GROUP 2 MAINS CURRENT AFFAIRS – SPECIAL COURSE

OCTOBER MONTH – 2021 - ENGLISH

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INDIA IN SPACE

Reforms In Space Sector Aimed at Boosting Private Sector Participation

- ✓ Indian National Space Promotion and Authorization Centre (IN-SPACe) has been created to provide a level playing field for private companies to use Indian Space infrastructure.

- ✓ The Public Sector Enterprise 'New Space India Limited (NSIL)' will endeavour to re-orient space activities from a 'supply driven' model to a 'demand driven' model.

- ✓ These reforms will allow ISRO to focus more on research and development activities, new technologies, exploration missions, and human spaceflight programme.

Origin & Evolution of Space Activities in India:

- Indian National Committee for Space Research (INCOSPAR) was set up in 1962 under the Department of Atomic Energy.

- Indian Space Research Organisation (ISRO) was established in August 1969, in place of INCOSPAR.

- Now, ISRO has become one of the six largest space agencies in the world.

COMBATING COVID-19

India's population, the presence of population-dense areas, diversity and the status of its healthcare system presented manifold challenges to India's fight against Covid-19.

Steps Taken to Combat Covid-19

- ✓ Soon after the WHO declared Covid-19 a pandemic, the first interministerial committee chaired by Dr V K Paul (member NITI Aayoga) met to review India's preparedness to the crisis.

- ✓ Major decisions taken by the committee included
  - Creating web portal, contact tracing app, handbook and laboratory manual for training of RT-PCR testing
  - Standardise specifications for PPE kit
  - IT support for Covid-19 management

India was amongst the earliest in the world, even ahead of WHO, to issue advisory on mask usage for curbing the spread of virus.

PMO constituted the Vaccine Task Force (VTF) for focused R&D of Corona Vaccine

VTF strategy was based on six major pillars

- Vaccine Development
- PPE and Ventilators
- Testing, Tracking, and Diagnostics
- Therapeutics and drugs
- Surveillance: Seroprevalence and genome sequencing
- Regulation and regulatory support

Vaccine Development

- The first week of January 2021 saw the Emergency Use Authorization (EUA) accorded to two Indian vaccines: Covishield from the Serum Institute of India; Covaxin from Bharat Biotech
- These vaccines being available in record time, nine months from the declaration of the pandemic, is a testimony to the capacity of the Indian vaccine industry
- In August 2021, third vaccine from India- DNA vaccine candidate ZyCoV-D, from Zydus Cadila got approval.
- Today, about 50% of India has been vaccinated for the first dose, a total of 63.07 crore persons, 8.2% of the total world population, which is unparalleled.

Conclusion:

The success of Indian vaccine development during the Covid-19 pandemic will go down in history as a self-reliant India that came together with an unprecedented political will and governance to develop and deploy the vaccine in record time, with equity and equal access.

ENERGY SECURITY: NUCLEAR POWER

- India is one of the world's largest energy consumers and currently relies on importing fuels to a significant extent.
- The major fuel in India's energy mix is coal (55%). Nuclear energy makes up about 3%, and renewable energy sources about 20%.

Importance of Nuclear Energy for India

- India plans to maintain economic growth of 8% annually, which implies that electricity demand will grow proportionately.

- India as an emerging country will have to find a middle ground between economic development and environmental sustainability, which requires it to change its energy mix.
- Nuclear energy is considered by many as being the only source of energy suitable to support continuous industrialisation and urbanisation. • Keeping this in mind, India embarked on its commercial nuclear power production in 1969 with the commissioning of two boiling water reactors (BWR) of 210 MWe capacities each

Nuclear Power Programme

- India's nuclear power programme was conceived to be a closed fuel cycle, to be achieved in three sequential stages.
- These stages feed into each other in such a way that the spent fuel generated from one stage of the cycle is reprocessed and used in the next.
- It was designed to breed fuel and to minimise the generation of nuclear waste.
- The ultimate objective is to utilise the country's vast reserves of thorium-232. India has the world's thirdlargest reserves of thorium.
- Thorium, however, cannot be used as a fuel in its natural state. It needs to be converted into its usable "fissile" form after a series of reactions.
- Hence, to eventually produce nuclear power from its thorium reserves, three-stage nuclear programme was envisioned.
- First stage - Pressurised Heavy Water Reactors (PHWRs) will be used to produce energy from natural uranium. Besides producing energy, it will produce fissile plutonium (Pu)-239.
- Second stage – It involves using the indigenous Fast Breeder Reactor technology fuelled by Pu-239 to produce energy and more of Pu-239. • By the end of the second stage of the cycle, the reactor would have produced more fissile material than it would have consumed, thus earning the name "Breeder."
- Third stage - It would involve the use of Pu-239 recovered from the second stage, in combination with thorium-232, to produce energy and U-233 — another fissile material — using Thermal Breeders. This production of U-233 from thorium-232 would complete the cycle.

Nuclear Reactors in India

Nuclear Power Corporation of India Ltd is the public sector enterprise, under the Department of Atomic Energy, entrusted with the task of nuclear power generation in the country.

Currently, there are 22 operational nuclear reactors in India with a total installed capacity of 6780 Mwe. These are:

- Tarapur 1 & 2 (BWR) – 2X160 MW; Rajasthan 1 to 6 (PHWR) – 100 +200 + 4X220 MW
- Madras 1 & 2 (PHWR) – 2X220 MW;
- Kudankulam 1 & 2 (PWR) – 2X1000 MW
- Narora 1 & 2 (PHWR) – 2X220 MW;
- Tarapur 3 & 4 (PHWR) – 2X540 MW
- Kaiga 1 to 4 ((PHWR) – 4X220 MW;
- Kakrapar 1 & 2 (PHWR) – 2X220 MW

- Besides, Kakrapar Unit-3, the first reactor in the 700 MWe PHWR series, has been commissioned in July 2020.
- In addition, 10 nuclear power reactors with a total of 8000 MW capacity are under construction.
- This includes a 500 MWe Prototype Fast Breeder Reactor (PFBR) of the second stage of the nuclear power Programme. It is being constructed by Bharatiya Nabhikiya Vidyut Nigam Limited (BHAVINI).
- On progressive completion of the projects under construction and accorded sanction, India's nuclear power capacity is expected to reach 22480 MW by the year 2031.

Relevance of Nuclear Energy

Economic and Strategic Vulnerability –

Currently, India draws nearly 63 per cent of its total energy generation from thermal sources.

- Of this, nearly 55 per cent is met from coal and the rest from gas, with a minuscule amount from oilfired plants.
- India imports a significant part of its fossil fuels which raises economic and strategic vulnerabilities.

Environment friendly

India's per capita carbon emissions stand at 1-1.2 tons, compared to 20 tons per capita of the US. If a growing Indian economy continues to rely on coal, carbon emissions are bound to rise.

Limitations of Renewable Energy

solar and wind energy generation is land-intensive. Solar plants carry a dependence on imported technology. Another solar and wind power generation related handicap is in energy storage, which makes them unsuitable as a baseload source of electricity.

Various Programmes Run by Dept of S&T (DST)

INSPIRE Programme and MANAK Scheme

- Innovation in Science Pursuit for Inspired Research (INSPIRE) programme is implemented by National Innovation Foundation (NIF) to encourage students to pursue science as a Career.
- INSPIRE Scheme has included three programmes - (a) Scheme for Early Attraction of Talents for Science (SEATS), (b) Scholarship for Higher Education (SHE), and (c) Assured Opportunity for Research Careers (AORC).
- The INSPIRE Awards - MANAK (Million Minds Augmenting National Aspirations and Knowledge) Scheme is being executed by DST with NIF.
- It aims to motivate students in the age group of 10-15 years and studying in classes 6 to 10. The objective is to target one million original ideas/innovations rooted in science and societal applications to foster a culture of creativity and innovative thinking among school children.

'Vigyan Jyoti' and 'Engage with Science'

- Both the programmes are mandated to create a level-playing field for the meritorious girls in high school to pursue Science, Technology, Engineering, and Mathematics (STEM) in their higher education.
- It also offers exposure to girl students from rural backgrounds to help plan their journey from school to a job of their choice in the field of science.
- Vigyan Jyoti is a programme to promote STEM learning among girl students from grades 9 to 12 to pursue STEM in their higher education, especially from the top colleges in the areas where girls are hugely underrepresented.

- Engage with Science aims to build interest and create a community of practice with students, teachers, and scientists connecting the high-school students to the higher education institutions.

Vidyarthi Vigyan Manthan Programme (VVM)

- It is a national programme for popularising science among school students of standard VI to XI.
- It is conceptualised to identify the bright minds with a scientific aptitude among the student community.

Kishore Vaigyanik Protsahan Yojana (KVPY)

- It is implemented by the Indian Institute of Science (IISc), Bangalore to encourage students who are studying Basic Sciences to take up a research career in science.

