YK GIST - MAY 2021

FEDERAL STRUCTURE PROMOTING INNOVATION
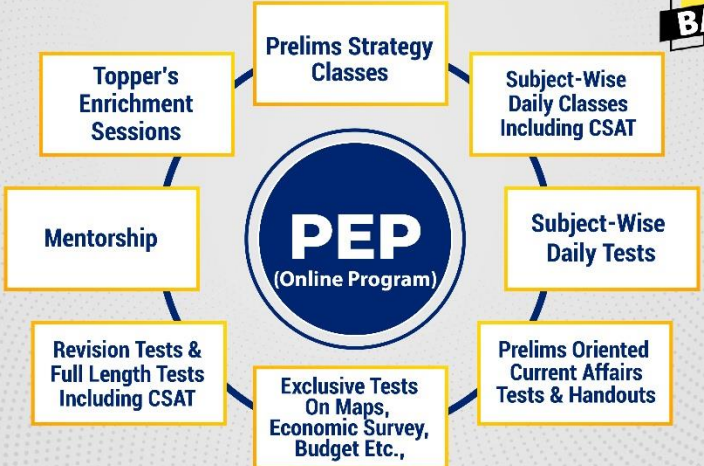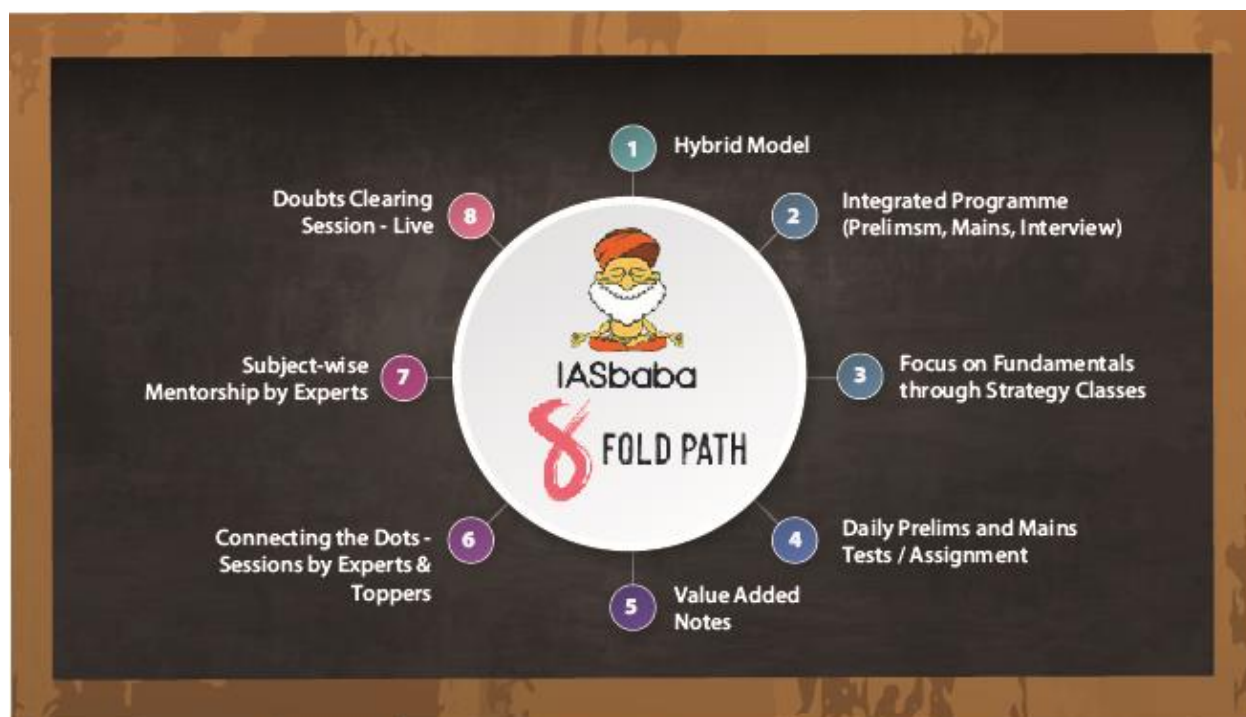
Preface

This is our 74th edition of Yojana Gist and 65th edition of Kurukshetra Gist, released for the month of May 2021. It is increasingly finding a place in the questions of both UPSC Prelims and Mains and therefore, we've come up with this initiative to equip you with knowledge that'll help you in your preparation for the CSE.

Every issue deals with a single topic comprehensively sharing views from a wide spectrum ranging from academicians to policy makers to scholars. The magazine is essential to build an in-depth understanding of various socio-economic issues.

From the exam point of view, however, not all articles are important. Some go into scholarly depths and others discuss agendas that are not relevant for your preparation. Added to this is the difficulty of going through a large volume of information, facts and analysis to finally extract their essence that may be useful for the exam.

We are not discouraging from reading the magazine itself. So, do not take this as a document which you take read, remember and reproduce in the examination. Its only purpose is to equip you with the right understanding. But, if you do not have enough time to go through the magazines, you can rely on the content provided here for it sums up the most essential points from all the articles.

You need not put hours and hours in reading and making its notes in pages. We believe, a smart study, rather than hard study, can improve your preparation levels.

Think, learn, practice and keep improving!

You know that's your success mantra ☺

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FEDERAL STRUCTURE

"In a domestic Government, unity and co-operation are essential requisites."
- Sardar Vallabhbhai Patel

A. NITI Aayog: Redefining Federalism

Essentially, federalism is an institutional mechanism to accommodate two sets of polities—one at the regional level and the other at the national level. Each government is autonomous in its sphere. The Indian Constitution provides for a federation with a strong centre. It does not use the word 'federation' and has described India as a "Union of States", which implies the 'cooperative' nature with certain unitary features. The Union, State, and Concurrent lists demarcate the responsibilities and functions of the two.

The most common analogy given for such a structure is 'the brain' and 'the body parts'. The way they work in tandem with perfect synchronization is the spirit, mind, and soul of federalism as well. Each organ is dependent on the other for smooth functioning and growth of the entire body.

"Constant development is the law of life, and a man who always tries to maintain his dogmas in order to appear consistent drives himself into a false position." – Mahatma Gandhi

Since 2015, NITI Aayog has been working as a thought partner with all stakeholders, especially the States, which are the principal agents for fostering economic development in the country. It **is guided by a 'States-frst' approach. Its founding principles include cooperative federalism (a collaboration between the Central and State Governments) and competitive federalism (spurring healthy competition among States). It is noteworthy that both pillars of the dual mandate are complementary and are being implemented in tandem for guiding the Centre and States towards shared objectives, albeit through customised approaches. Thus, instead of a straitjacket approach, NITI Aayog has adopted a decentralised and bottom-up strategy, to ensure that Central and State Governments work together as equal partners in Team India.**

- Provided a platform for **direct issue based interaction between State Governments and Central Ministries** thereby helping quick resolution of outstanding issues.
- The **NITI Forum for North East** has been constituted and tangible sectoral proposals are being implemented by the States in partnership with the North East council, within the overall framework, with its fve pillars, provided by the NITI Forum.
- It has designed some **major initiatives for island development** which are being implemented by relevant authorities under the overall guidance of the Ministry of Home Affairs.
- It is also envisaged that like the NITI Forum for the North East, other regional councils of contiguous States could be formed in the coming months. This will allow the inclusion of common regional issues and challenges in designing the development path for each of the constituting States. The first step has been taken by forming the **Himalayan States Regional Council** and forming a coalition of all thirteen central universities in these states. These universities are taking up research on issues common to all the **thirteen Himalayan states.**

The indices of Development
NITI promotes competitive federalism principally through pushing its sectoral indices which are put out in the public domain. The indices on water, education, health, innovation, export preparedness, and

Sustainable Development Goals (SDGs) have attracted significant positive attention. These indices are based on a detailed and rigorous analysis of technical parameters.

- The **'Performance in Health Outcomes' Index** captures the overall performance of States in health along with annual improvements in health outcomes, governance, and processes.
- The **Composite Water Management Index** details how States have progressed on water related issues over time, including recognising the high-performers as well as identifying areas for deeper engagement and investment by all States.
- The '**School Education Quality Index'** aims to institutionalise a focus on improving education outcomes (learning, access, equity) in India. The Index comprises a set of indicators that critically influence the overall effectiveness and effciency of the school education sector.
- It has also **introduced a competition element in our ambitious 'Aspirational Districts Program'** which aims to raise the human development indicators in these districts to the national averages by focusing on governance improvement and achieving effective convergence among Government agencies and organisations on the ground. These districts have shown significant improvement in indicators pertaining to health and nutrition, education, agriculture, and water management, financial inclusion, skill development, and basic infrastructure which NITI Aayog is monitoring on a real-time basis. Besides, several best practices in governance have emerged from these districts which are now being scaled up and replicated at the block level in some States.

