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DECEMBER 2021

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GENERAL STUDIES PAPER-II

Child Protection Services Scheme

Why in News
- The Ministry of Women and Child Development is implementing a centrally sponsored scheme namely *Child Protection Services (CPS) Scheme*.
- Under this scheme support is provided to States and UT Governments for delivering services for children in need and difficult circumstances.

Key Highlights
- *The Child Care Institutions (CCIs)* established under the CPS scheme support inter-alia age-appropriate education, access to vocational training, recreation, health care, counselling etc. and equally covers rural and urban children.
- *National Commission for Protection of Child Rights (NCPCR)*, an autonomous body under the aegis of Ministry of Women and Child Development, is entrusted with the mandate to ensure that all Laws, Policies, Programmes, and Administrative Mechanisms are in consonance with the Child Rights perspective as enshrined in the Constitution of India and also the UN Convention on the Rights of the Child.
  - *Budget allocation for NCPCR* for the year 2020-21 was Rs.1800.00 lakh and the funds released to States/UTs under CPS scheme for the year 2020-21 was Rs.70977.53 lakh.
- As per census 2011, there are 472 million children below the age of 18 years and comprise 39 percent of the total population.

Policy to Promote Women Empowerment

Context
- The principle of gender equality is enshrined within the Constitution of India which guarantees gender equality and empowers the State to formulate affirmative action in favour of women.

Government Initiatives to promote Women Empowerment
- The Government of India has taken various steps to ensure empowerment of women through their social, educational, economic and political uplifting through various schematic interventions.

Social Security Initiatives:
a. *Beti Bachao Beti Padhao (BBBP)*: Joint initiative of Ministry of Women and Child Development, Ministry of Health and Family Welfare and Ministry of Human Resource to ensure survival, protection and empowerment of the girl child.
   - Objectives of this initiative are:
     - ✓ Prevention of gender biased sex selective elimination
     - ✓ Ensuring survival & protection of the girl child
     - ✓ Ensuring education and participation of the girl child.
b. *National Social Assistance Programme (NSAP)*: It is a social security and welfare programme being administered by the Ministry of Rural Development. It was launched on 15th August, 1995.
   - It represents a significant step towards the fulfilment of the **Directive Principles in Article 41 and 42** of the Constitution recognizing the concurrent responsibility of the Central and the State Governments in the matter.
   - In particular, **Article 41 of the Constitution** of India directs the State to provide public assistance to its citizens in case of unemployment, old age, sickness and disablement and in other cases of undeserved want within the limit of its economic capacity and development.
c. *Pradhan Mantri Vyay Vandana Yojana (PMVVY):* It is retirement cum pension scheme announced by the Indian Government. The plan is subsidised by the government kunent and was launched in May 2017.
- **Objectives**
  - ✓ To protect elderly persons aged 60 years and above against a future fall in their interest income due to the uncertain market conditions.

- ✓ To provide social security during old age.
- ✓ It implemented through Life Insurance Corporation (LIC) of India.
- ✓ As per the scheme, on payment of an initial lump sum amount ranging from a minimum purchase price of Rs. 1, 50,000/- for a minimum pension of Rs 1000/- per month to a maximum purchase price of Rs. 7, 50,000/- for maximum pension of Rs. 5,000/- per month, subscribers will get an assured pension based on a guaranteed rate of return of 8% per annum, payable monthly.
- **d. *Scheme for Adolescent Girls (SAG):*** It was devised in 2010 as a special intervention for adolescent girls of the age group 11 – 14 years to break the intergenerational life-cycle of nutritional and gender disadvantage and offer a supportive environment for the self-development of adolescent girls in the country.

Education Related Initiatives

- **a. *Samagra Shiksha Scheme*** : An overarching programme for the school education sector extending from pre-school to class 12 has been, therefore, prepared with the broader goal of improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes.
  - o It subsumes the three erstwhile Schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE).
- **b. *Scheme of National Overseas Scholarship*** : The Central Sector Scheme of National Overseas Scholarship is to facilitate the low income students belonging to the Scheduled Castes, Denotified Nomadic and Semi-Nomadic Tribes, Landless Agricultural Labourers and Traditional Artisans category to obtain higher education viz., Master degree or Ph.D courses by studying abroad thereby improving their Economic and Social status.
- **c. *Swacch Vidyalaya Mission*:** It is the national campaign driving 'Clean India: Clean Schools'.
  - o A key feature of the campaign is to ensure that every school in India has a set of functioning and well maintained water, sanitation and hygiene facilities.
  - o It was ensured that all schools have at least one functional toilet for girls.

Other Initiatives

- **National Education Policy (NEP), 2020**: It prioritises gender equity and envisions ensuring equitable access to quality education to all students, with a special emphasis on Socially and Economically Disadvantaged Groups (SEDGs).
- **Various Training Institutes**: In order to enhance the employability of female workers, the Government is providing training to them through a network of Women Industrial Training Institutes, National Vocational Training Institutes and Regional Vocational Training Institutes.
- **Skill India Mission**: To ensure economic independence of women through skill development and vocational training, the Government has also introduced the mission.
- **The National Skill Development Policy:**It focuses on inclusive skill development, with the objective of increased women participation for better economic productivity.
- **Pradhan Mantri Kaushal Vikas Kendras**: It lay emphasis on creating additional infrastructure both for training and apprenticeship for women; flexible training delivery mechanisms, flexible afternoon batches on local need-based training to accommodate women; and ensuring safe and gender sensitive training environment, employment of women trainers, equity in remuneration, and complaint redressal mechanism.
- **Pradhan Mantri Ujjwala Yojna (PMUY):** It aims to safeguard the health of women by providing them with clean cooking fuel and also from drudgery of collecting firewood.
- **The Mahatma Gandhi National Rural Employment Guarantee Act, 2005 (MGNREGA)**: It mandates that at least one third of the jobs generated under the scheme should be given to women.
  - o Government has also made enabling provisions for allowing women's participation in non-conventional sectors such as fighter pilots in Indian Air Force, Commandos, Central Police Forces, admissions in Sainik Schools etc.
- **Stand Up India scheme** promotes entrepreneurship amongst women.

Safety Related Initiatives

The schemes/ projects include
- One Stop Centres (OSCs),
- Universalisation of Women Helplines (WHL),
- Mahila Police Volunteers (MPV),

- Emergency Response Support System (ERSS) which is a pan-India single number (112)/ mobile app based system for emergencies,
- Cyber-crime reporting portal to report obscene content and assistance to States/ UTs for strengthening cyber forensic capabilities,
- Safe city projects in 8 cities (Ahmedabad, Bengaluru, Chennai, Delhi, Hyderabad, Kolkata, Lucknow and Mumbai),
- Setting up of Fast Track Special Courts (FTSCs) for speedy disposal of cases of rape and cases under POCSO Act,
- In addition, the Government of India has decided to implement the Umbrella Scheme for Safety, Security and Empowerment of Women as an integrated women empowerment program under the name *'Mission Shakti'*, for addressing the issues of women on a life-cycle continuum basis and for making them equal partners in nation-building through convergence at different levels of governance and a participative approach.

Krishi UDAN 2.0
Background
- Krishi UDAN Scheme was launched in August 2020, on international and national routes to assist farmers in transporting agricultural products so that it improves their value realisation.
- The scope of the Krishi Udaan Scheme was expanded by including more districts/airports across the country with an aim to extend benefit to the farmers.
- The Krishi UDAN is ongoing Scheme and agriculture products have been transported from the various destinations in the country.
- Government has not sanctioned any budget for the Scheme so far.

About the Scheme
- Krishi UDAN 2.0 primarily focuses on transporting perishable food products from the hilly areas, north-eastern states and tribal areas.
- The scheme aims to ensure seamless, cost-effective, time-bound air transportation and associated logistics for all Agri-produce originating especially from Northeast, hilly and tribal regions of the country.
- The objectives are to increase the share of air in the modal mix for transportation of Agri-produce, which includes horticulture, fishery, livestock & processed products.
- To achieve better convergence on various components catering to the development of sustainable and resilient Agri-produce value chains across various schemes of the Central and State Governments and their associated agencies as well as the resources committed by the private sector to improve supply chain competitiveness by:
  a. Providing more air connectivity (national and international) between origin-destination airports aimed at bringing in improved logistics efficiency.
  b. Improving infrastructure and performance in processing of air cargo by all stakeholders, including Agri-produce, horticulture, fisheries, livestock products at airports and off-airport facilities, by regulatory participating governmental agencies (PGAs).
  c. Imparting special focus to air freight of organic and natural produce of NER, Tribal and Hilly Districts.
  d. Achieving better and timely mapping of Agri-produce production/ supply centres with domestic demand clusters and international markets in sync with the marketing strategies.
  e. Promoting adoption of plant and animal quarantine and other regulatory requirements (at airport) in the export supply chains end-to-end.
  f. Enabling paperless and contactless interface with all stakeholders through digitization and digitalization via integration with existing e-platforms and their creation as required.

Scheme for Protection and Preservation of Endangered Languages of India (SPPEL)
Context
- The policy of the Government is to promote all Indian Languages including endangered languages.
- The Government of India has initiated a Scheme known as "Scheme for Protection and Preservation of Endangered Languages of India" (SPPEL).

About the Scheme
- Under this Scheme, the *Central Institute of Indian Languages (CIIL)*, Mysore works on protection, preservation and documentation of all the mother tongues/languages of India spoken by less than 10,000 people which are called endangered languages.
- In the first phase of the scheme, 117 endangered languages/mother tongues have been chosen from all over India for study and documentation on a priority basis.

Key Points
- The *University Grants Commission (UGC)* has also initiated two schemes for protection of endangered languages, namely :
a. 'Funding Support to the State Universities for Study and Research in Indigenous and Endangered languages in India'.
b. 'Establishment of Centres for Endangered Languages in Central Universities'.

Funds Allocation
- An amount of Rs.45.89crores released by the UGC and CIIL under their schemes for protection of endangered Indian languages during the years 2015-16 to 2019-20.

Dam Safety Bill
Why in News
- The Rajya Sabha passed the Dam Safety Bill (2019), paving the way for enactment of the Dam Safety Act in the country. The Union Minister of Jal Shakti had introduced the bill in Rajya Sabha on 1st December, 2021.
- The Dam Safety Bill (2019) was passed by the Lok Sabha on 2ndAugust 2019.

Background
- After China and USA, India is the 3rd largest dam-owning nation in the world. There are around 5,700 large dams in the country, of which about 80% are already over 25 years old.
  o Nearly 227 dams that are over 100 years old are still functional.
- Although India's track record of dam safety is at par with that of the developed nations, there have been instances of unwarranted dam failures and of poor maintenance issues.

Key Highlights
- The Dam Safety Bill provides for adequate surveillance, inspection, operation, and maintenance of all the large dams in the country so as to prevent dam failure related disasters.
- The Bill provides for an institutional mechanism at both Central and State levels to address structural and non-structural measures required for ensuring the safe functioning of dams.

Provisions of the Bill
- A *National Committee on Dam Safety (NCDS)* will be constituted to help evolve uniform dam safety policies, protocols, and procedures.
- Establishment of a *National Dam Safety Authority (NDSA)* as a regulatory body for ensuring the nationwide implementation of dam safety policies and standards.

- At the State level, constitution of *State Committees on Dam Safety (SCDS)* and the establishment of the *State Dam Safety Organizations (SDSO)*.
- Ithas penal provisions, involving offences and penalties, for ensuring compliance of the provisions.
- It provides for regular inspection and hazard classification of dams.
- It provides for drawing up of emergency action plans and comprehensive dam safety reviews by an independent panel of experts.
- There is provision for an emergency flood warning system to address the safety concerns of downstream inhabitants.

Significance of the Bill

- The Bill addresses in a comprehensive manner, critical concerns related to dam safety on account of emerging climate change related challenges.
- This Bill looks at Dam Safety holistically and provides for not only structural aspects, but also operational and maintenance efficacy through prescription of strict O & M protocols.
- Definite timelines have been provided in the Bill for the establishment of a robust institutional framework, with the support of both the Centre and the States.
- The Bill also focuses on implementation of mandatory dam safety actions by the dam owners within a defined timeline.

Component Champion Incentive scheme
Why in News

- Government has recently initiated the *Production Linked Incentive (PLI) Scheme* for Automobile and Auto Components Industry in India for enhancing India's Manufacturing Capabilities for Advanced Automotive Products with a budgetary outlay of Rs.25,938crores over a period of five years.
- The Scheme has two components namely,
  - *Champion OEM Incentive Scheme*
  - *Component Champion Incentive Scheme.*

About the Component Champion Incentive Scheme

- The scheme is aimed at identifying and incentivizing Auto component champions that can achieve global scale of operations and become 'Automotive Champions' for the auto-component manufacturing sector related to Advanced Automotive Technology.
- The scheme is a 'sales value linked' scheme, applicable on preapproved Advanced Automotive Technology components of all vehicles, CKD/SKD kits, Vehicle aggregates of 2-Wheelers, 3-Wheelers, passenger vehicles, commercial vehicles and tractors including automobile meant for military use and any other Advanced Automotive Technology components prescribed by MHI depending upon technical developments.

About the Champion OEM Incentive Scheme

- The Champion OEM Incentive scheme is a 'sales value linked' scheme, applicable on Battery Electric Vehicles and Hydrogen Fuel Cell Vehicles of all segments and any other Advanced Automotive Technology vehicle prescribed by MHI depending upon technical developments.

Make-In-North-East Initiative
Why in News

- Under the Department for Promotion of Industry and Internal Trade, a dedicated Northeast Desk has been set up within Invest India, which supports the North East States in their outreach activities to the investors as well as in facilitating and handholding select companies.
- The desk is working closely with *One District One Product (ODOP)*, Start up and other sector desks of Invest India for their initiatives in the region.
- The *Invest Northeast Portal*, presenting investment opportunities in the region across sectors and States to both domestic and foreign investors, has also been developed.

About North East Industrial Development Scheme (NEIDS), 2017

- The North East Industrial Development Scheme (NEIDS), 2017 has come into force with effect from 01.04.2017 for a period of five years.
- The scheme covers manufacturing and service sector of all the States of North Eastern Region (NER), including Sikkim. Various benefits provided under the scheme include:
  a. Central Capital Investment Incentive for access to credit.
  b. Central Interest Incentive.
  c. Central Comprehensive Insurance Incentive.
  d. Income Tax Reimbursement.
  e. Goods and Services Tax Reimbursement.
  f. Employment Incentive
  g. Transport Incentive.

Collaboration with NITI Aayog

- In collaboration with the NITI Aayog, the 'NITI Forum for North East' constituted for accelerated, inclusive and sustainable development in the North East Region, has identified 5 focus sectors, viz. Tea, Tourism, Bamboo, Dairy and Pisciculture**.**

Initiatives taken by Govt. of IndiaSchemes for Promoting Tourism

- The Government has been providing special emphasis to the development and promotion of tourism in the North Eastern States. Under the *Swadesh Darshan Scheme* of the Ministry of Tourism, sixteen projects with themes of Heritage, Wildlife, Spiritual, Tribal, Eco-adventure etc. with total amount of Rs.1,337.63 crore have been sanctioned.
- Under the *Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive (PRASHAD) Scheme*, development of Kamakhya Devi Temple (Rs.29.99 crore) and Pilgrimage Facilitation at Nagaland (Rs.25.26 crore) and Meghalaya (Rs.29.31 crore) have been sanctioned.
- Further, Kaziranga National Park (Assam) has been identified under the *Iconic Site Development Scheme*.

Schemes for Infrastructural Development

- Ministry of Development of North Eastern Region (MDoNER), under its various schemes like *Non-Lapsable Central Pool of Resources (NLCPR)* and its successor *North East Special Infrastructure Development Scheme (NESIDS)*, *Schemes of North Eastern Council (NEC)* and *North East Road Sector Development Scheme (NERSDS)* has also taken steps to bridge the social and physical infrastructure gaps, which will promote investment in the North East Region.