JIGYASA Programme

- CSIR has launched a student-scientist connect programme JIGYASA, in collaboration with Kendriya Vidyalaya Sangathan (KVs) with the primary objectives of extending the classroom education and focusing on wellplanned research laboratory-based learning.
- Jigyasa is planned to inculcate the culture of inquisitiveness, along with the scientific temper amongst the school students and their teachers.

NUTRITION AND VACCINATION

- Today the world faces a double burden of malnutrition that includes both undernutrition and obesity.
- Women are at a greater risk of malnutrition due to the increased nutritional requirements associated with menstruation, pregnancy, and lactation.
- According to the Comprehensive National Nutrition Survey report (2016—2018), 35% of Indian children aged 0-4 years are stunted, 17% are wasted, and 33% were underweight.

Initiatives on Nutrition

Anganwadi Service Scheme (launched in 1975)

- It represents one of the world's largest and unique programmes for Early Childhood Development.
- Delivers a package of six services: supplementary nutrition, pre-school non-formal education, nutrition & health education, immunisation, health check-up, and referral services.
- Beneficiaries – Pregnant women and lactating mothers; Operational through Anganwadi Centres

POSHAN Abhiyan (launched 2018)

- It attempts to deliver a high impact package of interventions for first 1,000 days of life, along with multisectoral convergence, and bringing out behavioural change through Jan Andolan
- Target is to bring down stunting of children aged under 6 years from 38.4% to 25%, by the year 2022.

Pradhan Mantri Matru Vandana Yojana (PMMVY) (launched in 2016)

- It is a maternity benefit programme which provides partial compensation for wage loss in terms of cash incentives of Rs 5000.
- It is provided to the pregnant women & lactating mothers for the first child given in three instalments, subject to fulfilling specific conditions related to maternal and child health.

Scheme for Adolescent Girls

- It is aimed at fulfilling the multi-dimensional needs of out- of-school adolescent girls (11-14 years).
- A package of following services is provided to adolescent girls: i. Nutrition supplies ii. Iron and Folic Acid (IFA) supplementation iii. Health check-up and Referral services iv. Nutrition & Health Education V. Mainstreaming out-of-school girls to join formal schooling Vi. Life Skill Education, Counselling, etc.

National Programme of Mid-Day Meal in Schools

It is implemented by the Ministry of Education, wherein one mid-day meal is provided to children as per the nutritional standards given in the Schedule-II of the National Food Security Act, 2013.

Anemia Mukt Bharat

It was launched for prevention and treatment of anemia in children (5-9 years) and adolescent girls and boys (10-19 years).

Initiatives on Vaccination

Universal Immunisation Programme (UIP)

- launched in 1985.
- The programme consists of vaccination for 12 diseases- tuberculosis, diphtheria, pertussis (whooping cough), tetanus, poliomyelitis, measles, hepatitis B, diarrhoea, Japanese encephalitis, rubella, pneumonia (haemophilus influenzae type B). and Pneumococcal diseases (pneumococcal pneumonia and meningitis).
- Universal Immunisation Programme is one of the largest public health programmes in the world.
- It targets around 2.9 crore pregnant women and 2.67 crore new-born annually.

Mission Indradhanush

- Launched in December 2014 to increase immunisation coverage for children and pregnant women in India from 65% in 2014 to at least 90% in the next five years through special catch-up drives.
  - ✓ Intensified Mission Indradhanush 2.0 – It will focus the districts which have immunisation coverage of 70% or below. This aims to achieve the SDG of ending preventable child deaths by 2030.
  - ✓ Intensified Mission Indradhanush (IMI) 3.0 –Focus of IMI 3.0 will be the children and pregnant women who have missed their vaccine doses during the Covid-19 pandemic.

Covid-19 Vaccination

- ✓ The Covid-19 vaccination utilises the existing infrastructure of the Universal Immunisation Programme (UIP).
- ✓ A unique digital platform- Co-WIN supports the vaccination activity, helps the programme managers in registration and tracks every beneficiary for Covid-19 vaccination along with real-time information.

Atal Mission for Rejuvenation and Urban Transformation (AMRUT)

- ✓ Purpose: to improve quality of life for all (in 500 cities)
- ✓ providing assured tap water supply & sewage connection to every household
- ✓ increasing amenity value of cities by developing greenery and well-maintained open spaces (ex: parks) and
- ✓ reducing pollution by switching to public transport

Significance:

- ✓ reduces pollution
- ✓ storm water drains eliminate flooding in cities
- ✓ realises the spirit of cooperative federalism (as states are equal partners in planning & implementation)
- ✓ enables women empowerment by saving their time
- ✓ empowers municipal functionaries through Capacity Building and
- ✓ leads to timely completion of projects.

Assam Accord:

Memorandum of Settlement (MoS) signed between representatives of the Government of India and the leaders of the Assam Movement in 1985

Key features:

- ✓ All those foreigners who had entered Assam Between 1951 and 1961 - Full citizenship, including the right to vote
- ✓ Between 1961 and 1971 - Only citizenship, no voting rights for 10 years
- ✓ After 1971 - Expelled and deported

India's green forest cover has been declining

Intensity of forest cover loss in India:

- ✓ India lost 4.69 MHA of its forests for various land uses between 1951 to 1995
- ✓ Reasons: Increased population increased usage of forest resources, developmental activities etc
- ✓ According to State of World's forests report, 2020, Since1990, around 420 million hectares of forest have been lost through deforestation, conversion and land degradation

What are those factors that aids in restoring forest cover?

- ✓ Understanding local ecology

- ✓ Enhancing scientific research
- ✓ Formulating guidelines for locally suitable interventions
- ✓ Involvement of local communities
- ✓ Adequate financing and incentives in restoration activities

Cooperative federalism in tax sharing

GST Compensation

Compensation by the centre to states when the latter undergoes revenue shortfalls due to the implementation of GST.

Purpose of compensation:

To incentivize states to accept and implement the GST because, States have to give up the control over their major tax revenues including the state sales tax that are to be merged under GST.

Legality of GST compensation:

- ✓ Section 7 of the GST (Compensation to States) Act, 2017
- ✓ As per this clause, loss of revenue to the States on account of implementation of Goods and Services Tax shall be done for 5 years once in every two months (i.e., till 2022)

Role of Panchayat Raj Institutions in dealing with Covid-19

Regulatory functions

- ✓ Set up containment zones, arranged transport, identified buildings for quarantining people and provisioned food for the incoming migrants
- ✓ Gram Sabhas facilitated diverse ideas and opinions by sticking to Covid-19 norms
- ✓ Engaged with frontline workers (like ASHA & Anganwadi workers)This enhanced trust between community and officials
- ✓ Organised community-based surveillance systems by involving local youth, elders and self-help groups to monitor Covid-19 cases
- ✓ Mobilised citizens for Covid-19 vaccination

Welfare functions

✓ Effective implementation of welfare schemes like MGNREGA and the National Rural Livelihood Mission

✓ This quickened the pace of recovery and ensured support to the vulnerable population

Significance of green hydrogen:

✓ Reduces carbon footprint

✓ Facilitates to supply 25% of world's energy needs by 2050

✓ Ensures energy security

✓ Helps India to meet its renewable energy targets

✓ Facilitates India to become self-reliant in energy sector

✓ Enables to develop innovative and sustainable technologies at attractive costs

✓ Reduces dependency on crude oil which in turn reduces Current Account Deficit

Gati Shakti

A digital platform for coordinated planning and implementation of infrastructure connectivity projects by mapping all infrastructure related initiatives.

How it integrates

✓ Incorporates infrastructure related schemes of all ministries and State governments

✓ Uses technology like spatial planning tools with ISRO imagery developed by BiSAG-N (Bhaskaracharya National Institute for Space Applications and Geoinformatics)

Significance:

✓ Improves connectivity for movement of people, goods and services from one mode of transport to another

✓ Makes Indian businesses more competitive

✓ Facilitates the last mile connectivity of infrastructure

✓ Reduces travel time for people

✓ Removes regional & sectoral

✓ Aids in faster growth of key sectors

✓ Generates employment opportunities

✓ Develops new possibilities for creation of future economic zones

How is Gati Shakti different from National Infrastructure Pipeline (NIP)? ∗

- ✓ NIP is a list of infrastructure projects government wants to build by 2025
- ✓ Whereas Gati Shakti is a digital backbone to implement those infrastructure projects built under NIP
- ✓ Complete details of a project (from stakeholders to last mile connectivity) will be digitalised in this platform

challenges of Indian bureaucracy

- ✓ Under staffed
- ✓ Under performance due to political pressure
- ✓ Judicial overreach
- ✓ Corruption
- ✓ Unwillingness to take decisions fearing dire consequences
- ✓ Obsession over accountability of process but not results

Ways to address these challenges

- ✓ Preventing punitive action (like arrests) against Civil servants for economic decisions
- ✓ Expanding lateral entry to 15% of higher-level positions in government and in areas where problem-solving professionals are needed
- ✓ Creating safe work culture to enable bureaucrats in taking genuine risks
- ✓ Evaluating performance of bureaucrats periodically
- ✓ Promoting e-governance

Only by addressing the existing challenges of bureaucracy, India will be able to attain a $5 Trillion Dollar economy as it is the bureaucracy who is a backbone for functioning of a nation

Electricity (Amendment) Bill, 2020

Challenges of power sector in India

- ✓ Expensive long term power purchase agreements
- ✓ Poor infrastructure
- ✓ Inefficient operations
- ✓ Leakages and weaknesses in State level tariff policies

✓ Aggregate Technical and commercial (AT & C) loses of distribution companies.