Surakshit Hum Surakshit Tum Abhiyan:
- o Recently, NITI Aayog and Piramal Foundation launched 'Surakshit Hum Surakshit Tum Abhiyan' in 112 aspirational districts.
- o **Objective:** To assist the administration in providing home care support to Covid-19 patients, who are either asymptomatic or have mild symptoms.
- o Most of these districts are in Jharkhand, Chhattisgarh, Odisha and Maharashtra.
- o **Core Principles:**
  - ▪ **Convergence** (of Central & State Schemes) which brings together the horizontal and vertical tiers of the government.
  - ▪ **Collaboration** (of Central, State level 'Prabhari' Officers & District Collectors) which enables impactful partnerships between government, market and civil society.
  - ▪ **Competition** among districts driven by a spirit of the mass movement fosters accountability on district governments.

Additionally, NITI has been closely monitoring the progress of SDGs across all States and engaging with them to set up real-time technology based monitoring capacities which will help mainstream SDGs in the development process in every State.

Health and Sanitation

- NITI was involved with the drafting of the **National Medical Commission Bill and the Bills for reforming the education system** pertaining to Indian Systems of Medicine and Homeopathy. Both Houses of Parliament have passed all three Bills paving the way for building a world-class medical education system in the country.
- Been closely involved with the design and monitoring of **Ayushman Bharat**, perhaps the largest universal health initiative in the world.

- Played a key role in the **POSHAN Abhiyaan**, launched to provide an appropriate governance structure reflecting the many overlapping factors like access to sanitation and health services that affect the nutritional status of an individual or household.
- Implemented the **SATH – 'Sustainable Action for Transforming Human Capital'** program in 3 States, the best practices from which are being replicated in other States as well.
- Shared a road Map for **Pradhan Mantri Krishi Sinchayee Yojana** with all States and Union Territories

Innovation & Entrepreneurship

The **Atal Innovation Mission (AIM)** is a flagship initiative of NITI for promoting innovation and entrepreneurship across the length and breadth of the country, based on a detailed study and deliberations on the innovation and entrepreneurial needs of India in the years ahead. AIM has adopted a holistic approach towards establishing an integrated ecosystem of innovation and entrepreneurship at school, university, industry levels, linking NGOs, venture capital, and private industries. AIM promotes an innovative mindset in school students through Atal Tinkering Labs (ATLs) which feeds into start-ups fostered by the Atal Incubation Centres (AICs). Over 7,100 ATLs have been sanctioned thus far, covering 90% of districts in India, including 110 Aspirational Districts.

To meet the rising aspirations of our young population, India needs to achieve and sustain a high rate of GDP growth for the next three decades. In pursuit of this goal, continued structural reforms are crucial for laying new foundations to ensure sustained and inclusive growth. NITI Aayog has a key role to play in helping India undertake these reforms and implement policy initiatives in a scalable and impactful manner through partnerships with States.

NITI Aayog's Project for Great Nicobar Island

The Environment Appraisal Committee (EAC) – Infrastructure I of the Ministry of Environment, Forest and Climate Change (MoEFCC) has flagged serious concerns about NITI Aayog's ambitious project for Great Nicobar Island.
Key takeaways

- The committee has, however, removed the first hurdle faced by the project.
- It has "recommended" it "for grant of terms of reference (TOR)" for Environmental Impact Assessment (EIA) studies, which in the first instance will include baseline studies over three months.
- The proposal includes an international container transshipment terminal, a greenfield international airport, a power plant and a township complex spread over 166 sq. km. (mainly pristine coastal systems and tropical forests), and is estimated to cost ₹75,000 crore.

NITI Aayog's ambitious project for Great Nicobar Island
More than 150 sq. km. (18%) of land is being made available for Phase I of a NITI Aayog-piloted 'holistic' and 'sustainable' vision for Great Nicobar Island. The island is the southernmost in the Andaman and Nicobar group.

- It will cover nearly a quarter of its coastline.
- The overall plan envisages the use of a major portion being pristine forest and coastal systems.
- Projects to be executed include an airport complex, a transshipment port (TSP) at South Bay, a parallel-to-the-coast mass rapid transport system, a free trade zone, and a warehousing complex on the southwestern coast.
- Nodal agency: Andaman and Nicobar Islands Integrated Development Corporation (ANIIDCO)
- In January 2021, the Standing Committee of the National Board for Wildlife (NBWL) denotified the entire Galathea Bay Wildlife Sanctuary to allow for the port there.

Galathea Bay
- Galathea Bay is the site of the port and the centrepiece of the NITI Aayog proposal.
- It is an iconic nesting site in India of the enigmatic Giant Leatherback, the world's largest marine turtle.
- A number of species are restricted to just the Galathea region.
- These include the critically endangered Nicobar shrew, the Great Nicobar crake, the Nicobar frog, the Nicobar cat snake, a new skink (Lipinia sp), a new lizard (Dibamus sp,) and a snake of the Lycodon species that is yet to be described.

Must Read: [NITI Aayog's draft Migrant Labour Policy](#)

B. Fiscal Federalism in Covid-19

The world is fighting an unprecedented war. The war against a new and a deadly foe, a highly infectious virus named Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2). This pathogen which causes Covid-19 disease has created the biggest health crisis of this century, upended life globally, wreaked havoc on economies, devastated families, and caused death and debility.

In the initial stages, the lockdown and social distancing measures to check the spread of the contagion had led to a near halt in economic activities. Revenues suffered massively while the expenditure obligations soared. The States needed fiscal support for their liquidity needs.

Steps taken by the Centre to fight the contagion spur economic activity and maintain the standards of public service delivery:

A. Enhancement of Borrowing Limit of States: In India, borrowing by States is governed by the provisions of **Article 293** of the Constitution of India.
- Permitted the State Governments to borrow within the Net Borrowing Ceiling of 3% of their GSDP in a financial year
- To help ease stress in State finances on account of the plunge in their revenue receipts, avoid a severe cutback in capital expenditure, and prevent a contractionary fiscal impulse, the Government of India on May 17, 2020, enhanced the borrowing limit of States for fiscal 2020-21 by 2% of GSDP. This provided extra headroom of Rs. 4.28 lakh crore to States.
  - Four citizen centric areas- "One Nation One Ration Card", ease of doing business, power sector and urban local bodies were identifed for reforms.
  - Borrowing permission of 0.25% of GSDP was linked to the completion of reforms in each area.

B. Ways and Means Advances: The Reserve Bank of India (RBI) provides Ways and Means Advances (WMA) to the States banking with it to help them tide over temporary mismatches in the cash flow of their receipts and payments. RBI has fxed the WMA limit of each State based on multiple factors including total expenditure, revenue defcit and fscal position of the State. Interest on WMA is charged at the RBI's repo rate. States are allowed an overdraft facility, which is the amount drawn over the WMA limit. Overdraft attracts a higher rate of interest.
- Until March 31, 2020, the aggregate WMA limit of the States was Rs. 32,225 crore. On the request of the Centre and the States, RBI on April 7, 2020 increased the WMA limit of States by

60%. This made available an additional amount of Rs. 19,335 crore to the States. The enhanced limit was initially valid untill September 30, 2020 and was later extended till March 31, 2021.

- RBI also extended the period for which a State can be in overdraft from 14 to 21 consecutive working days, and from 36 to 50 working days during a quarter.

Increased WMA limit gave immediate liquidity to States to borrow short-term funds from RBI at a lower rate of interest. It provided them greater comfort to undertake Covid-19 containment and mitigation efforts. The policy intervention also enabled the States to space out their market borrowings.

C. Notifed Disaster Declaration & Relaxation of SDRF Norms: The State Disaster Response Fund (SDRF) has been constituted under **Section 48 (1) (a) of the Disaster Management Act, 2005**. This is the primary fund available to State Governments for responses to notified disasters. The Central Government contributes 75% of SDRF allocation for the general category, and **90% for the north-eastern and hill** States.

- In view of the spread of Covid-19, the Government of India treated Covid-19 as a notifed disaster. State governments could spend SDRF on quarantine related measures, procurement of essential equipment, providing temporary accommodation, food, clothing and medical care for people affected and sheltered in quarantine camps, and for cluster containment operations. Initially, the expenditure on this account was limited to 25% of SDRF allocation for the year which was later enhanced to 50%.
- Moreover, the first instalment of the central share of SDRF was released in advance for the year 2020-21 to all States. Under SDRF, States were provided with an amount of Rs. 11,092 crore in 2020-21.