Pan-India Schemes

- Various Pan-India Schemes are being implemented in the North Eastern States for their sustainable development, e.g., *Jal Jeevan Mission*, *Atal Mission for Rejuvenation and Urban Transformation*, *Swachh Bharat Mission*, etc.
- The NE Desk of Invest India under DPIIT has organized events like *National Handloom Day and Business Conclave*, in collaboration with Industry associations, to promote investment opportunities in the region.

Integrated Bamboo Project

Why in News

- An Integrated Bamboo Project' at Tamenglong, Manipur which is funded by North Eastern Council (NEC), Shillong is underway.
- The project comprises of the 'Cane and Bamboo nursery', 'Bamboo Treatment Plant' and the 'Common Facility Centre'(CFC) for cane and bamboo processing.

About North East Cane and Bamboo Development Council (NECBDC)

- *NECBDC (*erstwhile Cane and Bamboo technology Centre (CBTC)) is an ISO 9001:2008 certified organization.
- It was established in the year 2000 as an implementation unit for the project - Cane and Bamboo Technological Up-gradation and Networking Programme of *United Nations Development Programme (UNDP)* and implemented by *United Nations Industrial Development Organization (UNIDO)*.

- On conclusion of the project, it was registered as a Society, chaired by Secretary, NEC, with the Mission Directors of the State Bamboo Mission from the North Eastern States as members in the Governing Body.
- NECBDC is one of the designated *Bamboo Technical Support Group (BTSG)* under the *National Bamboo Mission (NBM)*, Department of Agriculture Cooperation & Farmers Welfare, Government of India since the inception of the *National Bamboo Mission* in 2006-07.
- NECBDC is located at the Bamboo Technology Park at Burnihat, Assam.

Convoke 2021-22

Context

- *NITI Aayog* in partnership with *Bharti Foundation*, the philanthropic arm of Bharti Enterprises, launched **Convoke 2021-22**.
- The event was chaired by Dr. Rajiv Kumar, Vice Chairman, NITI Aayog.

Brief Details

- Convoke is a National research Symposium which aims at addressing challenges in imparting education and strengthening its quality with special focus on all teachers, educationists, heads of schoolsacross India.
- Through this platform, School Teachers/ Heads/Principals of Government Schools and teachers from Bharti Foundation network will be encouraged to use research-based solutions through scientific approach, and showcase their efforts taken at the grass-root level in improving learning outcomes.
- Through Convoke they can now share their micro research papers.
  - These research papers will be analysed by a panel of Educationists.

Background

- The *National Education Policy (NEP) 2020* also recognises and identifies teachers and faculty as the heart of the learning process.
  - It recommends that teachers will be recognised for novel approaches to teaching that improve learning outcomes in their classrooms.
- NEP recommends to develop platforms so that teachers may share ideas and best practices for wider dissemination and replication.
- It envisions a comprehensive approach to transform the quality and quantity of research in India, which includes definitive shifts in school education to a more play and discovery-based style of learning with emphasis on the scientific method and critical thinking.

Expected Outcome

- CONVOKE is expected to become a platform which will be pan-India and it will become a movement towards improving learning outcomes through joyful teaching and learning.
  - It will immensely help in bridging the gap between academia, policy makers and practitioners in the education field.

- The findings from ground by the teachers on 'what works' will help policy makers to design policies which are responsive to the needs of the grassroots.
- It will also inform the academia of the challenges associated with improving learning outcomes and potential research areas where the teachers at grassroots could even be co-investigators
- It will promote the suggestions of the National Education Policy 2020 on recognizing novel approaches to teaching that improve learning outcomes in their classrooms.
- It will help in create a culture of using research-based pedagogy to improve learning outcomes in school education.

Saryu Nahar National Project

Why in News

- Prime Minister has recently inaugurated the *Saryu Nahar National Project* at *Balrampur, Uttar Pradesh.*

Background

- The work on the project started in 1978 but due to lack of continuity of budgetary support, interdepartmental coordination and adequate monitoring, it got delayed and was not completed even after nearly four decades.
- In 2016, the project was brought under *Pradhan Mantri Krishi Sinchayee Yojana* with the target to complete it in a time bound manner.
- In this endeavour, innovative solutions were found for new land acquisition to construct new canals and fill the critical gaps in the project, and also for resolving the pending litigation related to the previous land acquisitions.

About the Project

- The Saryu Nahar National Project has been built with a total cost of more than Rs.9800crore, out of which more than Rs.4600crore was provisioned in the last four years.
- The project also involves interlinking of five rivers -*Ghaghara, Saryu, Rapti, Banganga and Rohini* to ensure optimum usage of water resources of the region.

Benefits from the project

- The project will provide assured water for irrigation of over 14 lakh hectares of land and benefit about 29 lakh farmers of over 6200 villages.
- It will benefit nine districts of Eastern Uttar Pradesh namely - Bahraich, Shravasti, Balrampur, Gonda, Siddharthnagar, Basti, Sant Kabir Nagar, Gorakhpur and Maharajganj.
- The farmers of the region, who were the worst sufferers of the inordinate delay in the project, will now immensely benefit from the upgraded irrigation potential.
- They will now be able to grow crops on a larger scale and maximise the agri-potential of the region.

Lokpal-Online

Why in News

- Chairperson, Lokpal of India, Justice Pinaki Chandra Ghose inaugurated a digital Platform for Management of Complaints called *'LokpalOnline'*.
- It can be accessed by all citizens of the country and complaints can be filed from anywhere, anytime.

About Lokpal Online

- It is an end-to-end digital solution for the management of complaints against public servants filed under the Lokpal and Lokayuktas Act, 2013.
- It is a web-based facility, which will quicken the disposal of complaints in an accountable, transparent and efficient manner with benefits to all stakeholders.
- It facilitates handling of complaints during the complete lifecycle of the Complaint, right from its filing to the final disposal and this will bring more transparency and efficiency in the complaint handling mechanism.

Background

- *Smt. Justice Abhilasha Kumari*headed the committee to supervise the development of this software.

- The Portal provides a Dashboard for every Complainant, enabling him to view the status of his Complaints during its lifecycle.
- The Portal, hosted on NIC Cloud, has been developed on an Open Source Technology.
- Its security audit has been done by an agency empanelled by the CERT-In (Indian Computer Emergency Response Team), Ministry of Electronics and Information Technology.

Important features of this digital platform are following:
- Convenience to complainants for filing complaint online from anywhere anytime
- Information to the complainant about action on complaint at every stage through e-mails and SMS
- Facility to complainant to ascertain status of complaint at anytime
- Identity of the complaint is kept confidential
- The CVC, CBI and other inquiry agencies can upload their reports directly on 'Lokpal Online' platform.
- Reminders to inquiry agencies through e-mails and SMS
- Generation of analytical reports as per requirement.

About Lokpal
- The main aim of Lokpal is to free the country from the malady of corruption and to build a strong and corruption free India.
  o In March 2019, Justice Pinaki Chandra Ghose was appointed as India's first Lokpal and as a body, it is still growing and progressing.
  o Lokpal of India, has been established under the Lokpal and Lokayuktas Act, 2013 to inquire and investigate into allegations of corruption against public functionaries falling within the scope and ambit of this Act.
  o At present complaints sent by post, e-mail or delivered by hand are entertained by the Lokpal of India.

Treaty on Mutual Legal Assistance in Criminal Matters
Why in News
- The Union Cabinet has recently approved the *Treaty on Mutual Legal Assistance in Criminal Matters* between the Government of the Republic of India and the Republic of Poland with a view to enhance capability and effectiveness of both countries in investigation and prosecution of crimes, including crimes related to terrorism through mutual legal assistance.

Aim
- The Treaty aims to enhance effectiveness of both the countries in investigation and prosecution of crime, through cooperation and mutual legal assistance in criminal matters.

Benefits
- In the context of transnational crime and its linkages to terrorism, the proposed Treaty will provide a broad legal framework for bilateral cooperation with Poland in investigation and prosecution of crime as well as in tracing, restrain and confiscation of proceeds and instruments of crime as well as the funds meant to finance terrorist acts.
- It will increase effectiveness of India in tackling criminal activities involving Poland.
- Once in operation, the Treaty will be instrumental in gaining better inputs and insights in the modus operandi of organized criminals and terrorists.
- These in turn can be used to fine tune policy decisions in the field of internal security.

Important Facts
- After signing and ratification of the Treaty, suitable Gazette Notifications will be issued under the relevant provisions of Code of Criminal Procedure 1973 to give effect to the provisions of the Treaty in India.
- The Gazette notification is accessible to general public outside the Government domain and it will provide increased awareness and transparency on mutual cooperation between India and Poland in the field of mutual legal assistance in criminal matters.

Agri-Tech cohort under South-South Innovation platform

Context
- *Atal Innovation Mission (AIM)*, *NITI Aayog* and the *United Nations Capital Development Fund (UNCDF)* rolled out their first AgriTech Challenge cohort for its ambitious innovative Agri-tech program.

Aims and Objectives
- The program aims to help smallholder farmers across Asia and Africa to address their challenges in the aftermath of the pandemic.
- AIM, NITI Aayog in partnership with UNCDF, Bill & Melinda Gates Foundation and Rabo Foundation launched a South-South innovation platform to enable cross-border exchange of innovations, insights and investments in July this year 2021.
- Through this platform, cross-border collaborations among emerging markets across India, Indonesia, Malawi, Malaysia, Kenya, Uganda, Zambia would be enabled.

Important Facts
- For its first platform Agri-Tech Challenge Cohort and Agri-Fintech innovators, applications were invited to facilitate their expansion to the international markets through two tracks- Main track and AIM track.
- A total of 10 high-growth innovators have been selected in the Main track, out of a total 100 applications.
  o The key objective of the main track applications was 'Expansion – Support solution pilot in the chosen international market.'

Significance
- The Cohort represents a diverse range of solutions across the value chain of the smallholder farmer, including soil analysis, farm management & intelligence, dairy ecosystem, carbon credits, solar-based cold storage, digital marketplace, fintech, livestock insurance, among others.

Vernacular Innovation Program (VIP)

Why in News
- With an ambition to empower innovators and entrepreneurs across the country, *Atal Innovation Mission (AIM)*, *NITI Aayog* has come up with a first of its kind *Vernacular Innovation Program (VIP)*.
- It will enable innovators and entrepreneurs in India to have access to the innovation ecosystem in 22 scheduled languages by the Government of India.

Important Facts about VIP
- To build the necessary capacity for the VIP, AIM has identified and will be training a *Vernacular Task Force (VTF)* in each of the 22 scheduled languages.
  o Each task force comprises of vernacular language teachers, subject experts, technical writers, and the leadership of regional *Atal Incubation Centers (AICs)*.
- To get the program rolling, AIM NITI Aayog is launching a train-the-trainer program where it will collaborate with the Design Department of IIT Delhi to coach the VTF in design thinking and entrepreneurship and the adaptation of these subjects in the 22 languages and cultures.
- Furthermore, industry mentors have joined hands to lend design thinking expertise, and CSR sponsors have agreed to generously support the program.
- Upon training the task force over the period of December 2021 to April 2022, the ecosystem will be opened to vernacular innovators.

Significance
- Vernacular Innovation Program strengthens the design and innovation capabilities of our communities, thereby assisting local entrepreneurs, artisans and innovators to seamlessly assimilate the knowledge cum technical materials that AIM will develop.
- This would assist India in building a strong local network of design experts and innovation practitioners," he said.

- The program will be a stepping stone in the journey of the Indian innovation and entrepreneurship ecosystem which will cement the cognitive and design thinking attitude in young and aspiring minds.
- It will help in overcoming the barriers of language and empower innovators in the farthest areas of the country.
- VIP is an initiative to lower the language barrier in the field of innovation and entrepreneurship such that will systematically decouple creative expressions and languages of transaction.
- The VIP has a national audience owing to the magnitude of the problem that vernacular innovators face.

Bodoland Territorial Region Council (BTR)

Why in News

- Recently, Union Minister of State for Textiles and Railways, Smt Darshana Vikram Jardosh attended one-year celebrations of the Bodoland Territorial Region Council (BTR) at Kokrajhar.
- The Chief Minister along with Union Minister of State Smt Jardosh inaugurated Bodoland Textile Mission and Bodoland Silk Mission.
- An MoU was also signed between the Central Silk Board and the Assam Forest and Environment Department.
  - o This MoU will support forest based families in frontier forest area of Assam who earn their living by rearing silkworms.
  - o It will also provide proper assistance in providing new livelihood opportunities to them.

About Bodoland Territorial Region Council (BTR)

- *The Bodoland Territorial Council (BTC) is an autonomous council for the Bodoland Territorial Region constituted under the Sixth Schedule to the Constitution of India in the year 2003* after the signing of Memorandum of Settlement on 10th February 2003 between the Government of India, the Government of Assam and Bodo Liberation Tigers.
- The BTC consists of five contiguous districts — Kokrajhar, Baksa, Udalguri, Chirang, Mashalpur — carved out of seven existing districts — Kokrajhar, Bongaigaon, Barpeta, Nalbari, Kamrup, Darrang and Sonitpur.

Aims and Objectives

- The Council aims at bringing about accelerated progress to one of the most backward region of the state of Assam with special focus on the development of the Bodo people in the field of education, preservation of land rights, linguistic aspiration, culture and its ethnic identity.
- Above all, the BTC has placed emphasis on development of the economic infrastructure of entire area for the uplift of the downtrodden people irrespective of caste, creed and religion living in this part of the country.
- Bodos, Assamese, Bengalis, Koch-Rajbongshis, Rabhas, Garos, Adivasis, Muslims and Nepalies, etc. are the communities residing in the BTC Area.

Powers and functions of BTC

- The Council has legislative powers in respect of subjects transferred to it as enumerated below.
- The BTC also have executive, administrative and financial powers in respect of subjects transferred to it.

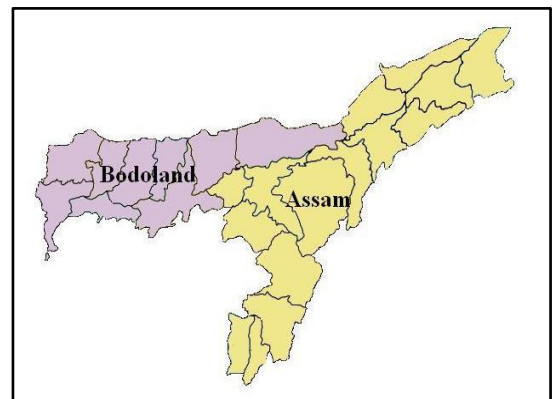1) Agriculture,   2) Soil Conservation,

3) Animal Husbandry and Veterinary,
4) Dairy Development,
5) Fisheries,
6) Forestry and Wild Life,
7) Market and Fairs,
8) Co-operation,
9) Panchayat and Rural Development,
10) Land Revenue and DM,
11) WPT&BC,
12) Irrigation,
13) Water Resources,
14) Small Scale Industries,
15) Handloom and Textile,
16) Sericulture,
17) Roads and Bridges (PWD),
18) Other Transport Services,
19) Tribal Research Institute,
20) Tourism,
21) Economics and Statistics,
22) Food and Civil Supplies,
23) Legal Metrology,
24) Education,
25) Sports and Youth Welfare,
26) Art and Culture (Cultural Activities),
27) Lottery,
28) Cinema/theatre ,
29) Library Services,
30) Museum and Archeology,
31) Health and Family Welfare Services,
32) Water Supply and Sanitation,
33) Urban Development,
34) Information and Public Relation,
35) Labour and Employment including Industrial Training Institutes,
36) Excise,
37) Social Welfare and Nutrition,
38) Printing and Stationary
39) Registration of birth and death,

- There is an Executive Council comprising of not more than 14 Executive Members, one whom shall be the Chief and another one the Deputy Chief of the said Executive Council.
  o There shall be adequate representation for the non-tribal members in the Executive Council.
- The Bodoland Territorial Council prepares two sets of budget –
a. Entrusted Budget – mainly expenditure budget pertaining to salary, etc. and development works of transferred subjects under Grant No.78 which is passed in the State Assembly and
b. Normal Budget pertaining mainly to establishment, expenditure and revenue receipts of the Council itself which is placed in the Council Legislative Assembly for approval.