How is Electricity (Amendment) Bill, 2020 a game changer in addressing these challenges?

✓ Sets out a method to delicense power distribution companies

✓ Empowers citizens to choose their power supplier (as consumers will have more options to buy power)

✓ Ensures efficiency and quality by allowing private entry as it increases competition

✓ Facilitates open access to purchase power from open market

✓ Entry of private ensures quality and reduces loses (Ex: Privatisation of Discoms reduced AT&C loses in Delhi from 55% to 9%)

✓ Removes cross-subsidy surcharge, additional surcharge and electricity duty on state governments

✓ Strengthens regulation of power sector

- As it proposes to appoint a legal adviser in every electricity regulatory commission for faster resolution of pending cases and reduce legal issues

- Electricity Contract Enforcement Authority helps in fulfilling contractual obligations under the power purchase agreement

✓ Promotes renewable energy -The distribution companies that do not comply with renewable energy purchase obligations will be penalised

Central Bureau of Investigation (CBI)

✓ India's premier investigating agency that handles all high-profile cases.

✓ Its job is to ensure a fair and an impartial probe.

Evolution of CBI:

✓ It was not established through any act of the parliament, but it derives its power of investigation from the Delhi Special Police Establishment Act 1946.

✓ Origins of CBI can be traced back to the Special Police Establishment (SPE) set up in 1941 in order to investigate cases of bribery and corruption in War & Supply Department of India during World War II.

✓ The need for a Central Government agency to investigate cases of bribery and corruption was felt after the end of World War II. So, DSPE (Delhi Special

Police Establishment) Act, 1946 was brought that gave the legal power of investigating cases to CBI.

✓ CBI comes under the jurisdiction of the Ministry of Personnel, Public Grievances and Pensions

Appointment Procedure of CBI director:

✓ Appointment process of CBI director has seen several changes over the years. Currently the appointment is carried out as per Lokpal act of 2014 by a committee headed by the prime minister.

✓ The CBI is headed by a director who is an IPS officer of the rank of Director General of Police.

✓ The process of appointment of the CBI chief has gone through several changes over the years.

✓ Before the Lokpal act was enacted in 2014, the appointment was made on the basis of Delhi Special Police Establishment Act, 1946.

✓ The DSPE Act was revised in 2003 based on the Supreme Courts recommendation, so as to make the appointment process of the agency's director transparent.

✓ Under the DSPE act the central government formed a commission headed by the chief vigilance commissioner.

✓ The committee had members from CVC, secretaries from home ministry, ministry of personnel and public grievances.

✓ The committee would send its recommendations to the central government which would then appoint the CBI director. However, after Lokpal act came into force in 2014 the appointment process underwent a change.

✓ The Lokpal act of 2014 provides for an empowered committee for the appointment of CBI chief

✓ The committee is headed by the PM and has the leader of opposition as its member. It also has the CJI or a Supreme Court Judge recommended by the CJI as its member.

✓ The process begins in the home ministry that prepares the list of IPS officers eligible for the post, which will be sent to the Department of Personnel and Training.

✓ DOPT prepares the final list based on the 'seniority, integrity and experience' in the investigation of anti-corruption cases. The list then goes to the committee headed by the PM.

✓ The government will then appoint the director.

Ayushman Bharat Health Infrastructure Mission

✓ As outlined in the 2021-22 budget, to give special attention to health care services and health care infrastructure based on the lessons learn from Covid-19 pandemic, Indian government has launched Ayushman Bharat Health Infrastructure Mission which is also known as Pradhan Mantri Atmanirbhar Swasth Bharat Yojana (PMASBY)

✓ It is the largest pan-India scheme that will be implemented in every district to create and improve long-term public healthcare infrastructure

Purpose:

✓ To address three critical gaps in India's public health sector

✓ Augmenting health facilities for treatment

✓ Setting up of Integrated Public Health labs for diagnosis of disease

✓ Expansion of existing research institutions that study pandemics

What the scheme does to achieve this?

✓ Conducts comprehensive surveillance of infectious diseases through

✓ Integrated Public Health laboratories at district level

✓ National Centre for Disease Control at state level

✓ Integrated Health Information Platform (IHIP) at national level

✓ Creates comprehensive diagnostics and treatment facilities

✓ Conducts comprehensive pandemic research by setting up research institutions

✓ Establishes medical colleges in every district

Supreme Court's clarification on ambit of Unlawful Activities (Prevention) Act, 1967

Unlawful Activities (Prevention) Act, 1967:

Aim:

To curb certain unlawful activities including terrorist activities and related matters, carried out by individuals and associations in India and abroad.

Features

- ✓ It was enacted by the 16th Constitutional Amendment Act, 1963
- ✓ It empowered Parliament to impose by law reasonable restrictions under Article 19 of the constitution in the interests of sovereignty and integrity of India
- ✓ Under this act, Parliament can impose reasonable restrictions on:
  - Freedom of Speech and Expression
  - Right to Assemble peacefully and without arms
  - Right to form associations or unions.
  - In 2019, this act was amended.

Provisions of the amended act were:

- ✓ It allows the Central government to designate an organization as a terrorist organization and individuals as terrorists for committing or participating in acts of terrorism.
- ✓ Government can impose travel ban on such individuals once they are declared as terrorists.
- ✓ Investigation: Investigation of cases can be conducted by officers of the rank of Deputy Superintendent or Assistant Commissioner of Police or above and officers of the NIA, of the rank of Inspector or above.
- ✓ An investigating officer is required to obtain the prior approval of the Director General of Police to seize properties that may be connected with terrorism.
- ✓ When the case is being investigated by the NIA, the Director-General of National Investigation Agency (NIA) is empowered to grant approval of seizure or attachment of property

Concerns over the usage of this law:

- ✓ In past 5 years, out of 7000 + registered cases under terrorism, only 155 are convicted
- ✓ This clearly indicates the misuse of laws to showcase 'power' rather than providing 'justice'
- ✓ Strictness of this law infringes right to life and liberty of the accused

Agni V

To neutralize various aerial threats at close ranges including sea-skimming (a technique of flying as low as possible) targets

Features of Agni P missile:

✓ Surface-to-surface nuclear-capable InterContinental Ballistic Missile (ICBM)
✓ ICBMs are guided missiles that can deliver nuclear and other payloads.
✓ ICBM's Range: 5,500 km (minimum)& 7,000 to 16,000 km (maximum)

Significance:

✓ Facilitates in strengthening India's credible minimum deterrence capabilities
✓ Minimum deterrence means, a country will have nuclear weapons that are enough and necessary to defend from an enemy
✓ Enables India to join countries like China, the US, Russia, Britain and France that have ICBMs

National Education Policy:

✓ It is prepared by the committee led by the Chairman Dr. Kasturirangan on education policy.
✓ It is designed to meet the changing dynamics of the requirements in terms of quality education, innovation and research.
✓ It is built on the foundational pillars of Access, Equity, Quality, Affordability and Accountability

Features of the Policy:

✓ To rename the Ministry of Human Resource Development as Ministry of Education (MoE).
✓ To make Early Childhood Care and Education (ECCE) as an integral part of school education.
✓ A 5+3+3+4 curricular based on cognitive and socio-emotional developmental stages of children was proposed

It consists of:

1. Foundational Stage (age 3-8 yrs): 3 years of pre-primary plus Grades 1-2
2. Preparatory Stage (8-11 years): Grades 3-5
3. Middle Stage (11-14 years): Grades 6-8

4. Secondary Stage (14-18 years): Grades 9- 12

✓ To reduce content load in school education curriculum

✓ All subjects, including arts, music, crafts, sports, yoga, community service, etc will be part of the curricular.

✓ Extension of Right to Education Act 2009 to cover children of ages 3 to 18 (currently, 6-14).

✓ 4-year integrated stage-specific B.Ed. programme will eventually be the minimum degree qualification for teachers.

✓ A new apex body Rashtriya Shiksha Ayog is proposed, to enable a holistic and integrated implementation of all educational initiatives. National Research Foundation is proposed for creating a strong research culture in higher education.

✓ National Higher Education Regulatory Authority will be the only regulator for all higher education including professional education.

✓ Standard Setting, Funding, Accreditation and Regulation will be separated and conducted by independent bodies.

✓ UGC to be transformed to Higher Education Grants Commission

✓ The private and public institutions to be treated on par, and education will remain a 'not for profit' activity.