D. Financial Assistance to States: To soften the blow to their balance sheets on account of the fscal impacts of Covid-19, the States applied brakes on capital expenditure. However, capital expenditure has a higher multiplier effect, enhances the future productive capacity of the economy, and results in a higher economic growth rate.

- Announced the Scheme of Financial Assistance to States for Capital Expenditure in October 2020 with an amount of Rs. 12,000 crore for the scheme. Part of the allocation was set aside for States who carry out reforms in at least three out of the four citizen-centric areas identifed by the Ministry of Finance.
- The Department of Expenditure approved capital expenditure proposals of Rs. 11,912 crore of 27 States under the scheme. An amount of Rs. 11,830 crore was transferred to the States.
- Eleven States also qualifed for enhanced allocation under part-III of the scheme.

E. Special Window for Borrowings: The subsumption of local taxes in GST and the resultant fear of revenue loss led to the enactment of the GST (Compensation to States) Act, 2017. It was agreed that revenue shortfalls arising because of GST implementation would be made good for an initial period of five years from the GST Compensation Fund. This corpus was to be generated through a levy of cess on selected items.

Due to the economic slowdown, a shortfall of Rs. 1.10 lakh crore was estimated in the GST Compensation fund in 2020-21. On request of the States, the Central Government decided to set up a special window to borrow the estimated amount of shortfall on behalf of the States and passed it to them as a back-to-back loan to be repaid from future accruals in the Compensation Fund.

F. Maintaining Tax Devolution to States: The Finance Commission constituted under **Article 280** of the Constitution of India recommends the percentage of the net proceeds of tax or duty to be distributed among States and how such tax or duty would be distributed. 14th Finance Commission had recommended the biggest ever increase in vertical tax devolution in the Central divisible pool from 32%

to 42%. After considering Jammu and Kashmir's reorganisation into Union Territories of Jammu & Kashmir and Ladakh, the **15th Finance Commission** recommended **41%** tax devolution.

- The first quarter of 2020-21, witnessed a sharp decline in Union's gross tax revenue collection. However, during this period, despite the decline, the Union government continued to devolve taxes to the States on the basis of budget estimates for the year 2020-21.
- Moreover, when revenue buoyancy was observed in the last quarter of the financial year, the Centre devolved an additional amount of Rs. 45,000 crore to the States.

Differences between the recessions of COVID-19 pandemic and 2008 financial crisis also known as Global Financial crisis:

COVID-19 Pandemic recession	Global Financial crisis
• Origin and Transmission: It originated outside financial sector. It broke supply chains from china then multiple lockdowns and economy shutdowns, demand slumped. The ensuing distress in the real economy led to distress in the financial system.	• The GFC originated in the financial sector as banks and financial intermediaries got carried away by irrational exuberance and recklessly piled on risk. It unfolded in rich countries. As people lost their wealth and savings in the financial meltdown, demand collapsed and growth slumped. Transmitted from financial sector to real economy.
• Challenge: central challenge is to beat the pandemic, and that solution has to come from science. Only when there is public confidence that the incidence of the pandemic has been brought down to a low-level equilibrium, will there be a resolution in both the real and financial economies.	• To restore faith in the financial system, this meant rescue and rehabilitation of banks and other financial institutions. Once that task in the financial sector was accomplished, repair of the real economy fell in place. Demand came back; supply resumed and growth picked up.
• Asymmetry of the solutions: Every country needs to control the pandemic within its borders. But that is not sufficient because the virus can hit back from across the border. In other words, rich countries are not safe until poor countries are safe too. And no country is safe until every country is safe. The effort to contain the pandemic is exacerbating the challenges in both the real economy and the financial sector. The more stringent the lockdown to save lives, the more extensive the loss of livelihoods. Managing this tension is by far the biggest dilemma for governments battling the crisis.	• Restoring financial stability in the US was necessary, and for the most part, a sufficient condition for restoration of financial stability everywhere. Other countries returned to normalcy eventually as by-product. Solutions in the financial sector and in the real economy reinforced each other. E.g., RBI cut rates to stabilise the financial system, intervened in the forex market, government extended special concessions for housing and real estate sectors to provide stimulus in the real economy.
• Impact: It is more widespread than the economic crisis of 2008, almost every country affected badly.	• China and India were less affected even as all rich countries were in a financial meltdown. In fact, one of the less acknowledged facts of the 2008 crisis is that it was the stimulus provided by China that kept the global economy afloat.

C. Challenges in Federalism and the Way Forward

Federalism in its literal sense is a system of government in which power is divided between a central authority and constituent political units. India's federal structure is very peculiar in nature, it encompasses all those features which suit India's polity according to its own needs and thus has helped India to grow as the largest functional democracy of the world. According to K.C. Wheare the Indian Constitution, can be described as "a system of government which is Quasi Federal a unitary state with subsidiary federal state with subsidiary unitary features." Prof. Wheare observes that "the federal principles is the method of dividing powers so that the general and regional government are each within a sphere are co-ordinate and independent. Both the federal and the regional governments are co-ordinating and independent in their spheres and not subordinate to one another."

Structure of India's federal polity-
- Article 1 of the Constitution of India states that 'India that is Bharat shall be a union of states. Indian federation was not a product of coming together of states to form the federal union of India. It was rather a conversion of a unitary system into a federal system. It is a compromise between two conflicting considerations such as autonomy enjoyed by states within the constitutionally prescribed limit (State List) and the need for a strong centre in view of the unity and integrity of the country (Union List).
- India's federalism is asymmetric in nature the main forms of administrative units in India are the Centre and the States. But there are other forms, too, all set up to address specific local, historical and geographical contexts. Besides the Centre and the States, the country has Union Territories with a legislature, and Union Territories without a legislature. Just as the Centre and the States do not have matching powers in all matters, there are some differences in the way some States and other constituent units of the Indian Union relate to the Centre. This creates a notable asymmetry in the way Indian federalism works. Examples are Article 371, The Sixth Schedule to the Constitution contains provisions for the administration of tribal areas in Assam, Meghalaya, Tripura and Mizoram. These create autonomous districts and autonomous regions.
- The reasons for having a central tilt in the Indian form of federalism:
    - It would be injurious to the interests of the country to provide for a weak central authority which would be incapable of ensuring peace, of coordinating vital matters of common concern and of speaking effectively for the whole country in the international sphere.
    - A strong union government is also necessary for India's survival and political stability, given its vast diversity based on religion, language, caste and ethnicity.
    - The drafting or enacting of any legislation for the entire country requires an extensive consultative process with the State Governments. However, given the diversity in India, it is often very difficult to find a common platform to enact legislation that will find resonance with each state as many times, certain problems and issues may be specific to a particular state and may not meet national consensus. Most times, seeking uniform consensus with all states in a proposed timeframe may become a challenge.

The efficacy of the manner in which powers are distributed between the Union and the States
The Constitution of India provides a dual polity with a clear division of powers between the Union and the States, each being supreme within the sphere allotted to it.
Efficient Manner in which powers are distributed between the union and states:
- Demarcation: The 7th schedule of the Indian Constitution having 3 lists is formulated to ensure the federal character of Indian polity. The division has been helpful in demarcation of subjects and fixing responsibility for lapses in administration.

- International relations and communications: UNO, foreign affairs etc., are subjects in Centre list and hence decisions are taken with uniformity and certainty. E.g. Ex-UN secretary Kofi annan noted Indian foreign policy as stable and credible.
- Holding Accountability: The lists have demarcated the functions and thus help in holding the state/Centre government answerable. E.g. imposition of president rule in UP after Babri masjid incident.
- Uniformity in Administration: subjects like trade and commerce, Banking, regulation of mines, labor etc., ensure uniformity. E.g. uniform interest rate in banks, labour costs etc., ensure that every state is competent in the sphere of economic attraction.
- External security: central government being responsible has been fairly successful in taking timely decisions with necessary force whenever required. E.g. any delays during war time causes set back. Quick decision taken during Kargil was possible only because the defence was entirely with the Centre.