The Bodo Peace Accord

- The Tripartite Bodo Accord or Memorandum of the settlement was signed between the Central government, the Assam State Government and a banned Assam based terrorist group the National democratic front of Bodoland (NDFB) on 27th January 2020.
- The Bodo Accord's objective is to bring peace and stop the separatist demands from the Bodo-Kachari People.
- This accord is an extension to an already existing Accord of 2003.

About the BODOs

- Bodos are an ethnic and linguistic community in Assam.
  o Their origin can be traced from Brahmaputra Valley, settled in North-Eastern area of India and parts of Nepal.
  o According to the census of 1991, the population of Bodo People was 1.4 million are Bodo speakersin only Assam accounting to 5.5% of the total population of Assam.
  o They speak Boro language, part of Tibeto-Burmese family and their language is recognised by the state of Assam and is an official language of Assam state and is one of the 22 scheduled languages given a special status under the Constitution of India.

GENERAL STUDIES PAPER-III

Delhi-Dehradun Economic Corridor

Why in News

- Prime Minister has recently laid the foundation stone of eleven development projects in Dehradun. This includes the Delhi-Dehradun Economic Corridor (from Eastern Peripheral Expressway Junction to Dehradun) which will be built at a cost of around Rs 8300 crore.
- It will significantly reduce the travel time from Delhi to Dehradun from six hours to around 2.5 hours.

Details of Projects Inaugurated

- The greenfield alignment project from Delhi-Dehradun Economic Corridor, connecting Halgoa, Saharanpur to Bhadrabad, Haridwar will be constructed at a cost of over Rs 2000 crore.
  - It will provide seamless connectivity and reduce travel time from Delhi to Haridwar as well.
- The *Haridwar Ring Road* Project from Manoharpur to Kangri, to be built at a cost of over Rs 1600 crore, will give a respite to residents from traffic congestion in Haridwar city, especially during peak tourist season, and also improve connectivity with Kumaon zone.
- The *Dehradun - Paonta Sahib (Himachal Pradesh) road project*, to be constructed at a cost of around Rs 1700 crore, will reduce travel time and provide seamless connectivity between the two places.
  - It will also boost inter-state tourism.
  - The Najibabad-Kotdwar road widening project will reduce travel time and also improve connectivity to Lansdowne.
- A bridge across River Ganga next to the Laksham Jhula will also be constructed. The bridge to be constructed will have provision of a glass deck for people walking, and will also allow light weight vehicles to move across.
- The *120 MW Vyasi Hydroelectric Project*, built over River Yamuna at a cost of over Rs 1700 crore, will also be inaugurated.
- Prime Minister had also laid the foundation stone for the *Child Friendly City Project, Dehradun*, to make the city child friendly by making the roads safer for their travel.
- Prime Minister will also inaugurate the State of Art Perfumery and Aroma Laboratory (Centre for Aromatic Plants) in Dehradun.
  - The research done here will prove useful for production of a variety of products including perfumes, soaps, sanitizers, air fresheners, incense sticks etc., and will lead to establishment of related industries in the region as well.
  - It will also focus on development of high yielding advanced varieties of aromatic plants.

Impact of Delhi-Dehradun Economic Corridor

- **Connectivity**: It will have seven major interchanges for connectivity to Haridwar, Muzaffarnagar, Shamli, Yamunagar, Baghpat, Meerut and Baraut.
- **Wildlife Protection**: It will have *Asia's largest wildlife elevated corridor (12 km) for unrestricted wildlife movement*.
  - Also, the 340 m long tunnel near Dat Kaali temple, Dehradun will help reduce impact on wildlife.
  - Further, multiple animal passes have been provided in the Ganeshpur-Dehradun section for avoiding animal-vehicle collisions.
- **Water Conservation** : The Delhi-Dehradun Economic Corridor will also have arrangements for rainwater harvesting at intervals of 500 m and over 400 water recharge points.

National Strategy on Blockchain

Context

- Celebrating Azadi Ka Digital Mahotsav, Minister of State for Electronics and Information Technology & Skill Development and Entrepreneurship, released the *National Strategy on Blockchain*along with the launch of RUDRA, India's first indigenous server.

About Blockchain

- Blockchain is an apt technology for e-Governance solutions and other domains, leading towards enabling trust in digital platforms.
- It provides the required security and privacy, and allows only trusted entities with privileges to record and access details in an accountable manner.

About the Strategy

- National Strategy on Blockchain has been formulated by Ministry of Electronics & Information Technology (MeitY), Government of India.

Aims

a. Creating trusted digital platforms through shared Blockchain infrastructure;
b. Promoting research and development, innovation, technology and application development;
c. Facilitating state of the art, transparent, secure and trusted digital service delivery to citizens and businesses, thus making India a global leader in Blockchain Technology.
- This strategy document lays out overall vision towards development and implementation strategies for a National Blockchain Platform covering the technology stack, legal and regulatory framework, standards development, collaboration, human resource development and potential use cases.
- It is envisaged that this strategy document would provide the necessary guidance and support for realizing the vision and creating a nationwide ecosystem for creating the National Blockchain Platform and development of relevant applications using this platform in various domains.

About the first Indigenous Server RUDRA

- It is developed by the *Centre for Development of Advanced Computing (C-DAC)* under the *National Supercomputing Mission (NSM)*.
- The server design can be used for manufacturing classical standalone commercial servers and also as building blocks for building large supercomputing systems of tens of petaflops of computing performance.
- It is poised to demonstrate India's competency to design, develop, build and deliver as per the nation's multi-disciplinary computing needs, and has critical strategic and national importance.
- A wide spectrum of sectors, including high-performance computing (HPC) systems, hyperscale data centres, edge computing, banking & commerce, manufacturing, oil & gas industry and healthcare, can benefit from the indigenously-built server.

Project RE-HAB

Why in News

- *Khadi and Village Industries Commission (KVIC)* has introduced *Project RE-HAB (Reducing Elephant-Human Attacks using Bees)* in Assam. It has been successful in Karnataka.
- The Project RE-HAB was launched at Village Mornoi in Goalpara district of Assam which severely grapples with elephant-human conflicts.
- The project has been implemented in Assam with the support of the local forest department.

Background

- Surrounded by dense forests, a large part of Assam is infested by elephants with 332 human deaths reported between 2014 and 2019 due to elephant attacks.
- The elephant menace here is so severe that villagers, over the last few years, had stopped cultivating their farms fearing elephant attacks.
- These villages have abundant production of paddy, litchi and jackfruit that attract elephants. High resolution, night vision cameras have been installed at strategic points to record the impact of bees on elephants and their behaviour in these zones.

About the Project

- Project RE-HAB is a *sub-mission of KVIC's National Honey Mission*.

- o While the Honey Mission is a programme to increase the bee population, honey production and beekeepers' income by setting up apiaries, Project RE-HAB uses bee boxes as a fence to prevent the elephant attacks.
- Under Project RE-HAB, **"Bee-fences"** are created by setting up bee boxes in the passage ways of elephants to block their entrance to human territories.
- The boxes are connected with a string so that when elephants attempt to pass through, a tug or pull causes the bees to swarm the elephant herds and dissuade them from progressing further.
- It is a cost-effective way of reducing human-wild conflicts without causing any harm to the animals.
- It is scientifically recorded that elephants are annoyed by the honey bees.
- Elephants also fear that the bee swarms can bite their sensitive inner side of the trunk and eyes.
- The collective buzz of the bees is annoying to elephants that force them to return.
- The bee boxes distributed by KVIC to the farmers will add to their income through beekeeping.

Outcomes of the Project
- It was launched at 11 locations in Kodagu district of Karnataka on 15th March 2021.In just 6 months, this project has reduced elephant attacks by over 70%.

Background
- In the past, governments have spent crores of rupees on digging up trenches and erecting fences to dissuade elephants.
- Also hundreds of crores of rupees have been spent on compensation for loss of human lives.
- These trenches and barbed wire fences have often caused the deaths of elephant calves and thus rendering these ideas largely impractical.

Need for the project
- Nearly 500 people die every year due to elephant attacks in India.
- This is nearly 10 times more than the fatalities caused by big cats across the country. From 2015 to 2020, nearly 2500 people have lost their lives in elephant attacks.
  - o On the contrary, nearly one-fifth of this number, i.e. nearly 500 elephants have also died in retaliation by humans in the last 5 years.

RBI Retail Direct Scheme' and 'Integrated Ombudsman Scheme, 2021
Why in News
- The Reserve Bank of India (RBI) has launched the 'RBI Retail Direct Scheme' and 'Integrated Ombudsman Scheme, 2021'.

Brief Details
- Government has not conducted any survey to find out the extent to which these schemes will be able to expand the scope of investment, access to capital markets, and security for investors but the Reserve Bank of India has designed the Scheme based on the feedback received from the market participants for simplifying the access to the G-Sec market by retail investors.
- The online portal developed for the Scheme is secure and user-friendly.
- The scheme expects to bring the government securities within easy reach of the general public by simplifying the investment process and widening the investor base.

Expected Outcome

- RBI Retail Direct Scheme is expected to widen the investor base for the government securities which may result in increased demand for these securities leading to reduced cost of borrowing for the Government.
- Secondly, the increased retail participation in Indian government securities (G-sec) will improve G-sec market liquidity which would facilitate further deepening of the Indian G-sec market.

Science Technology and Innovation (STI) Hubs

Why in News

- S*even Science Technology and Innovation (STI) Hubs* for ST were established during the last two years in different regions of the country.

About The STI Hubs

- STI Hubs are established by the Department of Science and Technology (DST)
- These are expected to develop, nurture and ensure the delivery of appropriate and relevant technologies for inclusive socio-economic development through creation of sustainable livelihoods for the SC and ST population in tune to their growing aspirations.
- The training and skill development programmes under the STI Hubs will build the Science Technology and Innovation (STI) Capacities and Capabilities among SC/ST population.
- The STI Hubs also improve the Indigenous Knowledge Systems (IKS) through inputs of S&T and converting them to appropriate technologies for creating better livelihood options.

Objectives

STI hubs have mainly three-fold objectives:

a. Address the weakest linkages in the predominant livelihood systems through Science & Technology (S&T) interventions.
b. Creation of social enterprises based on the strengths in livelihood systems.
c. Improve the Indigenous Knowledge Systems (IKS) through inputs of S&T for strengthening the livelihoods

Deposit Insurance Programme

Why in News

- Prime Minister has recently addressed depositors during a programme in Delhi regarding *'Depositors First: Guaranteed Time-bound Deposit Insurance Payment up to ₹5 Lakh'* .

Important Facts

- *Deposit insurance* covers all deposits such as savings, fixed, current, recurring deposits, etc. in all commercial banks, functioning in India.
  - o Deposits in State, Central and Primary cooperative banks, functioning in States/Union Territories are also covered.
  - o Bank deposit insurance cover was enhanced from ₹1 lakh to ₹5 lakh.
- With deposit insurance coverage of ₹5 lakh per depositor per bank, the number of fully protected accounts at the end of the previous financial year constituted 98.1 per cent of the total number of accounts, as against the international benchmark of 80 per cent.
- The first tranche of interim payments has been released by the Deposit Insurance and Credit Guarantee Corporation recently, against claims received from depositors of 16 Urban Cooperative Banks which are under restrictions by RBI.

Background

- In our country, the insurance procedure for bank depositors was developed in the 60s.
- Earlier, out of the amount deposited in the bank, only the amount up to 50,000 rupees was guaranteed.
- Later it was increased to one lakh rupees. That is, if the bank went bust, the depositors would get only up to one lakh rupees, but it was not guaranteed when they would get that money. It used to remain unresolved for 8-10 years.

Changes in Deposit Insurance

- Considering the concern of the poor and the middle class, increased this amount from Rs 1 lakh to Rs 5 lakh.
  - o With this arrangement, accounts of about 98 percent of the people have been completely covered. Only 2 percent is left now.
  - o The number of depositors is also huge.
  - o With this decision, Rs.76 lakh crore is fully insured.
- Earlier, where there was no time limit for refund, now government has made it mandatory for 90 days i.e., three months.

Measures taken to address CO2 emissions from Civil Aviation

Why in News

- During the 39th General Assembly, *International Civil Aviation Organization (ICAO)* decided to implement a *Global Market Based Measure (GMBM) scheme* in the form of *Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)* to address CO2 emissions from international civil aviation.

Details

- For Indian Operators, the CORSIA offsetting requirements will be applicable from 2027 viz. from Mandatory (Second) phase of the CORSIA implementation.
- India has filed reservations at the 40th ICAO Assembly in 2019 regarding the current structure of CORSIA.
- The matter has been taken up at Council level through Representative of India at ICAO Council.

Implementation of CORSIA in India

a. *Directorate General of Civil Aviation (DGCA)* has issued Civil Aviation Requirements on "CORSIA" after consultation with the stakeholders.
b. DGCA in association with *International Air Transport Association (IATA)* and *European Union Aviation Safety Agency (EASA)* has carried out various workshops and seminars/trainings for the industry to sensitize them on CORSIA requirements.
c. DGCA has worked in closed coordination with *National Accreditation Board for Certification Bodies (NABCB)* to empanel two verification bodies to carry out verification activities on CORSIA for the airlines.

About CORSIA

- The *Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)* is a carbon offset and carbon reduction scheme to lower CO2 emissions for international flights, to curb the aviation impact on climate change.
  - o It is developed by the *International Civil Aviation Organization (ICAO)* and adopted in October 2016.
  - o Its goal is to have a carbon neutral growth from 2020.
- CORSIA uses Market-based environmental policy instruments to offset CO2 emissions: aircraft operators have to purchase carbon credits from the carbon market.
- The scheme is voluntary for all countries until 2027.

All-India Quarterly Establishment Based Employment Survey (AQEES)

Why in News

- Government has launched All-India Quarterly Establishment Based Employment Survey (AQEES) in April, 2021.

Finding of the Survey

- As per the result of the *first round of Quarterly Employment Survey* for the period April to June 2021, employment increased to 3.08crore in the nine selected sectors of the economy against a total of 2.37crores in these sectors taken collectively, as reported in the sixth Economic Census (2013-14) reflecting a growth rate of 29%.
- Growth rates in various sectors:
  - o IT/BPO sector-152%,
  - o Health-77%,
  - o Education-39%,
  - o Manufacturing-22%,
  - o Transport-68%
  - o Construction-42%.

- As per annual *Periodic Labour Force Survey (PLFS)* reports, the details of the estimated Unemployment Rate (UR) for persons of age 15 years and above on usual status basis in the country are 6 in 2017-18, 5.8 in 2018-19 and 4.8 in 2019-20.

Steps taken by Government for generating employment

- The Government of India is encouraging various projects involving substantial investment and public expenditure on schemes like
a. Prime Minister's Employment Generation Programme (PMEGP)of the Ministry of Micro, Small & Medium Enterprises,
b. Pt. Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)of the Ministry of Rural Development,
c. Deen Dayal Antodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) of the Ministry of Housing & Urban Affairs
d. Pradhan Mantri Kaushal VikasYojana (PMKVY) of the Ministry of Skill Development & Entrepreneurship (MSDE) etc.

Aatmanirbhar Bharat package

- The Government of India has announced Aatmanirbhar Bharat package to provide stimulus to business and to mitigate the adverse impact of Covid 19.
- Under this package, the Government is providing fiscal stimulus of more than Rs.27lakh crore.

Pradhan Mantri Garib Kalyan Yojna (PMGKY)

- Under PMGKY, Government of India has contributed both 12% employer's share and 12% employee's share under Employees Provident Fund (EPF), totaling 24% of the wage for the wage month from March to August, 2020 for the establishments having 100 employees with 90% of such employees earning less than Rs.15000/.