✓ Setting up three new National Institutes for Pali, Persian and Prakrit were proposed.

✓ Emphasised to introduce mother tongue as medium of instruction in schools.

✓ Recommended that all students will learn three languages in their school under the 'formula'

<h2 style="text-align:center; color:red;">Judicial activism</h2>

Recently, the Supreme Court has stepped in to address the issue of oxygen shortage in the states and the inability of the Centre to cater to their exact requirements. It has set up a task force of experts which is being called as the instance of "judicial activism" by several sections in the country. 1979, the judiciary led by the Supreme Court in India became relevant to the nation in a manner not contemplated by the makers of the Constitution and became an active participant in the dispenser of social justice. The concept of PIL in India was started by Justice Krishna Iyer and Justice P.N. Bhagwati.

Judicial Activism

Judicial activism – it is the instance in the judiciary where it sidelines the government and gives its decisions or frames a policy which would otherwise be the domain of the legislature.

Constitutional Background:

- Indian constitution does not describe judicial activism but some articles provide judiciary to act in its own way if required.
- Article 142 states that "the Supreme Court in the exercise of its jurisdiction may pass such decree or make such order as is necessary for doing complete justice."
- But, the Supreme Court has also ruled that the separation of powers between executive, legislature, and judiciary is the part of the basic structure.
- Article 121 and 211 provides for non discussion of the conduct of judges in the legislature ensuring the judicial independency

Judicial activism and Positive impacts

- Judiciary can provide speedy solutions which can be stuck in the legislatures due to lack of support
- It provides a system of checks and balances to the other government branches.
- Many a time public power harms the people, so it becomes necessary for the judiciary to check misuse of public power.
- Supreme Court is described as the guardian of the constitution and is obligated to ensure the legitimacy and legality of the laws.
- It provides an opportunity to the honourable judges to act upon their wisdom.
- It helps to build trust among the common people that they can rely upon the judiciary against the excesses of the administration.

Negatives of Judicial Activism

- Judges can override any existing law. Hence, it clearly violates the line drawn by the constitution.

- Repeated interference of courts can erode the faith of the people in the quality, integrity and efficiency of governmental institutions.

- Judiciary tries to keep itself away from any reforms as it struck down the NJAC proposed by the government.

- It infringes upon the separation of powers which it itself has described as the part of the basic structure.

- Frequent interruptions by the judiciary may create a roadblock for the legislative reforms.

- Some judicial persons may unleash it due to personal ambitions.

However, the governance cannot be replaced by the judicial institutions. There is a need to discover a balance between judicial and executive institutions. We need to reassert the balance between reforms, development and institutions. Judicial activism should not be used to lead to the Constitutional principles of separation of power getting eroded.

Anti-defection law

The anti-defection law was passed in 1985 through the 52nd Amendment to the Constitution. with an intent to curb "the evil of political defections". Under the anti-defection law, legislators may be disqualified from their membership to the House if they resign from their party after being elected, or defy the direction issued by the party leadership during a vote on any issue. Over the years, several contentious issues in relation to the working of the law have arisen. Recently many legislature faced this Karnataka, pondychery , Delhi etc

What constitutes defection? Who is the deciding authority?

The law covers three kinds of scenarios. One is when legislators elected on the ticket of one political party "voluntarily give up" membership of that party or vote in the legislature against the party's wishes. A legislator's speech and conduct inside and outside the legislature can lead to deciding the voluntarily giving up membership.

The second scenario arises when an MP/MLA who has been elected as an independent joins a party later. The third scenario relates to nominated legislators. In their case, the law specifies that they can join a political party within six months of being appointed to the House, and not after such time.

Violation of the law in any of these scenarios can lead to a legislator being penalised for defection. The Presiding Officers of the Legislature (Speaker, Chairman) are the

deciding authorities in such cases. The Supreme Court has held legislators can challenge their decisions before the higher judiciary.

Issues with the anti-defection law

- Speaker's role is controversial
- Re-election of disqualified members
- Party domination is increased over representative
- Legislative Stability is no more possible
- It reduces accountability of MLA /MP
- Long delay of the cases

Conclusion

The Election Commission has suggested it should be the deciding authority in defection cases. Others have argued that the President and Governors should hear defection petitions. And last year, the Supreme Court said Parliament should set up an independent tribunal headed by a retired judge of the higher judiciary to decide defection cases swiftly and impartially.

Graded Response Action Plan

Approved by the Supreme Court in 2016, the plan was formulated after several meetings that the Environment Pollution (Prevention and Control) Authority (EPCA) held with state government representatives and experts. The result was a plan that institutionalised measures to be taken when air quality deteriorates.

Graded Response Action Plan:

- o The action plan which was formulated in 2016 and notified in 2017 for Delhi and the National Capital Region (NCR).

- o The plan was formulated after several meetings were held by Environment Pollution (Prevention and Control) Authority (EPCA) with state government representatives and experts.

- o These are institutionalized measures to be taken when air quality deteriorates, hence works only as an emergency measure.

o GRAP includes the measures which will be taken by different government agencies to prevent worsening of Air Quality of Delhi-NCR and prevent PM10 and PM2.5 levels to go beyond the 'moderate' national Air Quality Index (AQI) category.

o If air quality reaches the severe+ stage, GRAP talks about shutting down schools and implementing the odd-even road-space rationing scheme.

o The plan requires action and coordination among 13 different agencies in Delhi, Uttar Pradesh, Haryana and Rajasthan (NCR areas)

<p align="center">**'Maharatna' status**</p>

The government has accorded the 'Maharatna' status to state-owned Power Finance Corporation (PFC).

The move will pave the way for the company's greater financial and operational efficiency.

What is Maharatna, Navratna and Miniratna status?

Under Articles of Association, the board of directors of Central Public Sector Enterprises (CPSEs) enjoys autonomy in respect of recruitment, promotion and other service conditions of below board level employees.

The board of directors of a CPSE exercises delegated powers subject to broad policy guidelines issued by the government from time to time.

The government has granted enhanced powers to the Boards of the profit-making enterprises under various schemes like Maharatna, Navratna and Miniratna.

Maharatna scheme

• The main objective of the Maharatna scheme which was introduced in 2010 is to empower mega CPSEs to expand their operations and emerge as global giants.

• Maharatna CPSEs compared to others are given greater autonomy for flexibility in respect of capital expenditure, formation of strategic alliance, formulation of HR policies etc.

• The Board of a 'Maharatna' CPSE can make equity investments to undertake financial joint ventures and wholly-owned subsidiaries and undertake mergers

and acquisitions in India and abroad, subject to a ceiling of 15 per cent of the networth of the concerned CPSE, limited to Rs 5,000 crore in one project.

• The board can also structure and implement schemes relating to personnel and human resource management and training. They can also enter into technology joint ventures or other strategic alliances.

Eligibility criteria for grant of Maharatna status

The CPSEs meeting the following eligibility criteria are considered for Maharatna status:

a) Having Navratna status.

b) Listed on Indian stock exchange with minimum prescribed public shareholding under SEBI regulations.

c) An average annual turnover of more than Rs 25,000 crore during the last three years.

d) An average annual net worth of more than Rs 15,000 crore during the last three years.

e) An average annual net profit after tax of more than Rs 5,000 crore during the last three years.

f) Should have significant global presence/international operations.

The Maharatna CPSEs are:

1) Bharat Heavy Electricals Limited

2) Bharat Petroleum Corporation Limited

3) Coal India Limited

4) GAIL India Limited

5) Hindustan Petroleum Corporation Limited

6) Indian Oil Corporation Limited

7) NTPC Limited

8) Oil & Natural Gas Corporation Limited

9) Power Grid Corporation of India Limited

10) Steel Authority of India Limited

11) Power Finance Corporation Limited (PFC).

Gati Shakti

Gati Shakti — a digital platform — will bring 16 Ministries including Railways and Roadways together for integrated planning and coordinated implementation of infrastructure connectivity projects.

Significance

Infrastructure creation in India had suffered for decades from multiple issues. There was lack of coordination between different Departments, for example, once a road was constructed, other agencies dug up the constructed road again for activities like laying of underground cables, gas pipelines etc. This not only caused great inconvenience but was also a wasteful expenditure. To address this, efforts were put in place to increase coordination so that all cables, pipelines etc. could be laid simultaneously. Steps have also been taken to address other issues like time-taking approval process, multiplicity of regulatory clearances etc. In the last seven years, the Government has ensured unprecedented focus on infrastructure through a holistic outlook.

PM GatiShakti will address the past issues through institutionalizing holistic planning for stakeholders for major infrastructure projects. Instead of planning & designing separately in silos, the projects will be designed and executed with a common vision. It will incorporate the infrastructure schemes of various Ministries and State Governments like Bharatmala, Sagarmala, inland waterways, dry/land ports, UDAN etc. Economic Zones like textile clusters, pharmaceutical clusters, defence corridors, electronic parks, industrial corridors, fishing clusters, agri zones will be covered to improve connectivity & make Indian businesses more competitive. It will also leverage technology extensively including spatial planning tools with ISRO imagery developed by BiSAG-N (Bhaskaracharya National Institute for Space Applications and Geoinformatics).