Time and again centre-state relations come under scanner due to increasing centralization of power such as:

- Asymmetric distribution: States complain that Centre has more and important subjects and there is asymmetry in division. Thus, it results in unitary bias. E.g. Raising loans from international market, Banking regulations etc.
- Balance between flexibility and uniformity: Some laws leave little flexibility for states to sync the laws according to their needs for achieving uniformity. A higher degree of detail in law ensures uniformity across the country and provides the same level of protection and rights, however, it reduces the flexibility for states to tailor the law for their different local conditions.
- If a Proclamation of Emergency is in operation: During the operation of the Proclamation of Emergency, the Parliament shall be empowered to legislate for the entire Indian territory or any of its parts with respect to all the matters enumerated in the State List.
- Limited capacity of states: Some laws enacted by Parliament in the concurrent list might require state governments to allocate funds for their implementation. But due to federal supremacy while the states are mandated to comply with these laws they might not have enough financial resources to do so.
- Constitutional practice indicates that use of residuary powers has been at the cost of provincial autonomy, even though the principle of continuing exhaustiveness remains key to the structure of the Seventh Schedule.
- Composition variation: States allege that the union and concurrent list has grown over the years at the cost of state list. A majority government at the Centre helps in this. E.g. 42nd constitutional amendment transferring 5 subjects from state to concurrent list.
- Infringement in the domain of states: Some Bills may directly infringe upon the rights of states i.e. relates to central laws on subjects that are in the domain of state legislatures. E.g. anti-terrorist laws, Lokpal bill, issues with GST and Aadhar etc. where states' power are taken away in a cloaked manner.
- Colorable legislation: The allegations on Centre to encroach upon the state jurisdiction finding the loopholes. E.g. the recent Jammu Kashmir reorganization bill was passed under president rule. The President gave assent to the controversial farm Bills passed by Parliament.

The most pressing challenges of governance arising due to India's federal polity

- India has 25 major river basins with most rivers flowing across states, with rivers being shared between states. Adequate involvement of centre is necessary for preservation and equitable distribution of river water. However inter-state rivers have become sites of contestation between states because of the conflictual federalism dispute resolution has become a long and

tiresome process which creates problems of water availability, for agriculture and drinking purpose. Centres role only comes in dispute resolution in spite of legal framework in the form of Inter State River Water Disputes Act 1956 and River Boards Act 1956.

- Even as Indian Federalism has a tendency towards centralised form, states have sought to assert their interests and influence over the years. This led to imbalance and inconsistency in central governments approach towards the issues which effect country in general such as Tamil issue in Srilanka, river water dispute with Bangladesh etc.
- Increased regional demands such as creation of new states developmental issues ad excess to the resources has led to the conflicts taking India's internal security a hostage.
- One of the most pressing needs of India after its independence was the distribution of land to the landless who have suffered at the hands of colonial powers, but because of the nature of federal polity with distribution of subjects and agriculture and land distribution coming under the purview of states idea of land reforms could not be materialised as envisaged.
- Uneven development is one of the important issues arising out of the existing federal structure in India many of the states inspite of being resource rich could not prosper because policy paralysis and politics based on emotions of caste, and communalism thus development took a back seat.
- Lax attitude of states in implementing centrally sponsored schemes has led to an imbalance in critical social sectors like health and education among the states. An important scheme in the heath sector like Jan Arogya has not been implemented in states like West Bengal, Maharashtra etc.
- In India it is too hard and difficult to bring in comprehensive socio economic and political reforms because of the nature of federal polity. Recent initiatives like GST which revolutionised indirect tax structure in India took around 15 years of deliberations and discussions between states and centre.
- New challenges like environmental issues are impossible to implement unless states play an important role to the commitments in implementing the decisions taken at central level and the commitments India have made at the Paris Conference on Climate Change.
- With the advancement of technology like Industrial Revolution 4.0 and internet of things machine learning, role of states is important in bringing out reforms like ease of doing business, skill development, infrastructural development so that India does not lag behind and could reap the benefits of demographic dividend.

Issues between the Centre & states during the COVID-19 Pandemic

Inadequate finances

- Due to the Covid-19 induced lockdown, the sources of states' revenue have collapsed.
- Their **major revenues** come from liquor sales, stamp duty from property transactions and the sales tax on petroleum products.
- However, their **expenditure** such as on interest payments, social sector schemes, etc. **remains unchanged**.
- States' GST collections have also been severely affected.
- Contributions to the 'Chief Minister's Relief Fund' or 'State Relief Fund for Covid-19' do not qualify as CSR expenditure while contributions to PM-CARES qualify as CSR.
- The suspension of MPLADS has created more differences.

Managing COVID-19 zones

- Zone classifications into 'red' ,orange' and 'green' have evoked sharp criticisms from several States which demanded more autonomy in making such classifications.

- State consultation is a legislative mandate cast upon the centre under the **Disaster Management Act of 2005.**

Migrant Crisis
- The influx of migrant workers into their home states like Uttar Pradesh, Bihar, which already face financial and medical inadequacy, would worsen matters for the states.

Measures to be taken
- The Union government should direct Food Corporation of India to move the grains from the godowns to states.
- Forming of the Inter-State Council a permanent body should be considered.
- Management of disasters and emergencies should be included in the Concurrent List.

A diverse country like India needs a proper balance towards maintaining the needs of the states where they can frame and implement laws and policies according to their needs. The GST reform tells us that consensus building is not a one-time exercise. Sustained dialogue and deliberation are important to allow a maximum convergence of interests between centre and states in dealing with the issues created out of the existing federal structure. Centralisation is not a panacea for all the ills rather harmonious relationship cooperation and collaboration is important to strengthen cooperative federalism

D. One Nation-One Election

There are four bulwarks of Indian democracy; one of them is Election Commission. Election commission is a constitutional body empowered to conduct free and fair elections under Article 324 of the Indian constitution.
Elections are fundamental to democracy. In the long journey of seven decades, Election Commission of India never failed to serve its purpose of facilitating the democracy in the best possible way. In first elections of independent India, election commission successfully handled the mostly illiterate but enthusiastic citizens of India. It also survived the free and fair elections immediately after the end of Emergency in 1970s. Election commission of India is empowered to cancel the elections or call for re-elections if any kind corruption or malpractices are found; this is the most powerful tool in the hands of election commission to make democracy possible in letter and spirit.
- The first Chief Election Commissioner was appointed on 21st March 1950. Since its creation, the Commission was a single member body except for a brief period from 16th October 1989 to 1st January 1990 when it was converted into a three member body.
- Subsequently, since 1st October 1993, the Commission has been a three-member body, consisting of the Chief Election Commissioner and two Election Commissioners.
- The National Voters' Day celebration was initiated in India in 2011 by the then-President of India, Pratibha Devi Patil, on the 61st foundation day of Election Commission of India.
- The Constitution (Sixty-First Amendment) Act, 1988 had lowered the threshold voting age from 21 years to 18 years.

Elections to both Houses
Elections to the Lok Sabha and Legislative Assemblies are held together if the terms of the Houses are ending around the same time. Sections 14 and 15 of the Representation of the People Act, 1951, empower the Election Commission to notify elections any time during the last six months of the term of the House and not earlier than that. A lead time of twenty-five days from the date of notification is a statutorily required minimum period before a poll can be taken. The election schedule is announced a

few days before the election notifcation as an advance notice to the stakeholders. Therefore, if the terms of the Houses are expiring within a window of three to four months, it would be legally possible to hold elections simultaneously to constitute the new Houses. In other words, to contemplate simultaneous elections, we need, as a starting point, a situation where the Lok Sabha and the Legislative Assemblies of all States and Union Territories have their terms ending together.

Synchronising the Terms of the Houses

Both the Lok Sabha and Legislative Assemblies (ordinarily) have a term of five years. While these Elections to the Lok Sabha and Legislative Assemblies are held together if the terms of the Houses are ending around the same time. Sections 14 and 15 of the Representation of the People Act, 1951, empower the Election Commission to notify elections any time during the last six months of the term of the House and not earlier than that. Houses can be dissolved ahead of the scheduled expiry of the term of five years [Articles 85(2)(b) and 174(2)(b)], there is no provision for extension of the term unless a proclamation of Emergency is in operation.

Bringing the terms of all the Houses to sync with one another necessarily calls for either extending the terms of several of the Houses or curtailing of terms or a combination of both, that too by two to three years in some cases. For enabling such curtailing or extension of the term, the relevant Articles of the Constitution mentioned above will have to be suitably amended. Even if the terms are synchronised as a one-time measure, we will still need an adequate legal safeguarding place to avoid mid-term dissolution and protect the simultaneous elections cycle.