Garib Kalyan Rojgar Abhiyaan (GKRA)

- The Government has launched the GKRA of 125 days on 20th June, 2020 to boost employment and livelihood opportunities for returnee migrant workers and similarly affected persons including youth in rural areas, in 116 selected districts across 6 States of Bihar, Jharkhand, Madhya Pradesh, Odisha, Rajasthan and Uttar Pradesh.

Aatmanirbhar Bharat Rojgar Yojana (ABRY)

- It has been launched with effect from 1st October, 2020 as part of *Atmanirbhar Bharat package 3.0*to incentivize employers for creation of new employment along with social security benefits and restoration of loss of employment during Covid-19 pandemic.
- This scheme being implemented through the *Employees' Provident Fund Organisation (EPFO)*, seeks to reduce the financial burden of the employers and encourages them to hire more workers.
- The terminal date for registration of beneficiaries has been extended from 30.06.2021 to 31.03.2022.
- Benefits have been provided to 39.59 lakh beneficiaries through 1.17 lakh establishments.

Prime Minister Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi) Scheme

- It has been launched on June 01, 2020 to provide working capital loans to Street Vendors, vending in urban areas, to resume their businesses, which were impacted adversely due to COVID-19.
- Under this scheme, amount of Rs.2641.46crore has been disbursed to 26.46 lakh beneficiaries.

Pradhan Mantri Mudra Yojana(PMMY)

- It is being implemented by the Government for facilitating self-employment.
- Under PMMY, collateral free loans upto Rs.10 lakh, are extended to micro/small business enterprises and to individuals to enable them to setup or expand their business activities Upto November 2021, 31.28crore loans were sanctioned under the scheme.
- Name of various flagship programmes of the Government are also oriented towards generating productive employment opportunities.
a. Make in India,
b. Digital India,
c. Smart City Mission,
d. Atal Mission for Rejuvenation and Urban Transformation,
e. Housing for All,

f. Infrastructure Development and Industrial Corridors

g. Production Linked Incentive (PLI) Scheme.

Transient high energy pulses

Why in news
- Scientists have traced first clue to understand *transient high energy pulses* from *magnetars*several thousand times to that of the Sun.
- They have found the first clues to understand violent short duration flares from a compact star of rare category called *magnetar* located thirteen million light years away.

Background
- Scientists have long been intrigued by such short and intence bursts --- transient X-ray pulses of energies several times that of the Sun and length ranging from a fraction of a few millisecond to a few microseconds.
  - The eruption was detected by the *Atmosphere-Space Interactions Monitor (ASIM) instrument*, on board the International Space Station.
- These flares had been detected in two of the thirty known magnetars in our galaxy, the Milky Way, but also in two others located in other galaxies.
- *GRB2001415*would be the most distant *magnetar* eruption captured to date, found in the Sculptor group of galaxies (NGC 253) some thirteen million light years away.
  - Detections of giant flares from magnetars are extremely rare.

Alfven Waves
- Regardless of the trigger, in the magnetosphere of the star a type of waves will be created.
  - These waves which are well known in the Sun, are called *Alfvén waves* and while bouncing back and forth between the points at the base of its lines of magnetic field, they interact with each other dissipating energy.
  - The oscillations detected in the eruption are consistent with the emission produced by the interaction between Alfvén waves, whose energy is rapidly absorbed by the crust.
  - Thus, in a few milliseconds the magnetic reconnection process ended and, therefore, also the pulses detected in GRB200415, which disappeared 3.5 milliseconds after the main burst.
  - The analysis of the phenomenon has made it possible to estimate that the volume of the flare was similar or even greater than that of the neutron star itself.

Significance
- This eruption has provided a crucial component in understanding how magnetic stresses are produced in and around a neutron star, concludes Castro-Tirado.
- Continuous monitoring of magnetars in nearby galaxies will help to understand this phenomenon, and will also pave the way to learn more about fast radio bursts, today one of the most enigmatic phenomena in astronomy.

About Magnetars?
- When massive stars like *supergiant stars* with a total mass of between 10 and 25 solar masses collapse they might form neutron stars.
- Among neutron stars, stands out a small group with the most intense magnetic field known: *magnetars*.
- These objects, of which only thirty are known so far, suffer violent eruptions that are still little known due to their unexpected nature and short duration, of barely tenths of a second.
- In an inactive state, magnetars can be many thousands times more luminous than our Sun.
  - But in the case of the flash GRB2001415, which occurred on April 15, 2020 and lasted only around one tenth of a second, the energy that was released is equivalent to the energy that our Sun radiates in one hundred thousand (100,000) years.
- It is believed that eruptions in magnetars may be due to instabilities in their magnetosphere or to a kind of "earthquakes" ("starquakes") produced in their crust, a rigid and elastic layer about a kilometer thick.

FOREIGN AFFAIRS

Topic	Details
UAE	• The third round of India-UAE CEPA negotiations was held in New Delhi on 06-10 December 2021.
Russia	• A contract has been signed on 05 October 2018 for delivery of S-400 system from Russia. • The S-400 Missile is a potent system in terms of its operational capability to provide continuous and effective air defence system to a very large area.

SHORT LINERS

1. **National Crisis Management Committee (NCMC) :** National Crisis Management Committee is a committee set up by the Government of India in the wake of a natural calamity for effective coordination and implementation of relief measures and operations.
- It is headed by Cabinet Secretary.
- Cabinet Secretary Cabinet Secretary, Shri Rajiv Gauba is its present chairman.

2. **National Crop Forecast Centre for Yield Estimation**: The Government of India plans to migrate towards technology based yield estimation from the conventional Crop Cutting Experiment (CCE) based yield estimation approach.
- Innovative technologies such as High Resolution Satellite data (Optical and microwave), Unmanned Aerial Vehicle (UAV), Advanced multi-parameter crop models, Mobile Applications for Field Data Collection, Artificial intelligence/ Machine learning approach, Sensor Networks, Internet of Things, Field based digital photographs, Hand held instruments and Scientifically designed Sampling Plans shall be in use.
- Towards assessing accurate crop yield/loss at insurance unit, the Government has taken an initiative to develop a protocol for Crop Yield estimation at Gram Panchayat level by using Innovative Technologies.

3. **PATENTS RULES, 2021 :** The Patents Rules, 2003 were amended by the Patents (Amendment) Rules, 2021 which came into force on 21st September 2021.
- Vide the Patents (Amendment) Rules, 2021, the term 'educational institution' was defined .
- Consequently, the said educational institutions will be eligible for benefit of reduced fee which is around 80% lower than the fee that is payable by other entities.

4. **Start-ups Intellectual Property Protection (SIPP Scheme)**: The scheme for facilitating Startups Intellectual Property Protection (SIPP Scheme) was initiated, on pilot basis, in 2016.
- The SIPP Scheme was run for the benefit of Start-ups, by providing for facilitators (registered patent agents, registered trade mark agents, lawyers, government organisations like TIFAC, NRDC, etc.) who would provide their professional services to the Start-ups but claim their fees from the *Office of the Controller General of Patents, Designs and Trade Marks (CGPDTM)*.

5. **NEIA SCHEME :** The National Export Insurance Account (NEIA) Trust aims to ensure the availability of credit risk cover for projects and other high-value exports, which are desirable from the point of view of national interest, but which ECGC is unable to underwrite due to capacity constraints or at terms, which are different from its regular policies.
- NEIA provides additional support to the insurance cover provided by ECGC for project exports making Indian project exporters more competitive and gain a stronger foothold in various jurisdictions, highlighting India's capabilities to execute large projects abroad.
- Government has approved Grant-in-aid infusion of Rs.1,650 crore into NEIA Trust during 2021-22 to 2025-26.

6. *Department of Telecommunications (DoT) and International Telecommunication Union (ITU) have commenced India-ITU Joint Cyber-drill 2021.*
- This Cyber-drill is intended for Indian entities especially Critical Network Infrastructure operators.

7. **Legal Metrology (Packaged Commodities) Rules 2011**: The Government has amended the Legal Metrology (Packaged Commodities) Rules 2011.

- In order to protect the interests of consumers, a new provision has been introduced which makes it *mandatory for the unit sale price of the commodity to be indicated on the package*.
    - o This will allow the consumer to take an informed decision, irrespective of the size/quantity of the commodity being packed in the package.
- In order to remove the confusion in the case of items sold by number, *the number or unit or piece or pair or set or such other word which represents the quantity in the package shall be mentioned in the pre-packed commodities*.

8. **Gender Inclusion Fund (GIF) :** National Education Policy (NEP), 2020 provides for setting up a Gender Inclusion Fund (GIF) to build the nation's capacity to provide equitable quality education for all girls as well as transgender students.

- The above objectives of NEP for Equitable and quality education for girls and transgender children are being met through specific provisions under SamagraShiksha2.0 by allocating dedicated resources for SEDGs.

9. **CENSUS-2021:** The forthcoming Census is to be the first digital Census. Mobile App for collection of data and a Census Portal for management and monitoring of various Census related activities have been developed.

- In Census, the castes and tribes which are specifically notified as Scheduled Castes and Scheduled Tribes as per the Constitution (Scheduled Castes) Order 1950 and the Constitution (Scheduled Tribes) Order, 1950, as amended from time to time, are enumerated.
- The State Governments of Bihar, Maharashtra and Odisha have requested to collect caste details in the forthcoming Census. The Government of India has not enumerated caste wise population other than SCs and STs in Census since independence.
- The names of the mother tongue and two other languages known in order of proficiency are to be recorded by the enumerator in the forthcoming Census as responded by each person.

10. **Flipkart Samarth programme**: A Memorandum of Understanding (MoU) is entered on November 2nd, 2021 between Ministry of Rural Development and Flipkart Internet Pvt. Ltd. to allow the Self Help Groups (SHGs) producers including the artisans, weavers and craftsmen to access national markets through the Flipkart Samarth programme.

- The key features of MoU are as follows:
a. SHG members and Clusters (geographical grouping of SHGs) will be provided training support for on-boarding products.
b. Waiver of all commission charges for selling on the platform for a period of 6 months.
c. Cataloguing support for a maximum of 100 products per seller.
d. Other benefits like support for warehousing and account management etc.

11. The Ministry in collaboration with Government e-Marketplace (GeM) has created **"Saras Collection"** as a Store Front in GeM for marketing of SHG products.

12. **PM-MITRA**: With a view to attract investment, boost employment generation and position itself strongly in the global textile market, the Government has approved setting up of *7 (Seven) PM Mega Integrated Textile Region and Apparel (PM MITRA) Parks in Greenfield/Brownfield sites* including plug and play facility with an outlay of Rs. 4445 cr for a period of seven years upto 2027-28.

13. **Hornbill Festival** : Hornbill festival reflects the rich culture, lifestyle, and food habits of Nagaland. It is the largest celebration of the Indigenous Warrior Tribes of Nagaland & generally celebrated for 10 days .

- The festival is called Hornbill, also known as Dhanesh bird. It occupies an important place in the culture and folklore of the Naga tribes.

14. **Landslide Early Warning System (LEWS)***:* Geological Survey of India (GSI), Ministry of Mines in collaboration with the British Geological Survey (BGS) under the National Environmental Research Council (NERC), UK funded, multi-consortium LANDSLIP project (www.landslip.org) has developed a prototype regional *Landslide*

Early Warning System (LEWS) for India, and the same is currently being evaluated and tested by GSI in two pilot areas in India(Darjeeling district.
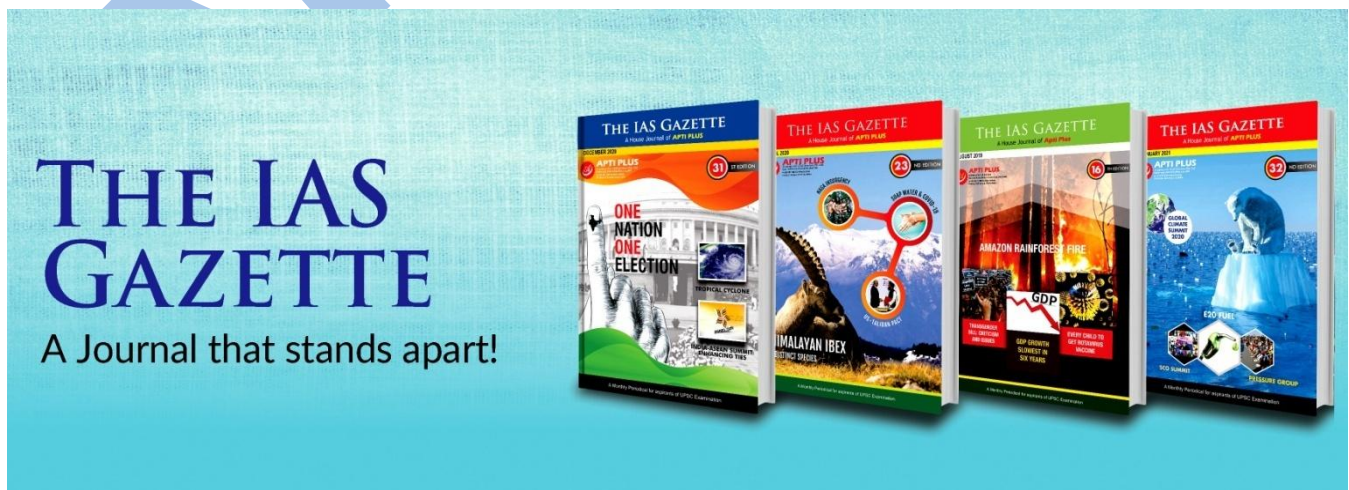
15. *At COP 21, as part of its Nationally Determined Contributions (NDCs), India had committed to achieving 40% of its installed electricity capacity from non-fossil energy sources by 2030*.
- The country has achieved this target in November 2021 itself. The country's installed Renewable Energy (RE) capacity today stands at 150.05 GW while its nuclear energy based installed electricity capacity stands at 6.78 GW.
- This brings the total non-fossil based installed energy capacity to 156.83 GW which is 40.1% of the total installed electricity capacity of 390.8 GW.
- In line with the Hon'ble Prime Minister's announcement at the recently concluded CoP26, the Government is committed to achieving 500 GW of installed electricity capacity from non-fossil fuel sources by the year 2030.

16. **Cyclone Jawad:** *India Meteorological Department (IMD)* informed that low pressure region in the Bay of Bengal is expected to intensify into Cyclone Jawad.
- It caused major disruptions over Andhra Pradesh, Odisha and West Bengal while bringing heavy rainfall and strong winds with the estimated wind speed ranging up to 100 kmph.
- It is likely to cause heavy rainfall in the coastal districts of Andhra Pradesh, Odisha & West Bengal.

17. **Puneet Sagar Abhiyan : National Cadet Corps (NCC) is carrying out a nationwide campaign to free seashores/beaches from plastic & other waste materials and increase awareness about importance of keeping these clean.**
- The aim of the month-long Campaign is to propagate the message of 'Importance of Clean Seashores/Beaches' amongst the local population and future generation beginning December 01, 2021.
- The Key objectives of the campaign are to clean the plastic waste along the seashores in coastal areas, to generate awareness and educate target population about the measures for conservation and impact of plastic pollution along the sea beaches and to sensitise and mobilise support of local population towards prevention of pollution.

18. **Defence Industrial Corridors**: *In the General Budget 2018-19, Central Government announced setting up of 02(two) Defence Industrial Corridors (DICs) in the country*.
- In pursuance of the said announcement, it was further decided to set up one of these Corridors in Uttar Pradesh (UP) and another in TamilNadu (TN).
- Defence Industrial Corridors (DICs) are aimed at providing fillip to the defence manufacturing ecosystem in both States and attract investment worth Rs. 10,000 Crore in each of the DICs by the year 2024-25.
- The respective State Governments provide necessary lands, connectivity and basic infrastructure for the DIC.