PM GatiShakti is based on six pillars:

1. Comprehensiveness: It will include all the existing and planned initiatives of various Ministries and Departments with one centralized portal. Each and every Department will now have visibility of each other's activities providing critical data while planning & execution of projects in a comprehensive manner.

2. Prioritization: Through this, different Departments will be able to prioritize their projects through cross–sectoral interactions.

3. Optimization: The National Master Plan will assist different ministries in planning for projects after identification of critical gaps. For the transportation of the goods from one place to another, the plan will help in selecting the most optimum route in terms of time and cost.

4. Synchronization: Individual Ministries and Departments often work in silos. There is lack of coordination in planning and implementation of the project resulting in delays. PM GatiShakti will help in synchronizing the activities of each department, as well as of different layers of governance, in a holistic manner by ensuring coordination of work between them.

5. Analytical: The plan will provide the entire data at one place with GIS based spatial planning and analytical tools having 200+ layers, enabling better visibility to the executing agency.

6. Dynamic: All Ministries and Departments will now be able to visualize, review and monitor the progress of cross-sectoral projects, through the GIS platform, as the satellite imagery will give on-ground progress periodically and progress of the projects will be updated on a regular basis on the portal. It will help in identifying the vital interventions for enhancing and updating the master plan.

The multi-modal connectivity will provide integrated and seamless connectivity for movement of people, goods and services from one mode of transport to another. It will facilitate the last mile connectivity of infrastructure and also reduce travel time for people.

PM GatiShakti will provide the public and business community information regarding the upcoming connectivity projects, other business hubs, industrial areas and surrounding environment. This will enable the investors to plan their businesses at suitable locations leading to enhanced synergies. It will create multiple employment opportunities and give a boost to the economy. It will improve the global competitiveness of local products by cutting down the logistics costs and improving the supply chains, and also ensure proper linkages for local industry & consumers.

Ethanol blending Program

Start with The government of India has advanced the target for 20 per cent ethanol blending in petrol (also called E20) to 2025 from 2030. E20 will be rolled out from April 2023. In 2018 National policy on biofuels also suggested the same

what is ethanol blending

Ethanol is an agro-based product, mainly produced from a by-product of the sugar industry, namely molasses. Ethanol can be mixed with gasoline to form different blends. As the ethanol molecule contains oxygen, it allows the engine to more completely combust the fuel.

Significance of the program

➢ Energy security (Spice jet)

➢ Impact on emissions (carbon monoxide)

➢ Benefit for sugar industry (arrears for sugarcane farmer)

➢ Foreign Exchange reserve

Conclusion:

Based on the above information it the program will benefit to the government , farmers and environment and connect with SDG goals

One Sun One World One Grid (OSOWOG) Declaration

The One Sun One World One Grid Declaration (OSOWOG) was jointly released by Prime Minister Narendra Modi and UK Prime Minister Boris Johnson at the COP26 Climate Meet in Glasgow.

Realising the vision of OSOWOG through interconnected green grids can be transformational, enabling all nations to meet the targets of the Paris Agreement to prevent dangerous climate change, the declaration said. These efforts can stimulate green investments and create millions of good jobs. By sharing the sun's energy, one can help to build a more peaceful and prosperous world

What is its objective?

While the sun is the source of all energy and solar energy is totally clean and sustainable, it is available only during the day time and is dependent on the weather.

OSOWOG is the solution to this challenge. Its objective is to aid in developing a worldwide grid through which clean energy can be transmitted anywhere, anytime (use power at night in one part of the world from solar energy generated on other side of the world where it is day time). It also aims to help in reducing storage needs and enhancing the viability of solar projects. Its ultimate goal is to reduce carbon footprints and energy costs.

Who are behind it?

In first assembly of the International Solar Alliance (ISA), in October 2018, Prime Minister Narendra Modi floated the idea of the OSOWOG initiative. The UK and India decided to merge the UK's Green Grids Initiative (GGI) and ISA's OSOWOG into GGI-OSOWOG as part of the UK-India Virtual Summit earlier this year. The ISA is an inter-governmental organisation formed by India and France, comprising 101 members, to accelerate the global adoption of solar power. As many as 83 ISA member countries have endorsed the One Sun initiative. The ISA and the World Bank are also helping in executing the project.

How will it be implemented?

OSOWOG is divided into three main phases.

- In the first phase, the Indian grid would be connected to the grids of Middle East, South Asia and South-East Asia to develop a common grid. This grid would then be used to share solar energy as per need, in addition to other renewable energy sources.
- The second phase would connect the functional first phase to the pool of renewable resources in Africa.
- The third phase would look at achieving true global interconnection. The idea will be to integrate as many countries as possible to create a single power grid of renewable energy. This can then be accessed by all countries.

How will it help the world become more sustainable?

All participants in the initiative will focus on attracting effective investments in renewable energy sources by utilising technology, finance and skill. When all stakeholders coordinate, it is expected to bring down project cost, lead to higher efficiencies and increased asset utilisation for all involved.

The initiative may have a spill over effect, as the cost effective source of energy production could be used in other areas such as poverty alleviation, provision of drinking water, sanitation facilities and food security. Global collaboration will bring in increased investment into research and development.

What are the challenges expected in its implementation ?

One of the big challenges for implementation will be maintaining a stable grid over a large geographical area. Electricity Grid is vulnerable to accidents, weather, and cyber-attacks that are prone to increase and disrupt the electricity supply on mass scale. The mechanism of cost-sharing will also be challenging as participating countries are both rich and poor nations.

First-ever malaria vaccine for children

On October 6, the World Health Organization made a historic announcement, endorsing the first-ever malaria vaccine, RTS,S, among children in sub-Saharan Africa, and in other regions with moderate-to-high Plasmodium falciparum malaria transmission.

Why is this significant?

Malaria is a life-threatening disease caused by micro-organisms that belong to the genus Plasmodium, and is transmitted by infected female Anopheles mosquitoes. In 2019, according to the WHO, there were an estimated 229 million cases of malaria, and the estimated deaths were 4,09,000. About 67% of the deaths were among children aged under five, the group most vulnerable to malaria. Furthermore, 94% of the cases and deaths due to malaria occurred in the WHO African region, a disproportionately high share of the burden. But the WHO says its regions of Southeast Asia, eastern Mediterranean, western Pacific, and the Americas are also at risk. While research for a vaccine and therapeutics for malaria had been on for nearly half-a-century, success has been elusive until recently. While preventive and treatment interventions have continued (bed nets and indoor residual insecticide spraying) over the years, it was clear that the best tool against the constantly mutating pathogen would not emerge until an effective vaccine was at hand.

Will India use it too?

Malaria is a major public health problem in India, endemic to many States, and involves multiple Plasmodium species, including P. falciparum,

India will therefore benefit from the vaccine, and Bharat Biotech has entered into a partnership with GSK for technology transfer and production. This vaccine is likely to be ready for use in India, in a couple of years, as per reports.

Astro 'robot

In october Amazon announced many new products including a "home robot" named Astro. The robot has cartoony-eyes on a tablet-like touchscreen and comes equipped with a periscope camera and microphone, and can autonomously navigate your house to keep a tab on security or follow you around while you're on a video call.

What is Astro?

Astro weighs about 20 pounds and is two feet tall, essentially a robot dog on wheels. Astro also happens to be the name of the non-robotic dog in The Jetsons. The robot is designed to move around the home and keep a check on pets, and detect something unusual in the absence of the owner. It comes with a "periscope" camera that pops up from its head and can be used to keep an eye on your home. Astro is basically a combination of the Echo Show and sophisticated Ring security camera integrated into one single device. The device captures live videos, recognises faces, plays music or videos, and delivers a beer across the home. It's an innovative product that takes advantage of Amazon's expertise in artificial intelligence and uses cameras and sensors to see and follow you around the home.

Robotics

Robotics is a branch of engineering that involves the conception, design, manufacture and operation of robots. Robot is any automatically operated machine that replaces human effort. The objective of the robotics field is to create intelligent machines that can assist humans in a variety of ways.

disadvantages:

- In many situations robots can increase productivity, efficiency, quality and consistency of products.

- Robots can work in environments which are unsafe for humans as they don't have the same environmental requirements that humans do – such as lighting, air conditioning or noise protection.

- Robots have some sensors/actuators which are more capable than humans.

  - Unlike humans, robots don't get bored. Until they wear out, they can do the same thing again and again.

  - They can be very accurate – to fractions of an inch (as is needed for example in manufacturing of microelectronics).

Disadvantages:

- The use of robots can create economic problems if they replace human jobs.

- Robots can only do what they are told to do – they can't improvise

- This means that safety procedures are needed to protect humans and other robots.

- Although robots can be superior to humans in some ways, they are less dexterous than humans.