For maintaining the electoral cycle, some countries have legal provisions to the effect that for a 'no confidence motion' to be brought up against the government in office, the proposed resolution should also contain a constructive 'vote of confidence' in an alternative government with a named leader to head it. In such cases, even if the sitting government is voted out in the House, there would be an acceptable alternative in place by virtue of the constructive vote of confidence. This helps to maintain the fixed term of the House and preempts stalemate situation thrusting fresh election as the only option.

Why Simultaneous Elections?

1. **Simultaneous elections reduce** labour, time and expenditure in the conduct of elections (saving on transport, accommodation, storage arrangements, training, remuneration, on human resources, on electronic voting machines (EVMs) as well as deployment of the Central Police Force)
2. **Instances of pause in governance are addressed** if elections are conducted in one go instead of staggered elections
3. Simultaneous Lok Sabha and Assembly elections can bring **considerable savings in their election propaganda** campaign expenditure for the political parties.
4. **Model Code of Conduct (MCC)** is a set of behavior guidelines for candidates and political parties that comes into operation from the date election is announced by Election Commission. A crucial part of the MCC is the restrictions on the party in power. MCC prohibits using offcial resources for electoral activities, announcing fnancial grants, new schemes, etc. that may influence the voters in favour of the ruling party. This is a check on the ruling party against using its position of power to woo the electors on the eve of elections and to provide a level playing turf to all stakeholders. The restriction is only in coming up with new schemes during the limited period when MCC is in force. The schemes, programs, and work already in progress are not affected. If all elections are held together, the restrictions under MCC will be through in one go.
5. A simultaneous nationwide election could push up the voter turnout since a once-in-fve-year event is bound to attract more enthusiastic participation across all sections. Frequent elections can bring in the election-fatigue factor at least among some sections of electors. Simultaneous

elections in a regular electoral cycle may help address the fatigue element and the usually observed urban apathy in voting. Better electors' participation will further add to the credibility of the elections.

Growth Story of Gujarat

The State of Gujarat was established on May 1, 1960.
- Has the lowest unemployment rate in India, i.e., 3.5%.
- Became the first state to implement 10% reservation for the non-reserved population as per the Central Government guidelines.
- World's largest hybrid Renewable Energy Park, is coming up at Kachchh, has a 30,000 megawatts capacity.
- The world's first CNG Terminal is being set up at Bhavnagar in Gujarat, operating 6 million tonne cargo annually.
- Gujarat, which contributes a significant eight per cent to the country's GDP, received a substantial amount of Foreign Direct Investments. In 2019-20, Gujarat was considered the Best Destination for Foreign Direct Investment in India.
- Gujarat accounts for more than 23% of the country's total exports, and the State ranked first in the 'Export Preparedness Index 2020' released by NITI Aayog. Gujarat has also been getting the first position in startup rankings and logistics rankings for two consecutive years.
- Gujarat is the first state to establish the State Yoga Board.
- Gujarat is second after Tamil Nadu to set up Desalination Plant to make seawater potable.
- India's first smart city is being set up at Dholera. It has been included in the list of six smart cities by the Central Government.

Tourism:
- Apart from Gir and Devalia Safari Park, Ambardi Safari Park has been opened in Amreli, which hosts Asiatic Lions.
- Shivrajpur Beach in Gujarat is being developed as a world-class tourist destination. It is among eight beaches of India, which has been given the Blue Flag Beach tag.
- The only Dinosaur Fossil Park of India has been constructed in Rayioli village of Balasinor. It is India's largest and the world's third-largest dinosaur fossil site.
- UNESCO has declared Champaner and Rani Ki Vav, Patan as heritage sites, and Ahmedabad has been included as the first heritage city.

Maharashtra: A Journey of Over Sixty Years

Ancient history:
- Presence of many Chalcolithic sites in present-day Maharashtra, and some like Inamgaon (1300 BCE to 700 BCE) were extensively excavated.
- Rule of the Mauryas (4th century BCE to 2nd century BCE); Remains of the inscriptions of Ashoka have been found in the state.
- The Satavahanas ruled between 1st century BCE to 3rd century CE. After the decline of the Satavahana rule, many small kingdoms were established like the Abhiras, Traikutakas, etc.
- In the 4th century CE, the Vakataka rulers came to prominence. They had two branches both ruling in Vidarbha. Some of their rulers had patronized the cave excavation activities at Ajanta in the 5th century CE.
- Maharashtra was ruled by a few rulers in the 6th – 7th centuries CE like the Kalachuris (Madhya Pradesh) and Western Chalukyas (Karnataka).
- In the 8th century CE when the Rashtrakutas came to power, they were involved in creating the

world-famous caves at Ellora.

Medieval history:

- The Yadavas (10th century to 13th century CE) were the next rulers in the state. The Shilahara rulers were contemporary to them ruling in western and southern Maharashtra. This period marks the efflorescence of the temple building activity in Maharashtra. Allauddin Khilji of the Delhi Sultanate defeated the Yadavas.
- Muhammad bin Tughlaq shifted his capital to Daulatabad (Devagiri) from Delhi for some time. After the decline of the Tughlaqs, the Bahmani Sultanate started ruling over Maharashtra in the 14th century CE. After the disintegration of the Bahamani empire, the Nizam Shahi and Adil Shahi ruled over different parts of the state.
- In the 17th century CE, Chhatrapati Shivaji established his independent rule in Maharashtra. Maratha Empire lasted until the British took over it in 1819.

Modern history:

- **1885:** Establishment of the Indian National Congress in Bombay.
- Establishment of the first Indian newspaper **Darpan**
- Maharashtra has been a **pioneer of women's rights and the Indian feminist movement**. From the early 19th century onwards, the state saw a host of thinkers and reformers who campaigned against child marriage and Sati, while simultaneously upholding women's education and widow remarriage. Prominent names include the late Justice MG Ranade, his wife Ramabai Ranade, Savitribai Phule, and Pandita Ramabai.
- **India's first female doctor, Late Anandi Bai Joshi** comes from the state of Maharashtra.
- 'Oxford of the East': Pune

Post-independence history: On 1st May 1960, the separate Marathi speaking state of Maharashtra was created.

Geography

Bordering States: The modern state of Maharashtra is bordered by the Arabian Sea to the West, Gujarat and the Union Territory of Dadra and Nagar Haveli to the Northwest, Madhya Pradesh to the North & North East, Chhattisgarh to the East, Karnataka to the South, Andhra Pradesh to the Southeast and Goa to the Southwest.

Natural features in the state:

- The Western Ghats form the source of several major rivers of Maharashtra, notable among them being the Godavari and the Krishna.
- The Sahyadri Range is the defining geographical feature of Maharashtra. The Konkan, lying between the Arabian Sea and the Sahyadri Range, is a narrow coastal lowland.
- The Satpuras, hills along the northern border, and the Bhamragad Chiroli-Gaikhuri Ranges on the eastern border form physical barriers.

Natural Resources:

- Apart from the mainly occurring rock Basalt; other rocks like Laterite are found in the coastal humid and tropical region.
- Maharashtra is rich in ore deposits. Granite, Granite gneiss, Quartzite, Conglomerates are found in the basement regions of the Konkan Rivers.
- Kamti of the Nagpur region is famous for coal.
- The Chandrapur, Gadchiroli, Bhandara, and Nagpur Districts form the main mineral belt, with coal and manganese as the major minerals and iron ore and limestone as minor minerals.

Art and Culture:

Architecture: Over 70 percent of India's rock cave art is in the state.

- Of all these, Ajanta and Ellora, in the vicinity of Aurangabad, are world-famous heritage sites;

carved out of solid rock.
- Buddhist rock-cut caves like Bhaja, Pitalkhora, Karla and Nasik are also equally famous rock-cut caves in the state.
- The Elephanta Caves are a network of sculpted caves on Elephanta Island.

Art forms: Musical forms like Powada, a song praising the valour of a great ruler and graceful dance forms like Lavani are popular art forms of the state. The Koli dance form is also famous in the coastal region of the state.

Religion:
- The Bhakti movement—a medieval movement spread all over the country between the 13th and 17th centuries found resonance in Maharashtra as well. Famous personalities of the Bhakti movement includes saint poets like Dnyaneshwar, Namdev, Tukaram, and Chokhamela.
- The Warkari movement every year in June-July sees a plethora of farmers and myriad believers in Vitthoba (an avatar of Lord Vishnu) converge to Pandharpur in an annual pilgrimage.