19. **Mobile Veterinary Unit**: The Central Government is implementing a scheme viz. Establishment & Strengthening of Veterinary Hospitals & Dispensaries – Mobile Veterinary Unit (ESVHD-MVU), with an aim to provide veterinary services at farmer's doorstep by mobile veterinary units.
- The scheme provides 100% financial assistance towards non- recurring expenditure on procurement of mobile veterinary units and central share towards recurring expenditure (90:10 for North Eastern States & Himalayan States, 100% for Union territories and 60:40 for all other States) on running of these mobile veterinary units for delivery of veterinary services at farmer's doorstep.

20. **To provide its techno-financial expertise in developing Renewable Energy projects, Indian Renewable Energy Development Agency Ltd. (IREDA) today signed a Memorandum of Understanding (MoU) with THDC India Ltd (THDCIL).**
- Under the MoU, IREDA will undertake Techno-Financial due diligence of Renewable Energy and Energy Efficiency &Conservation projects for THDCIL.
- IREDA will assist THDCIL in developing an action plan to create and acquire Renewable Energy projects for the next 5 years.
- IREDA will also extend its techno-commercial expertise to THDCIL for Environmental & Social (E&S) due diligence of RE projects as per the internationally accepted E&S standards.

21. *To realize its green energy objectives, Oil and Natural Gas Corporation Ltd (ONGC) has signed a Memorandum of Understanding (MoU) with Solar Energy Corporation of India (SECI).*
- The MoU provides a broad, overarching framework for ONGC and SECI to collaborate and cooperate for undertaking renewable energy projects including solar, wind, solar parks, EV value chain, green hydrogen, storage, etc.

22. *Government of India has accorded in-principle-approval for development of Major Port at Vadhavan in Maharashtra by a Special Purpose Vehicle (SPV) incorporated under Companies Act, 2013 with Jawaharlal Nehru Port as lead partner.*

23. **Ramna Kaali Temple**
- The renovated temple was recently inaugurated in Dhaka in the presence of Mr. Ramnath Kovind, the hon'ble President of India.
- The history of the area called Ramna ('lawn' in Persian) can be traced back to the early 1600s, when it was occupied by high officials of the Mughals.
  o The Kali temple in the area is believed to have been built during the Mughal period by a Hindu sect.
  o It is said that it was built by a certain Haricharan Giri who was a mahant in the temple.
  o It is the second oldest Hindu temple in Bangladesh, the Dhakeshwari Temple being the oldest.
- *The temple was destroyed by Pakistani forces during their Operation Searchlight in March 1971.*

24. **Keraleeyam-V K Madhavan Kutty Puraskaram-2020**
- It is an award conferred in the field of Journalism.
- A legend in his lifetime, Shri Madhavan Kutty won several awards as a journalist and as a literary figure of eminence.
  o He was conferred the Kerala Sahitya Akademi award in 1991 and & Swadeshabhimani Puraskaram in 2002 by the Kerala government for his exemplary contribution as a journalist.

25. The King of Bhutan, His Majesty Jigme Khesar Namgyel Wangchuck, conferred its highest civilian award, the Order of the Druk Gyalpo, on Prime Minister, Shri Narendra Modi on the occasion of the country's National Day.

26. '*Sandhayak*', the first of the four Survey Vessels (Large) project being built for the Indian Navy, was launched in Kolkata on December 05, 2021.
- These Vessels have been designed and developed by Defence Public Sector Undertaking, Garden Reach Shipbuilders and Engineers (GRSE) Limited, which is among the leading warship building companies in India.

27. The *National Medicinal Plants Board (NMPB)* and the *Council of Scientific and Industrial Research-Central Institute of Medicinal and Aromatic Plants, (CSIR-CIMAP)*, Lucknow have recently signed an MoU today for extending joint collaborative efforts to promote the production of quality planting material (QPM) of medicinal plants.
- The MoU will facilitate development of QPM of medicinal plants and herbs identified by NMPB and help in establishment of their nurseries for QPM development, promotion, conservation and cultivation of the appropriate medicinal plants in different agro-climatic zones.

28. **Ministry of Housing and Urban Affairs (MoHUA), Government of India has recently signed a Memorandum of Understanding (MoU) with the United Nations Development Programme (UNDP) India to strengthen the waste management sector in India under the overall ambit of Swachh Bharat Mission- Urban 2.0.**
- The MoU will be operational for a period of five years (2021-26).

29. *National Aquifer Mapping and Management Programme (NAQUIM)* is being implemented as a part of the Ground Water Management and Regulation scheme with the objectives to delineate and characterize the aquifers and develop plans for ground water management.

30. **Aatamanirbhar Skilled Employee-Employer Mapping (ASEEM) Portal**: Ministry of Skill Development and Entrepreneurship has launched Aatmanirbhar Skilled Employees Employer Mapping (ASEEM) portal, which acts as a directory of skilled workforce.

- The objective is to provide a platform that matches supply of skilled workforce with the market demand, thereby facilitating better livelihood opportunities for youth and availability of ready skilled manpower to employers.
- *ASEEM portal is being managed by National Skill Development Corporation (NSDC).*

31. Nanda Kishore Prusty (1919 – 7 December 2021) was an Indian teacher from Kantira, Odisha. In 2021, he was awarded the Padma Shri for his contribution to education.Prusty died of COVID-19 on 7 December 2021, at the age of 102.

32. *Shri Sunil Arora, former Chief Election Commissioner of India has been invited to join the Board of Advisers for International Institute for Democracy and Electoral Assistance (IDEA).*

- The Institute is assisted by a 15-member Board of Advisers who are eminent personalities or experts from a wide variety of backgrounds.
- The International Institute for Democracy and Electoral Assistance (International IDEA), established in 1995, is an intergovernmental organization based in Stockholm, Sweden with a mission to support sustainable democracy worldwide.
- International IDEA currently has 34 member countries which include large and small, older and newer democracies from all continents. India has been one of the founding members of IDEA.

33. *Bhartiya Prakritik Krishi Padhati (BPKP)*, a sub scheme of Paramparagat Krishi Vikas Yojana (PKVY) since 2020-21 is promoted for traditional indigenous practices including Zero Budget Farming.

- The scheme mainly emphasizes on exclusion of all synthetic chemical inputs and promotes on-farm biomass recycling with major stress on biomass mulching, use of cow dung-urine formulations and plant based preparations.

34. *Permanent Mission of India to the WTO in Geneva (PMI), the Centre for Trade and Investment Law, New Delhi (CTIL), Indian Institute of Foreign Trade, and the Centre for Trade and Economic Integration of The Graduate Institute, Geneva (CTEI) signed a tripartite Memorandum of Understanding (MoU) in Geneva to begin collaboration towards research and capacity-building in the field of international trade law and policy.*

- The MOU seeks to provide valuable academic and research opportunities to the professional staff of CTIL and the officials of the Government of India in the field of international trade and investment law.
- The tripartite MoU establishes collaboration channels between CTIL and CTEI while the PMI will play a key facilitative role for activities under the MoU.

35. *PANEX-21*: A Curtain Raiser Event for Humanitarian Assistance and Disaster Relief exercise, PANEX-21, for the member nations of BIMSTEC countries, was recently held at Kothari Auditorium DRDO Bhawan.

36. The Government of India and the Asian Development Bank (ADB) today signed a $125 million loan to improve access to safe and affordable drinking water supply and citywide inclusive sanitation services in Dehradun and Nainital cities in the state of Uttarakhand.

37. The Government of India and Asian Development Bank (ADB) today signed a $150 million loan to provide access to inclusive, resilient, and sustainable housing for the urban poor in the state of Tamil Nadu.

38. **She is a Changemaker:** To improve leadership skills of grass-root women political leaders, the National Commission for Women (NCW) today launched a pan-India capacity building programme,'She is a Changemaker' for women representatives at all levels, gram panchayats to parliament members and political workers including office bearers of National/State political parties.

39. **Union Minister for Finance and Corporate Affairs participated virtually from New Delhi in the G20 International Seminar hosted in Bali by the G20 Presidency of Indonesia**.

- G20's theme for this year, "*Recover Together, Recover Stronger*".

40. The Department of Animal Husbandry and Dairying, in partnership with Start-up India, launched the second edition of 'Animal Husbandry Start-up Grand Challenge' at an event celebrating 'National Milk Day' in Anand, Gujarat to commemorate the birth centenary of Dr. Varghese Kurien.

41. *Bharat Petroleum Corporation Limited (BPCL), a 'Maharatna' and a Fortune Global 500 Company has collaborated with Bhabha Atomic Research Centre (BARC) to scale-up Alkaline Electrolyser technology for Green Hydrogen production.*
- Refineries use large quantities of Hydrogen for de-sulfurization to make petrol, diesel and other chemicals.
- Currently, Hydrogen is made at the Refinery via. Steam Reforming of Natural gas, but this results in high CO2 emission.
- Therefore, Refiners are setting up large scale electrolysers to produce Green Hydrogen from water and thereby decarbonize Hydrogen production.
- *India's first; and one of world's largest Green Hydrogen Microgrid Projects is going to be set up at Simhadri (near Visakhapatnam).*

42. Persons who are not covered under the existing scheme of reservations for the Scheduled Castes, the Scheduled Tribes and the Socially and Educationally Backward Classes and whose family has gross annual income below Rs.8.00 lakh are to be identified as EWSs for the benefit of reservation.

43. **India Water Impact Summit**: The 6th Edition of the India Water Impact Summit was recently concluded in New Delhi.
- Theme of the Summit: River Resources Allocation- Planning and Management at the Regional Level.
- The session was conducted in a hybrid mode by National Mission for Clean Ganga (NMCG), New Delhi and Centre for Ganga River Basin Management and Studies (cGanga), Kanpur.

44. Ministry of Social Justice and Empowerment has formulated a scheme "*SMILE - Support for Marginalized Individuals for Livelihood and Enterprise*", which includes a sub-scheme - '*Central Sector Scheme for Comprehensive Rehabilitation of persons engaged in the act of Begging*'.

45. The government has launched a campaign namely *Kalam Program for Intellectual Property Literacy and Awareness Campaign (KAPILA)*on 15th October, 2020 to increase awareness regarding protection and exploitation of Intellectual Property (IP) and also to provide funding support in order to promote filing of the Intellectual Property (IP)in Higher Education Institutions.

46. *NITI Aayog* signs a Statement of Intent with *United Nations World Food Program (WFP)*on 20th December 2021.
- Mainstreaming of millets and supporting India in taking lead globally in knowledge exchange using the opportunity of *2023 as an International Year of Millets*.

47. **An MoU on cooperation for 2019-2023 signed between Government of India & the United Nations World Food Programme (UNWFP) on 1st February 2019 builds upon the "Basic Agreement" entered into by the Parties in 1968.**
- Through this MoU, the parties mutually agreed on the Country Strategic Plan (CSP) 2019-2023.

48. **Missile Pralay** : Defence Research and Development Organisation (DRDO) successfully conducted maiden flight test of indigenously developed *surface-to-surface missile 'Pralay'*, from Dr A P J Abdul Kalam Island off the coast of Odisha.

49. The Prime Minister launches a Portal and Logo dedicated to the *Conformity Assessment Scheme of milk products*, in Varanasi.
- Portal and Logo developed by the *Bureau of Indian Standards (BIS)* with the help of *National Dairy Development Board (NDDB).*

50. **The Steel Authority of India Ltd. (SAIL),** under the Ministry of Steel has been awarded with the prestigious Golden Peacock Environment Management Award for the year 2021 in the Steel Sector by the Institute of Directors.
    o SAIL has been the winner of this award for successive three years.
    o Company's environmental protections measures are focused on adopting various environmental measures including, upgrading of pollution control facilities, water conservation efforts with aim to achieve _Zero Liquid Discharge_, efficient handling of different solid wastes (viz. process waste, hazardous waste, canteen/township waste), carbon sequestration through afforestation, eco-restoration of mined out area and etc.

51. **Defence Research and Development Organisation (DRDO)** successfully tested the new generation nuclear capable ballistic missile 'Agni P' from Dr APJ Abdul Kalam island off the coast of Odisha at 1106 hrs on December 18, 2021.
    o The Agni P is a two-stage canisterised solid propellant ballistic missile with dual redundant navigation and guidance system. This second flight-test has proven the reliable performance of all the advanced technologies integrated into the system.

52. **The National Cadet Corps (NCC) and National Highways Authority of India (NHAI)** signed a Memorandum of Understanding (MoU) to reuse plastic wastes collected by NCC Cadets during Puneet Sagar Abhiyan and other Swachhta activities for construction of roads by NHAI throughout the country. To promote and create favourable conditions for environmental safety, NCC has initiated a nationwide campaign Puneet Sagar Abhiyan to clean seashores/beaches off the plastic & other wastes along the seashores and increase awareness about importance of keeping the seashores free from plastic wastes.

53. **Kakori conspiracy** : The Kakori Train Robbery (prapt of Kakori conspiracy) was a train robbery that took place at Kakori, a village near Lucknow, on 9 August 1925 during the Indian Independence Movement against the British Raj.
    o It was organised by Hindustan Republican Association (HRA).
    o The robbery was conceived by Ram Prasad Bismil and Ashfaqullah Khan who belonged to the HRA, which later became the Hindustan Socialist Republican Association.

YOJANA

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GI- Tagging of Rural Products

Introduction

- India realised the need to protect its indigenous, unique, and reputed products through GI when an American company was given a patent of Basmati rice, and India had to resort to an expensive procedure of challenging the patent in the US court of law.
- This necessitated India to enact the Geographical Indications of Goods (Registration and Protection) Act, 1999 in 2003 to give protection for GI through sui generis legislation.
- To facilitate this process, the Geographical Indications Registry of India was set up in Chennai.

Background

- The existing international framework on the *Geographical Indications (GIs)* derives its strength from *Article 22* of the *Trade-Related Aspects of Intellectual Property Rights (TRIPS)* Agreement, which defines GIs as 'indications which identify a good as originating in the territory of a member, or a region or locality in that territory, where a given quality, reputation or other characteristics of the good is essentially attributable to its geographical origin'.
  - o This mandates member countries to provide for the protection of all GIs, where the obligation is for the members to provide the 'legal means for interested parties', to secure protection of their GIs.
  - o Geographical Indications are also covered as an element of *Intellectual Property Rights (IPRs)* under *Articles 1(2) and l0 of the Paris Convention for the Protection of Industrial Property*.

Difference between GI and Trademarks

- GI is different from the other type of Intellectual Property called 'trademarks' in a way that Trademark is a sign assigned to an enterprise that gets the exclusive right to use it to distinguish its goods and services from those of others.
  - o GI is not a property right given to an individual to use it, rather it is attributed to goods or services specific to a region which allows every producer in the specified region to use the said GI as long as the quality of the GI goods is similar to the specified qualities of the identified product of the said region.

Statistics

- Globally, an estimated 55,800 protected GIs were in existence in 2019, with maximum GIs in force in Germany followed by China, and Hungary.
  - o USA and India had just 529 and 361, respectively.
- All the GIs in force in China and India are protected through national systems, whereas the bulk of GIs in force in Australia, Israel, and Ukraine are protected through international agreements.

GI tag in India

- Darjeeling Tea was the first Indian product that was awarded the GI tag in 2004 for its naturally occurring quality, flavour, and market potential. In fact, three variants of Darjeeling tea-black, green, and white have got GI tag.
  - o Till now, 370 products have been registered as GIs by the GI Registry of India which comprise handicraft (214), agricultural (112), foodstuff (16), foreign foodstuff, and manufactured (14), Indian manufactured (12), and natural goods (2).
  - o Karnataka has the highest number of GI tags with 47 products followed by Tamil Nadu (39).