- Robotics lack emotional intelligence, which plays a critical role in intense situations.

- Often robots are very costly – in terms of the initial cost, maintenance, the need for extra components and the need to be programmed to do the task.

- Surveillance concerns pose a problem of entering a privacy nightmare.

Kunming Declaration On Biodiversity

More than 100 countries on the 13th of October 2021 pledged to make the protection of habitats an integral part of their respective government's policies. The delegations from these countries were attending the United Nations Biodiversity Conference in the Chinese city of Kunming.

- It calls upon the parties to "mainstream" biodiversity protection in decision-making and recognise the importance of conservation in protecting human health.

- By adopting this, the nations have committed themselves to support the development, adoption and implementation of an effective post-2020 implementation plan, capacity building action plan for the Cartagena Protocol on biosafety.

- The theme of the declaration is Ecological Civilization: Building a Shared Future for All Life on Earth.

- Signatory nations will ensure that the post-pandemic recovery policies, programmes and plans contribute to the conservation and sustainable use of biodiversity, promoting sustainable and inclusive development.

Nobel Prizes - 2021

Nobel Prizes 2021		
Field	**Recipient**	**Contributions**
Chemistry	Benjamin List and David W.C. MacMillan	Finding an easier and environmentally cleaner way to build molecules that can be used to make compounds, including medicines and pesticides (organocatalysis).
Physics	Syukuro Manabe, Klaus Hasselmann and Giorgio Parisi	Understanding of complex physical systems.
Medicine	David Julius and Ardem Patapoutian	For their work in the field of somatosensation, that is the ability

		of specialised organs such as eyes, ears and skin to see, hear and feel.
Peace Prize	Maria Ressa and Dmitry Muratov	For their efforts to safeguard freedom of expression, which is a precondition for democracy and lasting peace.
Literature	Abdulrazak Gurnah	For his uncompromising and compassionate penetration of the effects of colonialism and the fate of the refugee in the gulf between cultures and continents.
Economics	David Card, Joshua Angrist and Guido Imbens	Research on wages, jobs

60-point action plan

The Centre has prepared a comprehensive 60-point action plan

Key-points

Leveraging IT and Technology for Governance:

- There are several actionable inputs for the Ministry of Electronics and Information Technology from streamlining the disbursement of scholarships to bridging the digital divide for underprivileged students by developing indigenous tablets and laptops.

- Digitizing all land records by 2023 under the central database called 'Matribhumi.' Integration with the e-Courts system will provide transparency on title/possession-related issues.

- Citizenship can be linked to birth certificates using technology and focus.

Improving Business Climate:

  o It includes the complete abolition of certain permits, reducing the cost of starting a business in 10 sectors and bringing it in line with Vietnam and Indonesia, automatic permitting information, and one-point access to all government services.

  o Incentives for timely land acquisition and forestry approval, a comprehensive Environment Management Act that makes for a variety of laws in the field.

  o An advisory platform for start-ups and skills programs in emerging sectors.

  o It uses the Geographic Information System (GIS) decision-making map to increase the country's GDP (Gross Domestic Product).

  o Aiming to find jobs while negotiating trade measures.

Upgrading the Civil Services

  o Capacity building (Mission Karamyogi) - training of officers on various aspects of infrastructure in both the Centre and states, infusion of expertise, and exposure to latest technologies for higher civil services.

  o Performance-oriented, clear, and targeted performance of Ministers and departments as is the case in the public sector, the mechanisms for dealing with countries with their limited jurisdiction, and the restructuring of departments through Government Technology Reconstruction (GPR) every ten years.

- GPR is designed to address the 'problems' or 'needs' of an organization or its customers to improve the overall quality of services.

- More Appointments of Chief Information Officers (CIOs) and Chief Technology Officers (CTOs) as data can be used effectively. All government information must be made accessible to all sectors.

Pegasus spyware

Recently, it has been reported that Pegasus, the malicious software, has allegedly been used to secretly monitor and spy on an extensive host of public figures in India.

How does Pegasus come into your phone?

The code is transmitted by calling the target phone on WhatsApp. The code enters the phone even if the call is not answered. According to some reports, the log of that call gets erased. According to The Citizen's Lab of the University of Toronto, which worked with WhatsApp on identifying spyware victims, this is only one of the ways of delivering Pegasus. It notes several other cases such as alarming SMSs that prompt targets to click on a link

Types of Cyber Attacks

Malware: It is short for malicious software, refers to any kind of software that is designed to cause damage to a single computer, server, or computer network. Ransomware, Spy ware, Worms, viruses, and Trojans are all varieties of malware.

Phishing: It is the method of trying to gather personal information using deceptive e-mails and websites.

Denial of Service attacks: A Denial-of-Service (DoS) attack is an attack meant to shut down a machine or network, making it inaccessible to its intended users. DoS attacks accomplish this by flooding the target with traffic, or sending it information that triggers a crash.

Man-in-the-middle (MitM) attacks: Also known as eavesdropping attacks, occur when attackers insert themselves into a two-party transaction. Once the attackers interrupt the traffic, they can filter and steal data.

SQL Injection: SQL stands for **Structured Query Language**, a programming language used to communicate with databases.Many of the servers that store critical data for websites and services use SQL to manage the data in their databases.

Cross-Site Scripting (XSS): Similar to an SQL injection attack, this attack also involves injecting malicious code into a website, but in this case the website itself is not being attacked. Instead the malicious code the attacker has injected, only runs in the user's browser when they visit the attacked website, and it goes after the visitor directly, not the website.

Social Engineering: It is an attack that relies on human interaction to trick users into breaking security procedures in order to gain sensitive information that is typically protected.

Recent Steps Taken in India:

- **Cyber Surakshit Bharat Initiative:** It was launched in 2018 with an aim to spread awareness about cybercrime and building capacity for safety measures for Chief Information Security Officers (CISOs) and frontline IT staff across all government departments.

- **National Cyber security Coordination Centre (NCCC):** In 2017, the NCCC was developed to scan internet traffic and communication metadata (which are little snippets of information hidden inside each communication) coming into the country to detect real-time cyber threats.

- **Cyber Swachhta Kendra:** In 2017, this platform was introduced for internet users to clean their computers and devices by wiping out viruses and malware.

- **Indian Cyber Crime Coordination Centre (I4C):** I4C was recently inaugurated by the government.

  - National Cyber Crime Reporting Portal has also been launched pan India.

- **Computer Emergency Response Team - India (CERT-IN):** It is the nodal agency which deals with cybersecurity threats like hacking and phishing.

- **Legislation:**

  - Information Technology Act, 2000.

- Personal Data Protection Bill, 2019.

NIPUN Bharat Mission

Union Minister for Education, Shri Ramesh Pokhriyal 'Nishank' today virtually launched a National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat), for ensuring that every child in the country necessarily attains foundational literacy and numeracy by the end of Grade 3, by 2026-27.

Goals and objectives of NIPUN Bharat Mission:

- Foundational skills enable to keep children in class thereby reducing the dropouts and improve transition rate from primary to upper primary and secondary stages.

- Activity based learning and conducive learning environment will improve quality of education.

- Innovative pedagogies such as toy-based and experiential learning will be used in classroom transaction thereby making learning a joyful and engaging activity.

- Intensive capacity building of teachers will make them empowered and provide greater autonomy for choosing the pedagogy.

- Holistic development of the child by focusing on different domains of development like physical and motor development, socio-emotional development, literacy and numeracy development, cognitive development, life skills etc. which are interrelated and interdependent, which will be reflected in a Holistic Progress Card.

- Children to achieve steeper learning trajectory which may have positive impacts on later life outcomes and employment.

- Since almost every child attends early grades, therefore, focus at that stage will also benefit the socio-economic disadvantageous group thus ensuring access to equitable and inclusive quality education.

Thus, NIPUN Bharat is envisaged to support and encourage students, along with their schools, teachers, parents, and communities, in every way possible, to helprealise the true potential of our children and propel the country to new heights.

The success of NIPUN Bharat will primarily depend on teachers, so, there will be a special emphasis on capacity building of teachers. A special package for foundational literacy and Numeracy under NISHTHA is being developed by NCERT and around 25 lakh teachers teaching at pre-primary to primary grade will be trained this year

<p align="center">**Ayushman Bharat Health Infrastructure Mission.**</p>

Prime Minister Shri Narendra Modi launched PM Ayushman Bharat Health Infrastructure Mission.The aim is to strengthen the critical healthcare network from village to block to the district to the regional and national level in the next 4-5 years.

It has been launched by the government with an aim to move towards a provision of universal healthcare in the country. Quality healthcare is the one which is affordable and inclusive. It holds the providers accountable for cost and quality and it translates into a reduction in disease burden. Ayushman Bharat adopts a two-pronged approach:

- Firstly, the creation of health and wellness centres to bring health care closer to homes.
- Secondly, the formulation of a Pradhan Mantri Jan Arogya Yojana (PMJAY) to protect poor and vulnerable families against financial risk arising out of catastrophic health episodes.