Sustainable Development Goals (SDGs)[3]

Goal	Target
1. Eradicate extreme poverty and hunger	1. Halve, between 1990 and 2015, the proportion of people whose income is less than $1 a day 2. Halve, between 1990 and 2015, the proportion of people who suffer from hunger
2. Achieve universal primary education	3. Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling
3. Promote gender equality and empower women	4. Eliminate gender disparity in primary and school education, preferably by 2005 and in all levels of education no later than 2015
4. Reduce child mortality	5. Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate
5. Improve maternal health	6. Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio
6. Combat HIV/ AIDS, malaria and other diseases	7. Have halted by 2015 and begun to reverse the spread of HIV/ AIDS 8. Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases
7. Ensure environmental sustainability	9. Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources 10. Halve by 2015 the proportion of people without sustainable access to safe drinking water 11. Have achieved by 2020 a significant improvement in the lives of at least 100 million slum dwellers
8. Develop a global partnership for development	12. Develop further an open, rule-based, predictable, non-discriminatory trading and financial system (includes a commitment to good governance, development, and poverty reduction-both nationally and internationally) 13. Address the special needs of the least developed countries (includes tariff- and quota-free access for exports, enhanced programme of debt relief for and cancellation of official bilateral debt, and more generous official development assistance for countries committed to poverty reduction) 14. Address the special needs of landlocked countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and 22nd General Assembly provisions) 15. Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term 16. In cooperation with developing countries, develop and implement strategies for decent and productive work of youth 17. In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries 18. In cooperation with the private sector, make available the benefits of new technologies, especially information and communications technologies

PROMOTING INNOVATION

A. Promoting a Culture of Innovation and Entrepreneurship in India

Innovations have been a driving force in growth of the economy across the world. India being one of the fastest growing economies of the world, it has emerged as an important destination for innovations in various fields. India is ranked amongst the top 50 countries (48th) by World Intellectual Property Organization in the Global Innovation Index 2020 an improvement from 81st rank in 2015. The consistent improvement in India's global rankings is owing to the immense knowledge capital, the vibrant startup ecosystem, and the work carried out by the public and private research organizations.

Global Innovation Index
- Ranks the world economies based on their innovation capabilities.
- The study is based on the 80 different indicators, capturing the multi-dimensional aspects of innovation.
- GII report mentions that India has shown a consistent improvement in its innovation ranking in the last five years. In the report, India ranks high in knowledge and technology outputs (27th) and market sophistication (31st). However, India has been assigned a relatively lower rank in infrastructure (75th). India has been ranked 2nd for the fifth consecutive year with top positions in the quality of scientific publications (21st globally and the quality of its universities (22nd). Indian Institute of Technology (Bombay and Delhi) and the Indian Institute of Science Bengaluru have been recognised as top 3 universities.

Changing Trends and Challenges
- **Rapidly Evolving Ecosystem–**Demands of all the ecosystem stakeholders are now rapidly changing, and nowadays they all want high growth and quick adaptability to customer changing requirements which commonly results in acquisitions and restructuring.
- **Focus on Futuristic Deep Techs –** Corporates and start-ups have started facing a hard time acquiring customers that can give them high economic returns by minor modifications/ incremental innovations. Hence, to derive high value, their focus has been shifted towards next-gen technologies like genetic engineering, IoT, 5G, quantum computing, etc.
- **Digitisation and Democratisation of Information–**As more and more users have started using digital technologies, a huge volume of data are being generated. Now, organisatons need to deal with increasing data, maintaining transparency and dissemination of information through their value chain network.
- **Requirement for Specialised Manpower–**As the world is progressing exponentially in the field of science and technology, the requirement of the workforce is shifting from having nonskilled labour to someone specialised in nextgen technologies. There is an acute shortage of people having the desired skill set. Also, their desires are different, and most of them do not want to be employed, rather would want to establish their startup.

Critical Impediments to Scientific innovation and indigenisation in India:
- **Institutional problems:** Our educational institutions are heavily exam oriented and thus lack in focusing on creativity, critical thinking, and open-mindedness. Which hampers the innovative and indigenisation spirit.
- **Poor university-industry linkage:** This leads to limited application oriented R&D. For instance, as per 'Quacquarelli Symonds (QS) world ranking of institutes, 2019' only three Indian institutes were placed in the top 200 universities of the world. The curriculums are outdated and they lack focus on skill development and employability potential.

- **Administrative bottlenecks**: Dominance of bureaucratic administrative structure in Indian research units and political interference in day to day activities of research institutions by government is in conflict with intellectual sum. Public access to science and scientists is limited.
- **No cordial interaction** between interaction of the scientific community with administrators and lawmakers for public engagement and societal support for science and the scientific activity.
- **Funding Issues**: India (Public and Private) spends only 0.82% of GDP on R&D, Private sector spends less than 0.2% of GDP on R&D, India attracts only 2.7% of global spending in R&D whereas China attracts 17.5%.
- **Lack of curiosity-driven research** and role of indigenous knowledge or "folk science" in a diverse bio and geo sphere has pushed India backwards. There is no proper networking between practitioners and experts from diverse field into a national platform and share the same with scientific community and students.
- **Weak IPR regime** of patents and trademarks reduces incentives for entrepreneurs to invest in innovation and research.
- **Reducing Fiscal Deficit:** For instance, India is the second largest arms importer in the world (after Saudi Arabia). Higher import dependency leads to increase in the fiscal deficit. Despite having the fifth largest defence budget in the world, India procures 60% of its weapon systems from foreign markets.
- World Economic Forum survey says that only 17% of Indian respondents stated that the so-called "cultural support pillar" was available in the country. Thus it hinders people from taking up research and other activities which have uncertain outcomes. It has created a cultural affinity for stability and job security over risk-taking.
- **Large country, Diverse issues:** While literacy levels are increasing, scientific literacy is still drastically low. Given India's large population, limited resources and multitude of languages, mass science education faces particularly great challenges. Without more attention on local languages, much of the population will miss out on science communication efforts.

Steps taken by the government to promote innovation: India, as a country, is surrounded by challenges that demand innovative non-linear solutions for challenges which need to be addressed such as poverty, education, healthcare, and the environment.

- The decade (2010-20) was identified as the decade of innovation.
- The Department of Science and Technology, the Department of Biotechnology and the Department of Space are playing important roles in promoting the national innovation ecosystem.
- The government is focused on creating innovation and incubation labs.
- The fast-growing $180 billion Information Technology Enabled Services (ITES) and biotech industry in the country over the past decade has shown the world India's scientific, engineering and technological advancement and capabilities.
- Atma Nirbhar Bharat has now turned the gaze of this world-class innovative talent inwards, to create products and services for the Indian market at par with other countries.
- Atal Innovation Mission is transforming a nation of job seekers to a nation of researchers, innovators, and job creators.

National Science, Technology and Innovation Policy (STIP 2020)
In a difficult year, government has managed to complete an expert-driven, bottom-up, evidence-based and inclusive draft of the fifth National Science, Technology and Innovation Policy (STIP 2020)
Need of National Policy: STIP 2020 is the collective aspiration to ensure that we get the benefits of our national investments in science and technology. It is a comprehensive policy framework the guides & promotes investment in Science & Technology.

The Science, Technology and Innovation Policy will be guided by the following broad vision:
1. **Atmanirbhar Bharat:** To achieve technological self-reliance and position India among the top three scientific superpowers in the decade to come.
2. **Human Capital**: To attract, nurture, strengthen and retain critical human capital through a 'people centric' science, technology and innovation (STI) ecosystem.
3. **Investment**: To double the number of Full-Time Equivalent (FTE) researchers, Gross Domestic Expenditure on R&D (GERD) and private sector contribution to the GERD every 5 years.
4. **Globally Competitive**: To build individual and institutional excellence in STI with the aspiration to achieve the highest level of global recognitions and awards in the coming decade.