Initiatives

- There is a need to put in place a dedicated institutional structure and also a mechanism that deals with the affairs of GI products. The registration of goods per se does not confer the economic benefits unless it is backed by a sound enforcement mechanism, both in domestic and export markets.
  - o For this purpose, India has started taking *initiatives for setting up traceability systems* at the government and corporate levels.
- a. *GrapeNet*, an initiative by the *Agriculture and Processed Food Products Export Development Authority (APEDA)*, Ministry of Commerce, the Government of India, is an example in this direction.
- b. Besides, traceability initiatives have also been completed for *HortiNet*, *Peanut.Net*, *Basmati.Net*, *TraceNet*, *Meat.Net*, etc., by APEDA.

c. *HortiNet* has demonstrated the traceability solutions to crops viz. grapes, pomegranate, mango, vegetables (Bitter Gourd, Bottle Gourd, Cluster Beans, Curry Leaf, Drumsticks, Eggplant, Flat Beans, French Beans, Green Chilly, Ivy Gourd, Long Beans, Okra, Potato, and Round Gourd), Betel leaves, and citrus fruits.

d. *TraceNet* which works under the APEDA, collects, stores, and reports forward and backward traces, as well as maintains authentic information and related data by the operators/producer groups and certification bodies within the organic supply chain in India.

- Some good initiatives aimed at *promoting GI products* have been taken in the country, though the pace and the number of interventions are limited. Some of them are indicated below:

a. While launching the new logo for the GJ products, a new tagline for promotion *'Invaluable Treasure of Incredible India'* has been selected.
   o The Ministry of Commerce is working with the Ministry of Civil Aviation as well as the Ministry of Railway to arrange a display for GI-tagged products.

b. India's very first Geographical Indications (GI), Store of *Cashew Export Promotion Council of India (CEPCI)* was launched in 2019, at the departure terminal of Goa.
   o GoI is planning to open GI stores in other airports as well.

c. *Government e-Marketplace (GeM) Start-up Runway*, an initiative of GeM to provide access to the public procurement market and sell innovative products and services to government buyers was also launched.
   o Start-up Runway will enable them to conduct market trials with government buyers, seek time-bound feedback and gain realistic product, price comparison, and market valuation from potential buyers and investors.

d. *India's Foreign Trade Policy (FTP) 2021-2026*, which targets to achieve the exports value to USD 1.0 trillion by 2025, has recognised GI-tagged Agri-commodities as one of the growth drivers in the draft export policy which will help to gain competitive advantage in buyer driven global markets.
   o Two major initiatives proposed under the new FTP include
      ✓ Promoting *'District Export Hubs'* in each district and setting up district export promotion panels and preparing district export action plans to target small businesses and farmers.
      ✓ *'Correcting imbalances'* in India's international trade processes by creating efficient, cost-effective and adequate logistical and utility infrastructure, as well as working towards reducing the domestic and overseas constraints related to the policy, regulatory operational framework for lowering transaction costs and enhancing ease of doing business.

e. Another important step to boost indigenous toys production to support artisans and MSMEs is the government adopting *Toys (Quality Control) Second Amendment Order, 2020* which exempts goods manufactured and sold by artisans and those registered as Geographical Indication (GI) from Quality Control Orders.

Way Forward

- A few suggestions to expand the production level and also to link the rural-based GI-tagged products to major urban markets, as well as export destinations are made as follows:

a. *Awareness Creation*: There is a need to prepare a strategy to raise awareness about various GI products, and the difference between GI and non-GI products amongst local farmers, consumers and other relevant stakeholders.
   o APEDA, which organises buyers-sellers meet in different countries in virtual as well as in physical form to promote export of Indian agri-products, has recently started giving special visibility to GI products.

b. The Central Sector Scheme of promotion and nurturing of 10,000 Agri-based *Farmers Producers Organisations (FPOs)*, is being implemented through three national agencies, *NABARD, SFAC, and NCDC*, and a few other agencies.

c. Cluster approach based on *One District One Product (ODOD)* has been adopted to increase value addition, marketing, and exports which will benefit small, marginal, and landless farmers by giving access to technological inputs, finances, and better markets and prices for their crops.
   o The OPOD concept is in practice in *Japan* as *OVOP (One Village One Product)* and as *OTOP (One Tambon One Product) in Thailand* and reportedly has contributed positively to the income of the farmers in both the countries.

d. The government needs to make efforts for creating required infrastructures such as customs clearance facilities, laboratory testing facilities, pack-houses, and pre-cooling facilities, which would harness and boost the exports potential of GI products.

e. India needs to start negotiations with other countries very proactively, to make their markets available for GI-tagged products, especially agricultural products from India as about 111 out of 370 GI products registered in India are agricultural products.
   o Setting up an incubation centre for helping users/farmers/entrepreneurs for obtaining GI and traceability solutions of their produce may help GI products to grow.

Capacity Building of PSUs

Introduction

- In order to meet the training needs in the current dynamic scenario, it is imperative that there is synergising of resources and more active exchange of technical knowledge and other related ideas among PSUs.
- There is a need to bring about collaboration between training facilities of various PSUs and create a pool of shared resources.
   o As a result, Training and Capacity Building in Public Sector Undertakings is an area that is gaining importance, particularly due to rapid advancements in technology and other operational methodologies.
- To meet the training needs in the current dynamic scenario, it is imperative that there is synergising of resources and a more active exchange of technical knowledge and other related ideas among PSUs.
   o There is a need to bring about collaboration between training facilities of various PSUs and create a pool of shared resources.
   o This would also be in line with the **'National Programme for Civil Services Capacity Building' (NPCSCB)**being implemented by the Department of Personnel and Training.

Background

- There are 2561 operational **Central Public Sector Undertakings (CPSUs)** in the country, employing around 10 1akh people. Out of these CPSUs, 96 have been conferred the Ratna status among which 10 are Maharatna companies, 14 are Navaratnas, and 72 are Miniratnas.
- Since they are expected to perform on a competitive basis with prudent management, quality decision-making while ensuring accountability efficiency, and transparency, the need for world-class class training inputs cannot be overemphasised.
- Modern processes and capacity building in the form of functional competencies, skills, and attitudes will foster a culture of efficiency, competitiveness, integrity, and Probity will also curb administrative malpractices.

Training Facilities in PSUs

- Many of these Public Sector Undertakings, especially the larger ones with 'Ratna' status have their own state of-the-art training facilities which are used mainly for Training and Capacity Building of the employees working in these companies.
   o While most of these training institutes have some select core competencies in their operational field, some also individually cater to the development of managerial expertise like Leadership, Team building, Communication, Executive Development, Decision making, and other similar soft skills for their employees.
- As of now, there is no institutionalised system of collaboration between these training institutes and each one caters mainly to its own employees using in-house resources and some select outside resource persons.

Collaboration among these training institutes

- A successful collaboration between these training facilities owned by distinct PSUs will not only create cross-synergisation between them but also develop a vibrant pool of common resources to be shared with others.
  - o This collaboration would be most beneficial if it is done in a manner such that the distinct institutes complement each other's training capabilities in terms of their core competencies and also the general (managerial) areas of training.

National Programme for Civil Services Capacity Building (NPCSCB)

- Cabinet has approved the NPCSCB by setting up an *Integrated Government Online Training (IGOT)* portal.
  - o It essentially aims at the development of an integrated training infrastructure across services.
  - o One of its core guiding principles is to "create an ecosystem of shared training infrastructure including that of learning materials, institutions and personnel".

Centres of Excellence

- The premier training institutes of most of the bigger PSUs are equipped with the latest training infrastructure as well as human resources to cater to the needs of their personnel.
  - o Each of them has certain flagship programmes that they run for the senior management.
  - o Each has its own 'core competency' or specialised area of training. Invariably, the Core Competency areas relate to the PSUs area of functioning.

For example,

- ✓ *Oil and Natural Gas Corporation Limited (ONGC)* has a training institute that specialises in areas such as Drilling Technology, Geo- Data Processing, Reservoir Studies, Oil Field Equipment, etc.
- ✓ *Coal India Limited* has an institute in Ranchi which mainly deals with the training and development of executives.

Cluster Approach

a. **Geographical Clusters:** Geographical clusters could be identified where, in a single location, several training institutes from separate fields are located. This will not only prevent duplication of the process but also create uniform modules across institutes and standardise the training process.

b. **Thematic Clusters**: There may be different institutes offering similar core competencies. Tie-ups between such centres could help create *Thematic Centres of Excellence*.

Ethics and Moral Values

- Role of Public Sector Enterprises (PSEs) as agents of socio-economic growth and change, creators of formal and informal economic opportunities, providing social benefits through *CSR (Corporate Social Responsibility)* activities can help in mitigation of poverty, fulfilling the health and education needs of the underprivileged sections of society.
  - o Training inputs can help in developing a sense of responsibility towards nation-building.
  - o Goals of growth and development for all, fair and efficacious governance can only be realised if all stakeholders are enthused and trained in ideals imbued with ethics and empathy.
- In addition, the PSUs could use their CSR activities' locations and organise field visits to provide a holistic view of the nation-building process.

Conclusion

- To develop in economy like ours simply cannot afford to have its organisations working in silos without sharing resources a wing upon each other's strengths competencies. Training and Capacity Building is an area where a large amount of resources in terms of financial outlays, manpower, material, and other infrastructure is used.
- There is a requirement to create and develop an integrated training infrastructure across PSUs of the same sector and also different ones.
- The PSUs and Banks need to collaborate on capacity building, share resources, identify and strengthen core competencies.
  - o This will optimise resource utilisation and have threefold benefits of avoiding duplication of process, standardise training, and creating specialisation.

Har Ghar Jal

About Jal Jeevan Mission

- *Jal Jeevan Mission (JIM)* was launched in 2019 and it is a huge step in improving the quality of life in villages and improving public health. It is under implementation in partnership with all the States to make provision of tap water supply to every rural household of the country.
  - It is envisaged that by 2024, each household will have a potable tap-water supply in adequate quantity (55 lpcd) of prescribed quality (BIS: 10,500) on a regular and long-term basis.
  - The motto of the mission is that 'no one is left out' and every household in a village should be provided with tap water connection.
- To implement this mission, institutional arrangements at various levels have been made and States' Water & Sanitation/Public Health Engineering (PHE)/Rural Water Supply (RWS) departments are playing a central role.
  - They are helping Gram Panchayats and/or its sub-committee, *Village Water and Sanitation Committee (VWSC) or Pani Samiti* to plan, implement, manage, operate, and maintain its in-village water supply systems.
  - VWSCs/Pani Samitis are being empowered to take ownership of the programme.
- The total outlay of the Jal Jeevan Mission is Rs 3.60 lakh crore, out of which Rs 2.08 lakh crore is the Central share.

Collective Ownership and Action

- Jal Jeevan Mission is pivoted on the *73rd Amendment of the Constitution* that empowers Gram Panchayats with administrative control of water and related subjects.
  - It is a decentralised, demand-driven, and community managed water supply programme.
- Gram Panchayat (GP) or its sub-committees (VWSCs)/Pani Samiti across States and Union Territories play a key role in planning, implementation, management, operation, and regular maintenance of in-village water supply system.
  - It also plans and implements water source augmentation/Strengthening water conservation, and grey-water treatment, and re-usage of treated grey-water.

Prioritising Villages

- The Mission is providing tap water supply in quality-affected areas, especially in
- a. Arsenic & Fluoride affected habitations,
- b. Japanese Encephalitis/Acute Encephalitis Syndrome (JEI AES) affected districts,
- c. socio-economically backward Aspirational districts,
- d. drought-prone & desert areas,
- e. Sansad Adarsh Gram Yojana (SAGY) villages,
- f. SC/ST majority villages on priority.

Boosting Rural Economy

- *Village Water and Sanitation Committee (VWSC)* prepares a 5-year Village Action Plan for
- a. water and sanitation,
- b. ensuring long-term source sustainability,
- c. grey-water management,
- d. Water Conservation works.
- These *Village Action Plans (VAPs)* are co-terminus with *15th Financial Commission* period.
- Further, there is a provision that the VAPs to be implemented by dovetailing resources, viz. Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Swachh Bharat Mission-Gramin, JJM, District Mineral Development Fund (DMDF), Corporate Social Responsibility (CSR) funds, and community contribution, etc. Village Action Plans for about 3 lakh villages have been prepared by the VWSCs.

Generating Skilled People

- JJM is working towards making each village, a *Water, Sanitation, and Hygiene (WASH)* enlightened village. In every village, a cadre of 25-30 people to manage its water utility is being prepared.
  - The mission has started a capacity-building and skill development programme for such persons.
  - This is generating a vast pool of skilled people to operate village water utilities.

Women Empowerment

a. <u>**Role as a Water Manager:**</u> The rural women, who suffer the drudgery of having to travel long distances to bring water home will be saved from the ordeal.
  - ✓ This accords them a significant role in village water governance suiting their traditional role as water managers.
  - ✓ Thus it alleviating rural women of their drudgery in fetching water and bringing them ease of living

b. <u>**Role as a Custodian of Water Quality:**</u> Under the Mission, each village will have a cadre of 5 trained women formed to monitor the tap water quality provided in homes.
  - ✓ So far, more than 7.39 lakh women have been trained in water quality testing by using *Field Test Kits (FTKs)*.

c. <u>**Role in a village's wellbeing and prosperity:**</u> The training of VWSC women members has promoted village communities' self-reliance in assessing water quality and ensuring its portability thus helping households keep in check water-borne health concerns in rural areas.

<u>**Children's Health and Well-being:**</u> A campaign was launched on 2 October 2020 to ensure that tap water reaches every learning centre which includes schools, Anganwadi centres, and Ashramshalas.

- Efforts are made by every State to ensure tap water availability for drinking, cooking mid-day meals, washing hands, and usage in toilets.
- During Covid-19 pandemic, need for frequent washing of hands with soaps and maintaining hygiene was experienced by everyone.
- Providing tap water supply to all these learning centres is a great investment in the health and well-being of the future generation.
- In many schools provision for grey-water reuse and provision of rainwater harvesting have been made. This will go a long way to make the students WASH enlightened citizens.

Transparency and Accountability

- Transparency and accountability are two key pillars of any successful programme.
  - o Online progress of implementation and status of tap water supply in homes, schools, and Awes has been put in the public domain and can be accessed by anyone at *JJM Dashboard (https://ej alshakti. gov. inljj mreport/ JJMIndia.aspx).*
  - o It provides information about institutional arrangements like people managing various aspects of water supply in villages including water quality testing.
- *Village-level IT support* is being provided to monitor everyday water supply in terms of quantity, quality, and regularity along with a public grievance redressal mechanism.
- To ensure speedy transfer of money to RLB/PRls, States and UTs are advised to open an *escrow account* to receive a central allocation for JJM implementation.

Conclusion

- Jal Jeevan Mission is about the capacity building of the community in achieving water security. It truly anchors a village's peace and prosperity.
- Ensuring that every home has potable tap water supply in an adequate quantity of prescribed quality on a regular and long-term basis, is the cornerstone of Atmanirbhar Bharat.

Self-reliance in Energy Sector

Introduction

- Self-reliance manifests self-sufficiency in terms of economic activities and is least dependent on other economies.
  - o It tells of efficiency and efficacy in economic systems in attaining/providing the best for/to its citizen, out of the given economic resources.
- Atmanirbhar Bharat is the new currency to make the country self-sufficient and enhances global positioning of India and marks its contribution in the global eco.
  - o It is creating infrastructure, systems and promoting innovation in achieving efficiency in terms of production and consumption and also enhancing people's choices and capabilities.
  - o It focuses on how to contribute the best for self (India) and to others (world) as a part of ' Vasudhaiva Kusumbakam.