Challenges

- Upgrading wellness centres and broadening the scope of services they offer will be a big task. It starts with fixing infrastructure problems that range from lack of power to inadequate equipment.
- The inadequate functionality of this infrastructure and the fact that it's concentrated in the metropolis is another major challenge in the implementation of this part of the scheme.
- There is no clarity on the funding for this project. Most of the centres suffer from the manpower shortages often making do with less than half the trained personnel they need.

Pradhan Mantri Jan Arogya Yojana (PMJAY)

- PMJAY offers a sum insured of 5 lakh per family for secondary care (which doesn't involve a super specialist) as well as tertiary care (which does). For the beneficiaries, this is a free scheme.
- It is an entitlement-based scheme that targets the beneficiaries as identified by latest Socio-Economic Caste Census (SECC) data.
- Individuals can walk into any empanelled hospital that can process cashless payments.
- Once identified by the database, the beneficiary is considered insured.
- The insurance cost is shared by the centre and the state mostly in the ratio of 60:40.
- Empanelled hospitals agree to the packaged rates under PMJAY—there are about 1,400 packaged rates for various medical procedures under the scheme.

Benefits of PMJAY

- The PM-JAY is one significant step towards the achievement of Universal Health Coverage (UHC) and Sustainable Development Goal - 3 (Good Health And Well-Being).
- PMJAY is portable, which means the beneficiary can avail treatment in any of the states that have implemented the scheme.
- It will leverage capacities available in both public and private sector hospitals, while providing standardised high-quality care, with strong fraud protection mechanisms.
- It can ensure improved access and affordability, of quality secondary and tertiary care services through a combination of public hospitals and well measured strategic purchasing of services in health care deficit areas, from private care providers, especially the not-for profit providers.
- It can significantly reduces out of pocket expenditure for hospitalization.
- It will align the growth of private sector with public health goals.
- It will strengthen public health care systems through infusion of insurance revenues.
- It will enable creation of new health infrastructure in rural, remote and under-served areas.
- It will help India capitalize its demographic dividend, ensure enhanced productivity, well-being and avert wage loss and impoverishment.

- The scheme will also enrich the database of hospitals registered with the Registry of Hospitals in Network of Insurance (ROHINI) System and the human capital captured under the National Health Resource Repository (NHRR) project.

Moreover, the scheme will have a multiplier effect on hospitals and allied sectors like pharmaceuticals, medical devices and diagnostics. Companies will be encouraged to invest more, and this will create jobs.

Mahatma Gandhi National Rural Employment Guarantee Act

MGNREGA is the largest social security scheme in the world — guaranteeing 100 days of unskilled manual work to all rural households in India. Last year, about 235 crore person-days of work were generated under the scheme. The MGNREG Act actually gives rural households the right to work — making it obligatory for the State to give them work on demand. Household could actually sue them for not doing so — at least on paper. The work is usually on projects to build durable assets like roads, canals, ponds and wells. In reality, there are quite a lot of rules on how the money may be spent. The Act stipulates a minimum wage-material ratio of 60:40. The average wage per day per person in 2016-17 was ₹161.

Why is it important?

One in four persons lives below the poverty line in rural India. Ever since the launch of this scheme in 2006, it has changed the nature of the rural labour market. It gave an opportunity to rural households to earn minimum income by getting job cards under this scheme. There are 12 crore job cards as of today. While the poor have used it to climb out of poverty, the not-so-poor used it as a measure to supplement their income by working during lean agriculture periods.

Moreover, the scheme is inclusive — with higher participation of women and SC and ST individuals. Today, about one in two jobs created under the scheme is for women and about 40 per cent for SC/ST. For many women, it is a first-time earning opportunity as well as a chance at empowerment. Interestingly, the scheme has indirectly enabled households to get freed from the clutches of local money lenders too. Payments under the scheme today are mostly by way of direct transfer into beneficiary accounts — which in turn forced people to open 10 crore new bank or post office accounts. The newly opened accounts have aided access to bank credit.

Some studies even point to improved education for children in MGNREGA households.

The role of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) as a lifeline for the working poor in rural India has been proved once again with the experience of the lockdown.

The scheme forces the Government to offer work, but so far does not measure productivity or durability of the work done. One of the complaints is about the slow pace of work. While there is incentive for workers to turn out as much as is needed to earn the wage rate, there is no incentive to expedite it, or finish the task on time.

Chief Minister's Economic Advisory Council'

The Tamil Nadu government constituted economic advisory council comprising Nobel laureate Esther Duflo of the Massachusetts Institute of Technology (MIT), USA, and former Reserve Bank of India governor Raghuram Rajan, to advise the chief minister.

Significance of the Committee

The Tamil Nadu Economic Advisory Council is a much-needed organisation that bridges economic expertise with policy action and political goals. In a line, this is the expression of intellectual centrifugal forces functioning within the unique aspirations of subnational entities and the confines of a centripetal force operating from New Delhi. These two forces need to bring synergies of economic equilibrium that, while powering the state strengthen the Union; the part supporting the whole; the whole the part. The creation of the Council is excellent news and a great start for three reasons.

conceptual: It allows economic superstructures to express themselves on a wide range of issues that go beyond the economy. All other distractions aside, the economy is the base that powers everything else, particularly welfare schemes—no wealth, no welfare. But the model of leaning on the Union government expertise for all matters economic, while dancing to the tune of freebee politics at the time of elections, will at some point break down. It is imperative for state governments to stand on their own feet, and deepen and widen their economic stride. Almost all sectors, from

agriculture to manufacturing, sensitive domains from land to health, and on-ground regulation from technology to resources, reside with states. Infusing efficiencies into them is the responsibility of state governments and the Council in Tamil Nadu is a good start.

Structural:

It opens the revolving door of experts within states. The Union government routinely invites experts and resides them within the North Block—the office of the Chief Economic Adviser, the Governor of the Reserve Bank of India, and the chairmen of regulatory bodies around securities, insurance and pensions have had outsiders coming in. During the decade when the United Progressive Alliance governed, the institution of National Advisory Council was set up to advise the Prime Minister, largely on matters of welfare. Encouraging the best minds in varied domains to infuse knowledge and experience into governance is a good step. Here, the state governments will need to be careful about two things. One, some experts come with the swagger of attitude and the bluster of 'free speech' without the related responsibilities, accountabilities or constraints. And two, they are often unable to negotiate entrenched bureaucracies. The government needs to handhold them on the latter and warn them on the former, possibly with non-disclosure agreements.

Geographical:

The proliferation of global talent outside New Delhi's North Block. Thus far, all talent has been absorbed by and attracted to Raisina Hill. State governments have played second fiddle and, at best, competed against other states for investments or markets—not for talent. Now that the states themselves are gaining scale and complexity, this expertise needs to trickle down. The Tamil Nadu Economic Advisor Council is a step in that direction. At worse, the Council will challenge the status quo and question extant policies and structures. At best, it could offer an argument for high growth or, as in this case, push for extreme welfare that leads to high inflation, hurting the poor. The truth and final execution will lie somewhere in between, depending on the receptivity and proclivity of the state government to heed or ignore their advice.

State governments will need new ideas, implant new efficiencies and express them through new institutions in order to get there. Other states must follow the Tamil

Nadu model. And the Union government must pull out learnings from this rising aggregate.

Appointment of archakas in Tamilnadu

The Madras High Court has said appointments made to recruit archakas will be subject to the final order on the petitions challenging the appointments to be made by the HR&CE Department.

Background

The trained archakas have been waiting for government postings at temples that are governed by the Agamas since 2008 when they finished training at the Archaka training school in Tiruvannamalai.

Entangled in legal battles

The issue of appointing of non-Brahmin *archakas* in Vedic temples has been mired in legal controversies ever since the social reformer 'Periyar' E.V. Ramasamy declared in 1971 that he would enter a sanctum sanctorum with people from all castes. He refrained from doing so it at the request of Karunanidhi, who was the Chief Minister then.

Karunanidhi later amended the the Tamil Nadu Hindu Religious and Charitable and Endowments Act, 1959, abolishing hereditary appointments. Aggrieved parties moved the Supreme Court challenging the amendments.

Crucial verdict

On March 14, 1972, the apex court's five-member Constitution Bench comprising Chief Justice S.M. Sikri and Justices A.N. Grover, A.N. Ray, D.G. Palekar and M.H. Beg, gave an ambiguous verdict in *Seshammal and Ors vs State of Tamil Nadu*. The bench, while upholding the amendments as 'secular', ruled that the appointment of priests should be made as per the *agama* norms of the respective temples.

A case from Kerala

In 2002, in N. Adithayan vs The Travancore Devaswom Board and Others, a case on the same issue, came up before the Supreme Court's two-member bench of Justices S. Rajendra Babu and Doraiswamy Raju.