Key features of draft STIP are:
1. **Objective**: STIP 2020 by way of its decentralized, bottom-up, and inclusive design process aims to restrategize priorities, sectoral focus, and methods of research and technology development for larger socio-economic welfare.
2. **STI Observatory and Centralised Database**
   - STIP will lead to the establishment of a National STI Observatory that will act as a central repository for all kinds of data related to and generated from the STI ecosystem.
   - It will encompass an open centralised database platform for all financial schemes, programmes, grants and incentives existing in the ecosystem.
   - The Observatory will be centrally coordinated and organized in distributed, networked and interoperable manner among relevant stakeholders.
3. **Open Science Framework**
   - A future-looking, all-encompassing Open Science Framework will be built to provide access to scientific data, information, knowledge, and resources to everyone in the country and all who are engaging with the Indian STI ecosystem on an equal partnership basis.
   - All data used in and generated from publicly-funded research will be available to everyone under FAIR (findable, accessible, interoperable and reusable) terms.
   - A **dedicated portal** to provide access to the outputs of such publicly-funded research will be created through Indian Science and Technology Archive of Research (INDSTA).
4. **STU Education to be made more inclusive**
   - **Online learning platforms** will be developed using Information and Communication Technology (ICT) to address the issue of accessibility and to promote research and innovation at all levels.
   - **Teaching-learning centres (TLCs)** will be established to upskill faculty members which in turn will improve the quality of education.
   - Engaged Universities will be created to promote **interdisciplinary research** to address community needs.
   - Higher Education Research Centres (HERC) and Collaborative Research Centres (CRC) will be established to provide **research inputs to policymakers** and bring together stakeholders.
5. **Increasing Investments**
   - With an aim to expand the financial landscape of the STI ecosystem, each department/ ministry in the central, the state and the local governments, PSUs, private sector companies and startups will **set up an STI unit** with a minimum earmarked budget to pursue STI activities.
   - Each State **will earmark a percentage of the state allocation** for STI-related activities under a separate budget head.
   - STI investments will be increased through **boosting fiscal incentives**, enhancing support to industry, especially Medium Small Micro Enterprises (MSMEs), for pursuing research through innovation support schemes and other relevant means on a need basis.

- To ensure systematic governance of the expanded STI financing landscape, **an STI Development Bank w**ill be set up to facilitate a corpus fund for investing in direct long term investments in select strategic areas

6. **Translational Research and Promotion of Innovation**
   - The policy aims to create a fit for purpose, accountable research ecosystem promoting translational as well as foundational research in India in alignment with global standards.
   - An institutional architecture to integrate **Traditional Knowledge Systems (TKS)** and grassroots innovation into the overall education, research and innovation system will be established.
   - Grassroots innovators will also be supported for registration, claiming the Intellectual Property Right (IPR), filing of patent, or any type of legal claim with the help of Higher Education Institute (HEIs).

7. **Technology self-reliance and indigenization**
   - A two-way approach of indigenous development of technology as well as technology indigenization will be adopted and focused upon in alignment with national priorities, like sustainability and social benefit, and resources
   - A Technology Support Framework will be created to facilitate this development. A Strategic Technology Board (STB) will be constituted to act as a link connecting different strategic departments.

8. **Inclusivity an integral part of STIP**
   - An India-centric Equity & Inclusion (E&I) charter will be developed for tackling all forms of discrimination, exclusions and inequalities in STI leading to the development of an institutional mechanism.
   - An inclusive culture will be facilitated through equal opportunity for women along with candidates from rural- remote areas, marginalised communities, LGBTQ+ Communities and differently-abled individuals including Divyangjans.

9. **International Engagement**
   - Engagement with the Diaspora will be intensified through attracting the best talent back home through fellowships, internships schemes and research opportunities expanded and widely promoted across different ministries.
   - Appropriate facilitating channels will be created for remote contribution as well.
   - An engagement portal exclusively for the Indian scientific diaspora will be created. 'S&T for Diplomacy' will be complemented with Diplomacy for S&T '.

10. **STI Policy Institute**
    - To serve all the aspects of STI **policy governance** and to provide the knowledge support to institutionalised governance mechanisms , a STI Policy Institute will be established to build and maintain a robust interoperable STI metadata architecture.
    - It will conduct and promote nationally and internationally relevant STI policy research and strengthen the science advice mechanism at national, sub-national and international levels.
    - It will develop long term capacity building programs for STI policy through training and fellowships.
    - An implementation strategy and roadmap will be devised for STI policy and programs along with continuous monitoring and timely evaluation mechanisms.

The Way Ahead – Setting rules for our tomorrows
Innovations have the potential to make India a collaborative society, and there is a need to translate innovation to entrepreneurship. At the same time, these innovations need to revitalize every link in the innovation value chain, and be replicable that can reach out to all cross-sections of the society.

Mantra to be followed: Innovate, Patent, Produce and Prosper – IPPP

A. Create the right set of conditions for game-changing business models to emerge and flourish – India needs to nourish a true culture of innovation.

- Entrepreneurship should become the centerpiece of contemporary education, as it is not only about the ability to start companies, but also to think creatively and ambitiously. Students need to be "innovation-ready" to face the challenges of the complex world they will be a part of in the future. To have an entrepreneurial mindset is to have the ability to identify and solve problems.
- Schools should encourage children to tinker rather than memorise and mug. Work cultures should be such that young talent looks up and questions – rather than looks down and nods.

B. Technology is the key

- We have to promote cutting-edge technologies alongside grassroots innovations so that a pipeline for future applications is generated. Big or small, businesses are looking to adopt emerging technologies.
- To keep pace, we must be re-inventing, challenging and rethinking the way we do business. That means venturing into unfamiliar territory.
- Step one for India in seizing the global tech stage is internalizing this elemental spirit of innovation.

C. Adopt the culture of embracing failure and fear

- Failure is an essential ingredient for innovation. But in India, we have traditionally been much more risk-averse.
- We need to grow comfortable with risk—and pursue forward-looking opportunities with potential for enormous payoff.

Innovations by themselves are not enough. We must also build an ecosystem for converting innovations into enterprises. This requires support for start-ups and for incubating young innovators. Therefore, India must work towards translating innovative ideas into accessible and affordable products and services for its people. At the end of the day, innovation is all about people, and that's a resource that India has in abundance.

India Innovation Index 2020

By: NITI Aayog

It seeks to rank the states and union territories based on their relative performance of supporting innovation, and to empower them to improve their innovation polices by highlighting their strengths and weaknesses. The ranking methodology is designed in a way that states can draw lessons from the national leaders in innovation.

- The states and union territories have been divided into 17 'Major States', 10 'North-East and Hill States', and 9 'City States and Union Territories', for effectively comparing their performance.
- The states and union territories have been ranked on two broad categories: outcome and governance.
- Overall, the framework of India Innovation Index 2020 consists of 36 indicators, which include hard data (32 indicators) and four composite indicators.

India Innovation Index 2020 builds on the previous year's methodology by introducing more metrics and providing a holistic outlook of the Indian innovation ecosystem.

- The framework has been updated to include globally considered parameters for measuring innovation (such as the percentage of gross domestic product spent on research and development), while also retaining the parameters specific to the Indian economy.
- The index captures the trends and provides detailed analyses of the various factors that drive innovation at the country, state, and district levels.

It is believed that these analyses would enable policymakers in identifying catalysts and inhibitors of innovation at the national and sub-national levels.

The Results

Most innovative among major states: Karnataka; The state's success has been attributed to a high number of venture capital deals, registered GIs and ICT exports, and high FDI inflow.

Most innovative Union Territory: Delhi

Delhi has scored the highest on the index in the country with a score of 46.6, while Lakshwadeep has the lowest score at 11.7. Delhi recorded the highest number of trademark and patent applications, along with the establishment of new start-ups and companies in the last financial year.

Four southern states – Karnataka, Tamil Nadu, Telangana and Kerala —occupy the top positions on the index, apart from Maharashtra.

Amongst North East and hill states, Himachal Pradesh has the highest score of 25.

Some observations:
- India spends only 0.7 per cent of its GDP on R&D, much lower than the top spenders such as Israel (4.95 per cent).
- There's a North-South divide in the findings of the report, with the southern states having fared much better.
- As states become more innovative, they have higher per capita GDP.

The Way Forward
- There is a need for increased expenditure in R&D by the private sector. The Indian government is a major spender in R&D, while the investment of the private sector is very low. Compare this to Israel where private companies account for 70 per cent of private investment in R&D. In 2017-18, the Indian government had the lion's share of investment in R&D at 41 per cent.
- India needs to increase its spending on R&D. Currently, India spends only 0.7 per cent of its GDP on R&D, much lower than the top spenders such as Israel (4.95 per cent).

National Innovation Portal (NIP)

Ministry: Ministry of Science & Technology

Developed by: National Innovation Foundation (NIF) – India

Key takeaways
- The National Innovation Portal (NIP) is currently home to about 1.15 lakh innovations scouted from common people of the country, covering Engineering, Agriculture, Veterinary and Human Health.
- The innovations cover Energy, mechanical, automobile, electrical, electronics, household, chemical, civil, textiles, etc.
- Innovation Portal is a step towards Atmanirbhar Bharat and an excellent resource for students, entrepreneurs, MSME's, Technology Business Incubators (TBI's) and common people engaged in a variety of occupations.

National Innovation Foundation (NIF) – India is an autonomous body of the Department of Science and Technology (DST), Government of India.