Background

- India is the 3rd largest energy producing and consuming country in the world. The energy consumption pattern in India has been changed on account of better standard of living and high propensity to consume and also the overall energy use is doubled since 2000 due to macroeconomic factors like expanding economy, population, industrialisation and urbanisation to a great extent.
- The Government of India along with the State governments have implemented various schemes to boost the energy sector, especially renewables. With the ongoing 'Azadi Ka ilmrit Mahotsav: India at 75 Years of Independence', the government focuses on making India a leader in green and clean economy.
  - It has presented various schemes including the recently launched **'National Hydrogen Mission'**.
  - These schemes are especially designed in meeting the desired goals based on the *five principles* :

1. Intent,
2. Inclusion,
3. Investment,
4. Infrastructure,
5. Innovation.

Importance of Renewable Energy

- Renewable energy is becoming more relevant due to diminishing crude oil reserves, rise in prices of petroleum/fossil fuels, and due to global warming.
  - It is a better and more viable alternative to fossil fuels, which is the need of the hour for a cleaner and greener environment.
  - Over the years, demand for and consumption of energy has increased in the form of electricity and transport fuels. So to reduce the amount of pollution and CO2 emission and to curtail the environmental hazards, the production of energy from renewables is very much necessary.
- Renewable energy initiatives will help in combating global warming and livelihood threat which in turn will set the path towards a greener and cleaner economy.
- Globally, India is one of the leaders in the production of renewable energy and is playing a valuable role in contributing to a global green economy. There is a need to raise awareness of using renewables as a source of energy.

Renewable Energy Initiatives

- Renewables including *solar, wind, hydro, biofuels, and green hydrogen* are the major sources of energy that lead to a *low-carbon economy*.
- **a.** **Solar Energy:** To boost India's renewable energy production and usage, the government has taken various initiatives especially for the advancement of solar energy. The government is providing subsidies and other incentives to enhance capacity of electricity production.
  - **'Rooftop Solar Energy'** is one of such schemes introduced for enhancing the capacity of electricity generation.
  - India has also introduced `PM-KUSUM' and 'AJAY'` in achieving sustainable development.
- **b.** **Wind Energy:** India is privileged to have coastal regions which provide ample opportunities to harness wind energy production on a large scale.
  - Among all the renewable resources, wind energy contributes 40.8% as per MNRE Report 2021.
  - Due to the intervention of government as well as private players, wind power production has increased from 10.9 capacity GW in 2009 to 30.37 capacity GW in 2020.
- **c.** **Bio-Energy:** Bio-energy is also a great source of renewable energy, considering its large availability and multipurpose uses.
  - The Government promotes various schemes for biogas production, including the **'New National Biogas and Organic Manure Programme' (NNBOMP)** and **'Biogas based Power Generation and Thermal Energy Application Programme' (BPGTP)** and these schemes contribute around 10170 MW of electricity across India.
  - It is proposed to set up 5,000 compressed biogas plants across India by 2023.
- **d.** **Hydro Energy:** Hydro energy is economically exploitable and has high potential to harness as not only does it provide energy but also strengthens the ecosystem by providing additional benefits of irrigation, flood barrier, drought saviour, recreation, and tourism.
  - It has higher efficiency (over 90%) than other renewable sources.

National Hydrogen Mission
- It was announced in August 2021 to produce carbon-free fuels from renewable resources and to make India a global hub of production as well as export of green hydrogen.
- The ultimate aim of this mission is to attain self-reliance in energy production and to achieve the set target by 2047 so as to celebrate the 100 years of independence.
- This is to increase the usage of natural gas in the economy from renewable sources.
- To achieve this target, a roadmap has been set for making India self-reliant in energy sector for which a Pan-India network of CNG and piped-natural gas is laid out which will help in achieving 20% ethanol blending target.

Green Hydrogen
- Hydrogen is produced by splitting water into hydrogen and oxygen, through proton exchange membrane electrolysis and is also produced by steam methane reforming which utilises fossil fuels.
    - So as to make cleaner and greener environment, the government has decided to produce *green hydrogen* through renewable electricity and electrolysis which is expected to be achieved by 2050.
    - This will help in reducing the burden of import dependency and will strengthen the mission for gas-based sustainable development.
    - This will help in keeping the cost under control which will aid in decarbonize the energy-dependent sector Production of hydrogen from renewables is-not only cost-efficient but also carbon-free with the least adverse effects on human life and livelihood.

SDGs and Renewable Energy
- Sustainable Development Goals can accomplished only when Social, Economic, and Environmental (SEE) dimensions are addressed in a balanced and sustainable manner.
- To find out the nature and degree of association between SDGs and renewable energy, we have used a 0-3 point scale for matrix mapping. The degree of associations is mapped based on the factors that are derived from the SDGs descriptions and renewable energy.
- SDGs can be better achieved through advancement in renewable energy sector, and hence energy sector should be given top priority in the policymaking and budgetary allocation.

Sectoral Overview
- The Government of India has set up the *Ministry of New and Renewable Energy (MNRE)* to promote renewable energy and set a target to attain the capacity of 227 GW by 2022, including 114 GW from solar, 67 GW from wind, and other including bio and hydro energy.
    - It is proposed to set up 5,000 compressed biogas Hants across India by 2023.
    - The renewable sector is projected to attract investment worth USD 80 billion in the next couple of years.
    - It is estimated that 49% of total electricity will be generated by renewable energy to be achieved by 2040.
    - Further to strengthen the sector, the Government is focusing on setting a policy framework to provide secure and affordable clean energy for its people.

Benefits
- Increasing the use of renewable energies will lead to low dependency on fossil fuels that will in turn help in decarbonisation by replacing carbon-based industries.
    - This will help in better ecosystem with less pollution.
- Usage of renewables will help in producing eco-friendly energy which will make India energy secure and energy independent.
    - It will help in export that will increase countries' foreign exchange earnings and strengthen India's global positioning.

Challenges
- Renewable energy initiatives also face some inherent challenges which may hinder the target achievement. The major challenges are
a. Affordability for consumers,
b. Financial stability for DISCOMS (Distribution Companies),
c. Integration issues,
d. Gaps or barriers in regulatory and market frameworks,

e. Uncertain cost-benefit outcomes,   f. Issues in power system flexibility, etc.

State-wise Performances

- States like Tamil Nadu, Rajasthan, Gujarat, Karnataka, Andhra Pradesh, Madhya Pradesh, Maharashtra, Telangana, Punjab, and Kerala contribute to renewable energy more than the national average (8.2%).
- Ten States of India contribute 97% of total solar and wind energy.
- States rich in renewable energy are also found advanced in their power sector development.
- On the contrary, other States are lacking in green initiatives and suffers from integration and technical issues.

Way Forward

- Green energy has tremendous potential in contributing to income, employment, and entrepreneurship and undoubtedly fosters sustainable development.
- In addition to job creation and income generation, it opens up opportunities/avenues for investment and markets for new products and services.
- In view of the increasing demand for electricity by households and corporates, the production of renewable energy as a substitute for fossil fuels energy is essential to make a carbon-free economy.
- India must exploit solar and wind energy, and especially the green hydrogen energy in its electricity system to meet the ever-increasing demand of the people.
  o It will be possible primarily by addressing the demand flexibility, plants flexibility, and storage & grid flexibility along with the market and regulatory support.

Farm to Fork
Introduction

- The Indian agricultural sector is largely production-oriented and plays a pivotal role in the Indian economy.
  o About 55% of the total workforce of the country is still engaged in agriculture and allied sector activities, contributing about 18% to the country's Gross Value Added (GVA) for the year 2019-20.
- Despite the pandemic-led contraction in other sectors, the agriculture and allied sectors have shown a robust growth rate of 3.4% at constant prices during the year 2020-21.

Farm to Fork: In a typical farm to fork value chain, there are various components like production, Post-Harvest Infrastructure (PHI), processing and value addition, distribution, marketing, and consumption.

- The role of the farmer hitherto was limited to production and the other functions in the value chain like storage, distribution, and selling of produce were taken up by intermediaries.
- With the adaption of technology and the emergence of direct-from-farm concepts, farmers are directly connecting with the markets and is covering higher margins than conventional selling to the intermediaries.

Production Phase

- Despite being one of the top producers of agricultural commodities across the globe, India's performance in terms of productivity is low compared to other countries due to subsistence farming.
- The recommendations from NITI Aayog to improve farm productivity are classified into six broader aspects that need immediate attention to lift the economic status of millions of farm families.

These are

1. Quality Inputs,   4. Irrigation & Electricity,
2. Technology,   5. Farm Credit,
3. Land Fragmentation,   6. Crop Insurance.

Initiatives

- Initiatives like Soil Health Management under National Mission for Sustainable Agriculture, Mission for Integrated Development of Horticulture, National Mission on Oil Seeds and Oil Palm, Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), and scientific techniques like bio-stimulants are being implemented.

Objectives

- To make agriculture more productive, sustainable, adopt comprehensive soil health management practices
- To optimise utilisation of water resources on the farm.

1. Agricultural Credit

- An increase in the agricultural credit flow has been raised to Rs.15 lakh crores, ensuring convenient access to loans at concessional rates.
- These programmes will facilitate access to quality inputs, micro-irrigation techniques, and farm credit which boosts farm productivity.

Kisan Suvidha Portal

- Technology is massively empowering the farmers, from giving information on seeds, soil, fertilisers, weather reports, etc. through the *Kisan Suvidha Portal*.

Benefits

- The use of high-quality certified seeds together with neem-coated urea and bio-stimulants has shown a phenomenal increase in the yield per hectare.
- The increase in income is factored-in by two parameters — quantity and quality of the yield.
  o The use of high-quality inputs not only produced a higher yield per hectare but also a higher quality of the produce in terms of nutrients.

Pradhan Mantri Krishi Sinchayee Yojana (PMKSY):

- Effective use of irrigation at the field level can improve on-farm water utilisation, reduce water wastage, and expand the cultivable area under assured irrigation. The adoption of water saving technologies can recharge the aquifers and promotes watershed development.
- The *PMKSY* aims to boost productivity by ensuring irrigation facilities.
- The objective is to ensure access to efficient water conveyance and precision water application devices to agricultural farms through the programme *'Per Drop More Crop'*.

Impact

- The combined effects of implementing high-quality inputs and precision irrigation at the farm level generate higher returns by almost 50-90% to the farmer's income considering the impact of external factors to be minimal.

Paramparagat Krishi Vikas Yojana

- To address the gaps and encourage organic farming, the Government of India launched *Paramparagat Krishi Vikas Yojana in 2015-16* to support farmers from production to certification and marketing.
- Post-harvest management support including processing, packing, marketing is made an integral part of this scheme to encourage organic farmers.

Challenges

- The organic business has had to face challenges in terms of high production costs such as
a. Land preparation costs, preparing manures and organic fertilisers.
b. High labour costs.
c. Marketing costs.
d. Low demand from the consumers.

Post-harvest Loss

- Post-harvest losses are primarily caused by a failure in the handling and connecting of food produced to consumption points or markets.
  o According to the economic survey 2018-19, India's global position in post-harvest losses is at 70 of 125 nations.
  o As per the estimates, the total food loss in agricultural products ranges between 4-10% for cereals, pulses, and oilseeds whereas 5-16% for fruits and vegetables.
- As per the latest estimates by the *Dalwai Committee report*, India loses approximately Rs.92650 crores on account of PHL due to rejection at the farm gate and delays in the distribution process.

Initiatives Taken

- Under the umbrella *scheme Pradhan Mantri Kisan SAMPADA Yojana*, the Government is implementing various schemes which include Mega Food Parks, Integrated Cold Chain, and Value Addition Infrastructure, Infrastructure for Agro-processing Clusters, and Creation of Backward and Forward Linkages.
- The Government has launched *Production Linked Incentive (PLI) Scheme* with an outlay of 1.97 lakh crores in 13 key sectors, including the food processing sector, for enhancing India's manufacturing capabilities and improving exports.

Phases of PHL

The post-harvest value chain is driven by 4 phases:

1. **Harvesting and primary processing**
- Currently, primary processing carried out by farmers is limited to small-scale efforts such as de-husking, deseeding, peeling, and drying in some crops, and processing for products such as jams, jellies, dried fruits, and chili powder.

2. **Storage and crop protection**
- Besides the harvesting losses, a significant proportion of post-harvest losses are due to decay, diseases, and pests.These challenges can be targeted with proper storage infrastructure and efficient crop protection practices.
- The Government is promoting scientific storage facilities for individual farmers, groups of farmers/growers, registered FPOs in rural areas through the scheme of "Agricultural Marketing Infrastructure (AMI)", which is a sub-scheme of Integrated Scheme for Agricultural Marketing (ISAM) and Gramin Bhandaran Yojana (GBY).

3. **Processing**
- The food processing industry is one of the largest industries in India and ranks fifth in terms of production, consumption, and exports. However, the processing of perishable products in India is just below 10%, which is very low when compared to other countries".
- Besides food losses, the absence of processing facilities at the farm gate leads to distress sales by farmers, as the benefits of value addition mostly accrue to middlemen and large private sector firms.

4. **Market linkages**
- The food processing sector has also received a boost due to changing consumer preferences and rising demand for Indian products in international markets, leading to a recent spurt in private sector interest.
    o Increased participation from the organised private sector combined with the hub and spoke model for processing activities can become a viable and efficient model to expand direct engagement between the industry and small and marginal farmers.

Way Forward

- Effective utilisation of the resources can reduce the wastage of resources and generates higher returns by producing value-added products.
- Indian farmers have traditionally followed certain practices. By integrating the post-harvest management methods, farmers will overcome the distressed selling by utilising storage and processing facilities which can yield higher returns.
- Through knowledge-based inputs, informed decisions can be taken up by the farmers to implement various scientific methods at the farm level, and by adopting effective postharvest management techniques, farmers can upscale the productivity and develop new integrated fanning approaches while doubling their income.

Recharging Economy

Introduction

- The current crisis caused due to corona virus pandemic have been negatively affecting the economy of most countries of the world.
- The fear of a higher probability of serious breakdown of the health infrastructure has pushed the countries to impose various measures on industrial as well as the societal level to control or rather reduce the destruction the pandemic may infuse.
- It was more critical for countries like India to think about robust financial assistance to be provided to various sectors considering the scarcity of economic resources we hold.
- *Atmanirbhar Bharat Abhiyaan or Self-reliant India* is one such significant initiative by the Government.
    o It aims to make the country and its citizens independent and self-reliant in all aspects.

o The five pillars of Atmanirbhar Bharat are

1. Economy.
2. Infrastructure.
3. System.
4. Vibrant Demography.
5. Demand.

Effected Sector of Indian Economy

- The majorly hit sectors of the Indian economy consisted of areas like local manufacturing units, recreation, real estate, education, hospitality, logistics, Information Technology, retail, aviation, etc.
  o As the services industry contributes the highest to the Indian GDP, the current state of services was leading to a collapse of the economic growth.
  o The MSME Sector of the country were the worst to get affected by the restricted business activity in terms of import-export, transport, supply chains, ultimately leading to negligible or very low industrial and retail consumption.

Atmanirbhar Bharat Abhiyaan

- On May 2020, Govt came out with a comprehensive all-inclusive stimulus package which is called `Atmanirbhar Bharat Abhiyaan'.
  o This package containing special economic provisions was aimed to provide assistance upto Rs 20 lakh crore for various segments of the society including labourers, cottage industry, middle class, MSMEs, industries, and others.
  o This is almost equivalent to 10% of the country's GDP.
  o This included driving focus towards local production and pushing the nation towards self-sustenance and uplifting the country's global economic positioning.
- Specific focus areas under the *Atmanirbhar Bharat Yojana* includes:

Part I: Businesses including MSMEs
Part 2: Poor, including migrants and farmers
Part 3: Agriculture
Part 4: New Horizons of Growth
Part 5: Government Reforms and Enablers.

