technology interventions are urgently needed. Examples include micro-irrigation, rainwater collection, balanced fertilizer applications for soil health, seed certification, and the use of native seed kinds.
- **Minimizing Post-Harvest Losses:** By reducing wastage through the development of cold storage, warehousing, packaging, and cold transport chain infrastructure, agricultural economists have identified significant potential to increase the availability of agricultural produce, particularly horticultural crops like fruits and vegetables.
- **Increased Public Investments:** The development and expansion of agriculture depend on capital formation. Throughout the last 20 years, public investment in agriculture has mainly stayed between 1.7% and 3.5% of GVA. Therefore, more public funding for agriculture is required.
- **Upgrading Food Quality and Safety Standards:** While access into the US and EU markets has remained difficult due to their strict sanitary and phytosanitary (SPS) regulations, Asian and Middle Eastern countries continue to be the primary destinations for Indian agricultural exports. To address this, food safety and quality can be improved.

### Conclusion

Therefore, India would need a second Green Revolution to address the aforementioned issues and actually achieve the aim of doubling farmer income. It is imperative that policy initiatives demonstrate strong political and economic resolve if agriculture is to become profitable and sustainable.

### MCQs

1. Project Collaboration Agreement, recently seen in news is signed between?
  - a) Ministry of Ayush and World Health Organization
  - b) Ministry of Commerce and Industry and World Trade Organization
  - c) Ministry of Health and Family Welfare and World Health Organization
  - d) Ministry of Micro, Small and Medium Enterprises and Ministry of Skill Development and Entrepreneurship
2. Recently, 'E-Prime Layer' was in the news. Which one of the following options best describes it?
  - a) It is a newly found layer at the outermost part of Earth's core.

- b) It is the petroleum reservoir that contains the purest petroleum product.  
 c) It is a new category of super-rich people across world.  
 d) It is a new category of animal species forming the top layer of the food pyramid.
3. Consider the following statements about Emissions Gap Report, 2023
1. It is an annual report launched by the United Nations Environment Programme (UNEP).
  2. India has contributed only 5% to the global warming during 1850-2021.
- Choose the incorrect statements:
- a) 1 only
  - b) 2 only
  - c) Both 1 and 2
  - d) Neither 1 nor 2**
4. Consider the following statements regarding 'Technology Development Board':
1. It is an executive body working under the Department of Science and Technology (DST) of the Government of India
  2. It provides equity capital or loans to industrial concerns and financial assistance to research and development institutions.
- Which of the statements given above are correct?
- a) 1 only
  - b) 2 only**
  - c) Both 1 and 2
  - d) Neither 1 nor 2
5. Consider the following statements about India-Middle East-Europe Economic Corridor (IMEC)
1. The IMEEC was unveiled at the G-20 summit in New Delhi.
  2. India, the US, UK, Saudi Arabia, UAE, and Germany are the signatories to the project.
- Choose the correct statements:
- a) 1 only**
  - b) 2 only
  - c) Both 1 and 2
  - d) Neither 1 nor 2
6. Exercise VAJRA PRAHAR, recently in news, is conducted between India and:
- a) Bhutan
  - b) Sri Lanka
  - c) Nepal
  - d) United States of America (USA)**
7. Consider the following statements regarding Gambusia fish:
1. It is used as a biological agent for controlling mosquito larvae.
  2. It is native to the Indian Ocean.
- Which of the statements given above is/are correct?
- a) 1 only**
  - b) 2 only
  - c) Both 1 and 2
  - d) Neither 1 nor 2
8. Qianlong shouhu', that was in the news recently, is a/an:
- a) earth observation satellite
  - b) new species of flowering plant
  - c) species of dinosaur**
  - d) ancient martial art form
9. Consider the following statements, with reference to Rhododendron:
1. Rhododendron is a genus of flowering plants that includes trees, shrubs and creepers.
  2. Rhododendrons are indicator species for climate change and are an integral part of rituals and mythology.
  3. Rhododendrons are endemic to North Temperate Zone of the Himalayas.
- How many of the above statements is/are correct?
- a) Only one
  - b) Only two**
  - c) All three
  - d) None
10. Mozambique Channel is located in –
- a) The Indian Ocean**
  - b) The Pacific Ocean
  - c) The Atlantic Ocean
  - d) The Southern Ocean