B. Ensuring Employment Growth through Innovations

India is a country with over 1.39 billion people, 31 percent of which are between the age of 18 and 35 (Census of India, 2011) and many of these young people are in search of jobs, despite being educated.

In the present age of Information and communication technology (ICT), the technological advances have been constantly innovating the Indian job sector, giving rise to millions of new jobs. According to the Indian Staffing Federation (ISF) research, the future is set to see another three million new jobs in the IT space, catapulting India's tech army to reach 7 million by 2023.

- The new-age jobs are envisioned to spawn in emerging technology areas such as the Internet of Things (IoT), Artificial Intelligence (AI), Machine Learning (ML), big data, blockchain, Augmented Reality (AR) and data science, among others.
- While these technologies add greater efficiency to enterprise operations by reducing human hours and increasing productivity levels, the new jobs also call for skilled professionals adept at handling digital tools, which most Indian enterprises apparently lack at present.
- The instances evidencing the impact of innovation on employment growth are numerous. The country's first biotech startup Biocon was started in 1978 as a garage start-up, with just 3 employees in an era where innovation and entrepreneurship were unheard of. Today, it is an innovation-led global biopharmaceuticals company that is catering to the unmet global need for affordable life-saving medicines.
- Robotic automation has emerged as their biggest worry as it significantly replaces low-skilled jobs.
- Automation is anticipated to execute over 40 percent of such jobs as per an International Labour Organisation (ILO) report.
- Incentivizing innovation and Intellectual Property (IP) creation is crucial for India's future growth prospects.
- The faith that enables entrepreneurs to propel ideas into sustainable businesses will add value to our economy in the long run and help the country achieve self-reliance – resulted in the launching of the 'Aatma Nirbhar Bharat' programme.

Initiatives taken by Government of India for promoting innovation:
- **Make in India** launched by the Central Government in 2014 to attract foreign investors and industrialists to manufacture here in India, represents a comprehensive and unprecedented overhaul of outdated processes and policies. The scheme aimed at creating an ecosystem and environment for manufacturing with the protection of intellectual property, that encourages innovation and skill development, gives tax benefits, lowers excise duty, and gives access to the Indian market.
- The Ministry of Electronics and Information Technology (MeitY) has approved a **Technology Incubation and Development of Entrepreneurs (TIDE 2.0) Scheme** being implemented by its Innovation and IPR Division.
- To support tech start-ups, seven select thematic areas were identified to address societal challenges based on national priorities particularly in the realm of:
  (i) Healthcare
  (ii) Education
  (iii) Agriculture
  (iv) Financial inclusion including digital payments
  (v) Infrastructure and transportation
  (vi) Environment and clean tech
  (vii) Clean Energy Solutions

- **Multiplier Grants Scheme (MGS)** was launched with a view to encouraging collaborative Research and Development between industry and academics/Research and Development institutions for the development of products and packages.
- The Department of Science and Technology launched the **NIDHI programme** in 2016 (National Initiative for Developing and Harnessing Innovations).
  - Under this, programmes for setting up incubators, seed fund, accelerators and 'Proof of concept' grant for innovators and entrepreneurs have been launched.
  - Under NIDHI, PRAYAS (Promoting and Accelerating Young and Aspiring innovators & Start-ups) programme has been initiated.
  - Under PRAYAS, established Technology Business Incubators (TBI) are supported with PRAYAS grant to support innovators and entrepreneurs who are supported with grants for 'Proof of Concept' and developing prototypes.
- **Atal Innovation Mission (AIM), the Atal Incubation Centres (AICs) scheme** supports the setting up of greenfield incubation centres that nurture innovative start-up businesses in their pursuit to become scalable and sustainable enterprises.
- **Unnat Bharat Abhiyan 2.0** to help bring transformational change in rural development processes by leveraging knowledge institutions to help build the architecture of an Inclusive India.
- **IMPRINT India** is aimed at adopting engineering and technology as the vehicle to addressing the societal needs and achieving national prosperity
- Forging technology and innovation partnerships with other nations like **India-Israel Innovation Bridge** will act as link between start-ups of India and Israel.
- Various **enabling policies** like Science, Technology & Innovation Policy 2013, National Intellectual Property Rights Policy, Technology Vision Document 2035 and Space Vision India 2025 have been framed.

What India needs urgently, is the comprehension that in today's knowledge-driven economy, innovation is the primary driver of the progress. India's ability to generate wealth and create social good will come to naught unless we monetise innovative ideas by unshackling our entrepreneurial spirit. For innovation to flourish, ideas must be funded and taken to market. Without capital, even the most transformative ideas can die before they take flight.

To sum up, an active collaboration between the government, the private sector and civil society to understand the likely impact of innovations and technological changes and to respond with corresponding adjustments to the business, policy and educational landscape will be crucial. The opportunities presented by technological disruption are immense. Now is the time for India to harness them.

India Agricultural Platform (IAP)

As the use of new technologies like artificial intelligence flows in, new ideas of combining a host of existing technologies to create a unified India Agricultural Platform (IAP) is emerging. As an example of what can be achieved using an IAP, India AI describes a farmer logging into the IAP platform (securely using retina scan), and the platform, using the digital Aadhaar identification system, geolocation and other such data matrices is able to evaluate the credit potential of the farmer, connect the farmer to state and private credit agencies, and facilitate the loan – the entire process completed digitally without the agriculturist having to travel to various offices to pitch their case.

- An IAP brings together all the benefits of artificial intelligence and data analytics to help tactical and strategic decision making, leveraging multi-layer, multi-source information, aggregated

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> - from the farms to state/national levels.
> - It processes huge data flows, and using tools like video, voice, vernacular translation, facilitate farmer engagement.
> - In essence, a platform like the IAP is likely to be the new frontier in fuelling rural innovation because it will transform the use of technology in agriculture like Aadhaar changed the identification process in the country, and UPI (United Payments Interface) transformed digital payments.
> - An IAP is likely to assist in everything from real-time purchase and sale of raw materials, produce and equipment, provide real-time relevant information such as weather patterns and track a timeline of the consumption and production history of the farmer, and make the cultivation process more data-driven and accurate.
> - Such a system would help farmers scale in a far more systematic fashion than current processes.

Multiple Choice Questions

1. Justice N V Ramana is the new Chief Justice of India appointed by the President. This is done by exercising of the powers conferred by ……………. of the Constitution of India.
a) Clause (2), Article 124
b) Clause (3), Article 123
c) Clause (1), Article 121
d) Clause (2), Article 123

2. Consider the following statements regarding the Chairman of the Legislative Council of a State in India:
1) He is elected by the members of the concerned State Legislature.
2) He can be removed from his office by a resolution passed by a majority of all those present and voting members of the concerned State Legislature.
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 is correct

3. Which one of the following is not a correct statement regarding the provision of Legislative Council in the State Legislature?
a) The States of Bihar and Telangana have Legislative Councils.
b) The total number of members in the Legislative Council of a State shall not exceed one-third of the total number of members in the Legislative Assembly.
c) One-twelfth of all members shall be elected by electorates consisting of local bodies and authorities.
d) One-twelfth of all members shall be elected by graduates' residing in the State.

4. Who is the new revenue secretary appointed in the recent bureaucratic reshuffle?
a) Ajay Bhushan Pandey
b) Tarun Bajaj
c) Gyanesh Kumar
d) Ajay Seth

5. Consider the following statements with respect to the powers of the Governor of a State:
1) The Governor can summon, prorogue and dissolve the State Assembly.

2) The Governor can adjourn the sittings of the State Assembly.

3) The Governor addresses the frst session of the Legislative Assembly after elections.

4) The Governor causes to lay the annual budget in the State Assembly.

Which of the statements given above are correct?

a) 1 and 2

b) 1, 3 and 4

c) 2 and 3

d) 2 and 4

6. Who among the following got an 18 months' extension as Securities and Exchange Board of India (SEBI) Chairman?

a) Ajay Tyagi

b) Surjeet Singh Deswal

c) Arvind Kumar

d) Yogesh Chandra Modi

7. Which of the following is not related to the powers of the Governor?

a) Diplomatic and military powers

b) Power to appoint Advocate General

c) Summoning, proroguing and dissolving State Legislature

d) Power to grant pardons, reprieves, respites or remission of punishments

8. Which country has undergone a legislation according to which its President will continue in power until 2036?

a) Brazil

b) Russia

c) China

d) South Korea

Answers: 1. (a), 2. (d), 3. (c), 4. (b), 5. (b), 6. (a), 7. (a), 8. (b)

All the Best ☺
Team IASBaba