The two-member bench, in its verdict on October 3, 2002, observed that "any custom or usage irrespective of even any proof of their existence in pre-constitutional days could not be countenanced as a source of law to claim any rights when it was found to violate human rights, dignity, social equality and the specific mandate of the Constitution and law made by Parliament".

Second attempt

In 2006, when a DMK-led coalition won the 2006 Tamil Nadu Assembly and Karunanidhi became Chief Minister once again, he decided to fulfil Periyar's cherished ambition of eliminating caste discrimination in temples by passing a Special Government Order (G.O.) no. 118, dated May 23, 2006, decreeing that any person with "requisite qualification and training" irrespective of caste and creed, was eligible to be appointed as an *archaka*.

He followed it up by announcing a training programme and establishing Veda patasalas, in the Kerala model, which imparted professional training in Saivite and Vaishnavite *agamas* and rituals to aspirants from all castes.

However, the Adi Saiva Sivachariyars Welfare Association resurfaced after a gap of nearly eight decades and challenged the G.O. through a writ petition before the Supreme Court in 2006 (*Adi Saiva Sivachariyargal vs Govt of Tamil Nadu & Anr*).

In its verdict on December 16, 2015, a two-member bench of Justices Ranjan Gogoi and N.V. Ramana, said that "if the *agamas* in question do not proscribe any group of citizens from being appointed as archakas on the basis of caste or class, the sanctity of Article 17 or any other provision of Part III of the Constitution or even the Protection of Civil Rights Act, 1955 will not be violated".

Constitutional Validity

Article 25 ensures social welfare and reform while Article 26 ensures that a social denomination is free to manage its own affairs insofar as matters of religion are concerned, subject to public order, morality and health. Article 25(2)(a) regulates or restricts any economic, financial, political or other secular activity that may be associated with religious practice, thus implying that the state can make laws on it.

Communal G.O. 100 years | social Justice

The social justice movement in Tamil Nadu, which began with the 'Communal G.O.', issued 100 years ago Justice Party government, The government order, and the successive measures that it spawned over the decades, has proved to be a leveller, empowering non-Brahmins and securing the space due to them in administration and politics.

It all began with the Justice Party government of Raja of Panagal, which introduced caste based reservation in 1921. The first communal GO was passed by the Madras Presidency government. It provided for reservation of 44% jobs for non-brahmins, 16% for brahmins, 16% for muslims, 16% for Anglo-Indian and Christians and 8% for scheduled castes. Since then the reservation policy had been in operation in Tamil Nadu. These opportunities in government were to be shared among non-brahmins, brahmins, Hindus, Mohamadans, Indian Christians, AngloIndians, Europeans and others

Continued after Independence

After Independence Tamil Nadu, the first backward class commission headed by A M Sattanathan, submitted its report in 1970. Based on its recommendations the backward class (BC) reservation was enhanced to 31% from 25% and to 18 % from 16 % and this took the state's total reservation to 49%. Again pursuant to the order passed by the dated October 15, 1992, the second backward class commission was appointed. The commission's report led to the reservation for BCs being raised to 50%, taking TN's total reservation to 68%. Based on a Madras high court judgment in 1990, the state fixed 1% quota for scheduled tribes and this took TN's overall reservation to 69%

Champakam Dorairajan case

The Supreme Court of India in the case reported State of Madras vs Champakam Dorairajan (1951) rejected the contention based on the communal GO dated June 16, 1950, which laid down the rules for selection of candidates for admission into the medical colleges and held that the classification made in the communal GO is opposed to the Constitution. To override the decision of the Supreme Court, Clause 4 was introduced in Article 15 of the Constitution with the aim of making it constitutional for the state to reserve seats for BCs, Scheduled Caste (SC) and

Scheduled Tribes (ST) in educational institutions as well as to make other special provisions as may be necessary for their advancement.

Since the land reform legislation impinged upon the fundamental right to property of landlords, this proved to be the biggest obstacle in implementing reforms. To remove such an obstacle, Article 31(B) read with Ninth Schedule was incorporated under the provisions of the Constitution through the First Amendment Act, 1951.

In 1992, judgment of a nine-judge bench of the Supreme Court in what is known as the Mandal case (Indhra Sahani vs Union of India) held that total reservation under Article 16 (4) should not exceed 50%. Shortly after this judgment the Tamil Nadu government moved the Madras high court for continuing its present reservation policy as hitherto followed during the academic year 1993-94. The court ruled that the reservation policy could continue, but the quantum of reservation should be brought down to 50% during the next academic year i.e. 1994-95. In the special leave petition by the state, the Supreme Court passed an interim order reiterating that the reservation should not exceed 50% in the matter of admission to educational institutions.

Major legal problems erupted pursuant to the order passed by the Supreme Court that the state government cannot breach the 50% cap on reservation. By this time various political parties and social forums representing BCs requested the state to consider all the ramifications of the Supreme Court order.

Since the state did not get any reprieve, CM J Jayalalithaa began looking for alternate legal recourse. Since the policy needed a strong legislative support, it was clear that apart from bringing legislation in the state assembly, the bill needed Presidential assent for notifying the law under the proviso to Article 31(A), and thereafter the said law must be included in the Ninth Schedule.

Article 31(B) of the Constitution was incorporated under the provisions of the Constitution through the first amendment Act 1951 and once the proposed Tamilnadu act is included in the Ninth Schedule it could not be challenged. In a special session of the Tamil Nadu assembly held in 1993, it was unanimously resolved calling upon the Union government to take steps immediately to bring in suitable amendments to the Constitution so as to enable the state to continue its policy of 69% reservation

Tamil Nadu Export Promotion Strategy 2021

Launching the Export Promotion Strategy, the Tamil Nadu Government on Wednesday set an ambitious target of increasing its exports to $100 billion by 2030 from the current $26 billion by identifying 'six champion sectors' in the export sector.

The history of trade from Tamil Nadu has a bejeweled past dating back 3000 years. Emerging from maritime trade with Southeast Asia in 4th century BC, Tamil Nadu rose to its current pre-eminence primarily due to its coastline and connectivity with intercontinental trade hubs, positioning it as a hub for industry, trade and commerce for centuries. In an era driven by globalisation, the State has built on its historical prominence of mercantilism and the trade network has grown manifold and emerged as the third largest exporter in India for the last decade and presently contributes to 9% of India's exports to the world.

Tamilnadu is potential state

Tamil Nadu offers State-of-the-art infrastructure to support trade and commerce. The State has a highly advanced infrastructure and logistics ecosystem, catering to the exports. These include - seven passenger airports, including four international airports; over 25 seaports, including 4 large ports of India; over 6,800 km of rail track, a National Highway density of 38.7 km per 1,000 sq.km of area, and seven Inland Container Depots (ICDs). Presently, Tamil Nadu ranks first in the number of operational Special Economic Zones in the country.

The State boasts a diversified export basket in various sectors such as automobile and components, machinery and instruments, electronic hardware, software, readymade garments and accessories, yarns, fabrics, and leather products.

Besides manufactured goods, the State has demonstrated competence in traditional products exports such as handicrafts, handloom fabrics, and plantation products that contribute to the State's outbound shipments. In alignment with the Government of India initiative to develop Districts as Export Hubs, Tamil Nadu offers a multi-product potential to export from each district.

Export Champion Sectors

Becoming a key exporting region and sustaining that position, requires the State to be competitive in Champion Sectors and, particularly, in specific segments of these sectors, which have the highest growth potential globally. Hence, the Champion Sectors for export promotion have been identified based on parameters such as

production, employment, trade, competitiveness and investment. The shortlisted sectors are:

1. Textile & Apparel
2. Food Processing
3. Auto and Auto Components
4. Leather and Footwear
5. Electronics
6. Machinery

Kalaignarin Varumun Kappom health scheme

Under the scheme, medical camps would be organised in all the districts in the state and the people could get screened for various diseases in the camps.

The innovative Mobile scheme, launched for the first time in the country, would help pregnant women in rural areas to avail the assistance of the health visitors in case of emergency

Singara Chennai 2.0

The Greater Chennai Corporation has shortlisted 10 themes for the implementation of Singara Chennai 2.0, at an estimated cost of ₹300 crore, to make the city beautiful, sustainable and climate resilient.

Thooimai Chennai

- Bio-mining of legacy waste, converting retrieved lands as urban green spaces
- Modernisation of slaughterhouses, markets
- Scientific disposal of construction waste

Pasumai Chennai

- Tree planting across the city

Neermegu Chennai

- Water supply works
- Rejuvenation of waterways and water bodies

Ezhilmigu Chennai

- Restoration of heritage buildings, provision of facade lighting
- Beautification of junctions, underside of bridges
- Upgrading city infrastructure

- Provision of footpaths for disabled

Nalaimigu Chennai

- Provision of public/community toilets
- Improvements to maternal and child health facilities
- Providing facilities for outdoor sports, exercise
- Promoting non-motorised transport
- Underground sewage scheme in uncovered areas

Kalvimigu Chennai

- Improvement of school infrastructure
- Learning centres for school children
- Modern libraries