Highlights

a. **Support to MSMEs:** Businesses and MSMEs required additional financing to meet their operational demands like paying off existing loans, buying raw material, and restarting the business activities.
  o This was aimed at providing Rs 3 lakh crore worth liquidity for such players in the form of working capital at concessional interest rates.
  o The businesses will not have to provide any collateral to avail such funding.
  o This scheme emergency credit is supposed to provide financial aid to more than 45 lakh MSMEs in India.
b. **Support to Non-banking and other financial institutes**: Under this package, a special scheme focusing on the liquidity needs was taken into consideration wherein Government provides assistance upto Rs 30,000 crore vesting it into various debt instruments of such funding bodies in the primary market and secondary.
  o Further, such entities having low credit ratings are given special consideration through a partial credit guarantee scheme aiming to infuse liquidity to 45,000 crores.
c. **Tax-related measures**: A reduction of upto a quarter in the existing rates of TDS and TCS disposable funds upto Rs 50,000 crore.
  o Deadlines to be followed for various compliance-related aspects like income tax return filing, etc. were extended by a few months to provide enough time.
d. **Support to migrants, farmers, and poor**: There was a huge migration of labourers within different States amid the declaration of lockdown and consequential job loss.
  o The State governments were directed to utilise funds under State Disaster Responses Fund along with central government's contribution to the tune of Rs 11,000 crores for providing food, shelter, and water to the migrants.
e. **Reforms related to Ease of Doing Business**: In the last few years, sustained reforms related to doing business smoothly in India has uplifted its global ranking to 63 in 2019 from 142 in 2014.
f. **Insolvency and Bankruptcy Code (IBC)-related measures**: For providing protection to MSMEs, the minimum threshold was raised to Rs 1 crore from the earlier 1 lakh to start the proceeding for insolvency.

- o Central Government has been given the power to exclude debt related to the pandemic from the definition of 'default' for the purpose of initiating insolvency proceedings.
- o Various reforms are implemented in the wake of the current pandemic to address the distress caused in the economy and business.

Reviving MSMEs

Introduction

- The contribution of the MSME Sector is 31% to the overall GDP of the country, out of which 6.1 % is from the manufacturing sector and the rest from the trade and service sector.
- MSME's contribution to manufacturing output is around 35% while contribution to total export is 48%.
- There are around 33000 registered MSME exporters in India.
- The total number of MSME units in India is 6.34 crores and the sector employs 11.75 crores people which constitutes 40% of the workforce in India. Unfortunately, only 14% of MSMEs have a formal source of finance.
- Their Non-performing assets (NPA) are around 8 to 11%, which is very high.

MSME Criteria

- The following criteria for the categorisation of micro, small, and medium firms are in force, with effect since 2020.
1. *A micro-enterprise*, defined as an **investment**in Plant and Machinery or Equipment of **less than one crore** rupees and **revenue**of**less than five crore rupees.**
2. *A small firm* with an **investment**in Plant and Machinery or Equipment of **less than ten crore rupees** and **revenue** of **less than fifty crore rupees**.
3. *A medium-sized firm*, with an **investment** in Plant and Machinery or Equipment of **no more than fifty crore** rupees and a **turnove**r of **no more than two hundred and fifty crore rupees.**

Initiatives

a. **GECL Scheme:** *Collateral-free Automatic Loans for Businesses, including MSMEs Guaranteed Emergency Credit Line (GECL) Scheme*, announced in February 2020, helped businesses, including MSMEs, with a revenue of up to 100 crore and outstanding credit of up to 25 crores .
   - o A financial support provided in the form of a sub-debt credit issued by the lending institution to the promoters of MSME units up to 15% of the promoter's share, or Rs 75 lakh, whichever is less was another fillip.
b. **Production-Linked Incentive (PLI) Scheme :** The Finance Minister declared expenditure of Rs.1.97 lakh crores for the *PLI Schemes for 13 important industries* in the Union Budget 2021-22.
1. The first three PLI Schemes in Electronic/ Technology Products,
2. Pharmaceuticals Drugs,
3. Telecom & Networking Products.
   - o PLI provides incentives for increased sales (over the fiscal year 2019-20) from items made in domestic facilities.
c. **Start-up India Seed Fund Scheme:** The Scheme supports companies with proof of concept, prototype development, product testing, market entrance, and commercialisation.*The Seed Fund* is distributed to qualified companies across India via approved incubators.
   - o Grants of up to Rs.20 lakhs are provided for the validation of Proof of Concept, prototype development, or product testing.
   - o Investment of up to Rs.50 lakhs for market entrance, commercialisation, or scaling up via convertible debentures, loans, or debt-linked securities.
- In the fiscal year 2020-21, the Government of India purchased products worth around Rs.1.25 lakh crores, of which approximately Rs.40000 crores came from the MSME sector.
- *International Cooperation scheme* provides 100% of space rent paid to MSME units, limited to Rs.3 lakhs.
- Collateral-free loans for businesses, including MSMEs are also provided under *Atmanirbhar Bharat Abhiyaan*.

Direct -to-Consumer Model

Introduction

- Before the advent of large modern economies and consequently, globalisation, individuals around the world preferred buying locally, and in fact that was the only channel of economic activity known to man marked by the low development status of transportation and communication platforms.
    - What has now become an economic model, **'direct-to-consumer' (D2C)** was the only way individuals and businesses ran economic activities for a long time.

Background

- The manner in which direct-to-consumer models function now is vastly different from how they functioned before modem economies were built with the onset of the internet, wider and diverse consumer base, specialised firms and industries, and the general development over the years.
    - The model was prevalent then because most businesses operating around the world were small in size, often limited to one township or locality.
- The model gained prevalence again when small businesses increasingly gained momentum again around the economies of the world.

Direct-to Consumer Model in India

- Direct-to-consumer became a part of India's economic system via a positive phenomenon, called Atmanirbhar Bharat.Self-reliance has several different meanings in several different contexts and the context India chose relied heavily on digitisation.
    - Digital India has, thus, been an integral part of Atrnanirbhar Bharat, and it is Digital India that has enabled and continues to facilitate the Indian direct-to-consumer market.
- The most popular and successful consumer brand start-ups of India have followed the direct-to-consumer model and beyond marketing and production strategies. It is certainly mass digitisation that has contributed to the success of these firms.
    - As of 2021, D2C start-ups of India have been able to raise USD 783 million only in the first 7 months of the year.'

Significance of D2C Model

- The model *allows businesses to experiment with distribution models* and change them according to the fast-changing needs of society and the economy.
- D2C also *facilitates better consumer insights owing to the close connection between consumers and producers*, allowing for smooth feedback and review mechanism.
- *Product differentiation* is another feature that the D2C model facilitates when sellers have the power to make immediate changes in the consumer interaction setup.
- The D2C model also facilitates *easy liquidation of business in a situation of failure*, offering a relatively convenient exit to entrepreneurs who can then move their capabilities to other, more productive businesses, causing minimum loss to the individual and economy.

Impacts of Digitisation on D2C Model

- Digitisation has powered grassroots entrepreneurship by giving power to business owners to create their own terms of business and reach consumers without using extensive capital for building physical infrastructure.
- Essentially, D2C, through digitisation, has shortened the time it takes for a business to hit break even by reducing the cost side of the equation and enabling business owners to make quick profits.
    - Success, when measured purely on profit parameters, can now be achieved sooner by an entrepreneur owing to the reduced non-monetary investment, time.
    - More young entrepreneurs feel empowered to take up entrepreneurship because the time input does not contradict with responsibilities of these young founders towards their families.

Digital Payment

- When speaking of enablers, a niche segment of digitisation, digital payments has had a tremendous impact on the success of online retail.

- o While the sellers had to bear the cost of manufacturing and partly the cost of delivery, the buyers were free to exit the contract at any point with the cash-on-delivery system.
  - o The buyers essentially had no risk share in the contract.
- Digital payments system empowered entrepreneurs to distribute the risk in an economic contract by imposing monetary liability on buyers as well.
- While the online D2C market has been facilitated by businesses like the digital payments industry, the D2C market itself has created additional business segments in the economy like logistics start-ups that go beyond wholesale deliveries to reach the doorstep of the consumer.

Way Forward

- With Covid-19 bringing out the constraints in our economic system, D2C, particularly via digital platforms, presents an alternative to traditional business models around the world.
  - o An alternative that is flexible, low cost, and easy to reconsider in case of failure.
  - o D2C will be a USD 100 billion market in India by 2025.
- These factors, coupled with further digitisation across the country and India's significant population, make India a potential hub for the global D2C industry in the near future, with plenty of opportunities for sellers, buyers, and investors, and all this started with an ambitious move towards self-reliance, Atrnanirbhar Bharat.

Women Entrepreneurship

Introduction

- Women's entrepreneurship has grown rapidly, earning widespread acceptance among Industries.
- According to a study, women's entrepreneurial motivation determines the impact on entrepreneurial success. The entrepreneurial motivational variables include

a. Ambition,
b. Skills and experience,
c. Family support,
d. Market potential,
e. Independence,
f. Government subsidies,
g. Work satisfaction.

- A woman entrepreneur is the one who assumes dominant financial control (minimum financial interest of 51 per cent of the capital) in an enterprise.
- With the constant expansion of the Indian start-up ecosystem, an increasing number of women are pursuing the entrepreneurial dream and succeeding in their businesses.
  - o According to the National Sample Survey, women entrepreneurs account for only 14% of all enterprises in India. The majority of the businesses are self-funded and operate on a small scale.

Challenges

- While the route of entrepreneurship itself is fraught with difficulties ranging from fundraising and financing to marketing, training, government backing, creativity, and idea generation, here are some of the unique problems experienced by women entrepreneurs.
- The demands of work and personal commitment can put women under a lot of stressful responsibilities.
- *Uncertainty* is an important concern for women. Women have to work in the male-dominant world facing discrimination and social stigma.
  - o Various laws and policies have created a favourable business environment for women but the changes have not been implemented.

- One of the challenges faced by women entrepreneurs is a *less established business network*, along with societal and traditional constraints.
  - These factors restrict women's participation in the business sphere.

Government Initiatives

- Women Entrepreneurs play an important role in the growth of the economy so there is a need for favourable environment that motivates women to engage in entrepreneurial activities.
- The Government of India has framed various training and development cum employment generations programmes for women to start their ventures.
1. *Specific target group:* It was suggested to treat women as a specific target group in all major development programmes of the country.
2. *Developing new equipment:* Efforts should be made to increase their efficiency and productivity through appropriate technologies, equipment, and practices.
3. *Marketing assistance:*It was suggested to provide the required assistance for marketing the products produced by women entrepreneurs.
4. *Decision Making Process:* It was also suggesting to involve the women in the decision making process.

Organisations that supporting women to become entrepreneur

1. *The Women Entrepreneurship Platform (WEP):* The Women Entrepreneurship Platform (WEP) was launched by NITI Aayog with the motive of providing an ecosystem for upcoming young women entrepreneurs across the country.
   - NITI Aayog has partnered with Small Industries Development Bank of India (SIDBI) to promote and implement this initiative.
2. *Pradhan Mantri MUDRA Yojana:* This is one of the top schemes launched by GoI to support and encourage women entrepreneurs who are looking to start a small business with minimum efforts such as beauty parlours, retail shops, or tuition centres.
3. *Stree Shakti Loan:* This is a scheme run under SBI to support women entrepreneurship by providing certain concession.
   - To avail of the Scheme, women entrepreneurs have to first enrol themselves in the Entrepreneurship Development Programme (EDP) - a training programme initiated to develop entrepreneurial skills required to run a business successfully.

Steps which may be taken

1. Different training programmes should be conducted at minimum prices or free of cost to develop entrepreneurial skills in women.
2. Establishment of institutes providing free quality education to women right from childhood and further for higher education.
3. To provide financial aid to promote entrepreneurial engagement.
4. To spread awareness of incentives and schemes provided by the government.
5. To minimise documentation and make procedure simple for availing schemes.

Conclusion

- A woman plays multiple roles in life finding it difficult to stay motivated and work hard for her venture ascertaining to the societal taboos she encounters.
- There is an urgent need for improvement in initiatives and contributions which could be taken into deliberation for progress and development of woman as an entrepreneur by providing her with special training facilities for polishing her knowledge, talents and skill set.
- The Atmanirbhar Bharat Vision of innovation, self-sufficiency, and enterprise has yet to reach the rural hinterland, where hundreds of millions of women have the potential to reach the next level.

Police Reforms

Introduction

- Police as being a part of the administrative machinery of the State to protect life and property came into existence with the inception of civilised society. It was considered the primary tool of the state/ruling class.

- o The 'police' connotes a system of administration or regulation, but the word is now generally used to indicate the organised body of civil officers in a place whose particular duty is the preservation of law and order.
- The present Police System structurally and functionally owes its existing structure to the various Acts and Enactments promulgated by the colonial rulers.
  - o The Indian State has retained, consolidated, and expanded the inherited police structure.

Historical Background

Ancient Period: Policing in the ancient period in India was intricately concurrent with the institutions of religion, community, and ethics.

- There are several references in ancient texts of India which indicate the existence of a specialised unit to deal with the detection of crime and offences against the State.
- We get glimpses of a city police organisation in the Arthashastra of Kautilya.
- The indigenous Police System in India was organised on the basis of land tenure and also on the collective responsibility of the village community.

Medieval Period: Under the Muslim rule in North India in the twelfth century, the Police System evolved slowly but steadily.

- The centre of power and political activity was the Sultan.
  - o *Faujdar*, being the head of the criminal justice delivery system at the provincial level, was entrusted to maintain peace and security.
  - o *Kotwal* was the magistrate, head of the police.
  - o *Chowkidar* was responsible for the village peace and order under the local landholder or the village headman. The chowkidars were maintained by the villages themselves and were paid remuneration out of the share of the crops.

The Colonial Period: As the grip of the British tightened over the Indian Territory, issues of security of trade and property necessitated some kind of police arrangements.

- Through various trials and error, the British perfected a Police System which served them throughout their colonial rule in India.
- *Warren Hastings, in 1772*, established *criminal courts* as a measure to suppress and prevent violent crime.
- In *1792, Lord Cornwallis*, took police administration out of the hands of the large landowners (the zamindars) and established in their place a police force responsible to agents of the Company.
  - o Districts were divided into parts and over each, a police official, known as a *Darogha*, was placed.
  - o *The kotwal* remained in charge of police administration in the towns.
- These reforms however did not yield desired results.
- A *Police Commission* was appointed in *1860*.
  - o The purpose of the Commission was to reorganise the police department, to make it more effective and efficient.
  - o The Commission recommended the abolition of the military police and the establishment of the single uniform civil police force which would be under the provincial government.
  - o It resulted in the enactment of the *Police Act (Act V) of 1861*. It is the basic foundation of the present-day Indian Police.

The Police Act, 1861

- A bill passed on 16 March 1861, came into force as the Indian Police Act on 22 March 186l.
- The *Police Commission of 1860* established the following principles of police organisation:
- a. Military police were to be eliminated and policing was to be entrusted to a civil constabulary;
- b. Civil police were to have their own separate administrative establishment headed by an inspector-general in every province;
- c. The inspector general was responsible to the provincial government as the superintendent was to the civilian collector;
- d. The superintendent was to supervise village police.
- The Act was the emphasis to improve village policing which was to be under the supervision and control of the local magistrate.
  - o It was also recommended that the salaries and remuneration of the police should be improved and made more equitable with that of the military forces.

o In 1892, *the Provincial Civil Service* was created.

'Indianization' of the police service

- In 1902, Lord Curzon constituted another Commission to look into the functioning of the Police System and to suggest effective measures to ensure prevention of torture of police, better magisterial supervision over police, and several other allied matters.
  - o It recommended that educated Indians be admitted to police organisation at the officer level.
  - o A new rank was formed especially for *Indian officers- Deputy Superintendent of Police*, which was although one rank junior to the Superintendent, belonged to the highest rank of the Provincial or subordinate service.
- In 1920, Indians were allowed to enter the higher ranks of the Police through an entrance exam which was to be held in India as well as in England.
- *Lee Commission* was formed in 1924 through which recruitment shifted in favour of Indians.

Police History in South India
History of Police in Madras Presidency

- South India, as we can discern from historical evidence of the Vijayanagar Empire had an evolved policing system.
  - o *Kavalkars* were originally State appointees who also acted as local auxiliaries.
  - o They were, unlike the *taliyaris*, responsible for several villages and had the right to collect protection fees (kaval) for the task they performed as protectors.
  - o They became predatory and corrupt assuming the role of 'robber police'.

The Madras Police Act of 1859

- The Act was the total integration of the police force with the provincial State structure. Police was organised on a provincial, rather than an all India basis.
- Through this Act, "three levels of supervision and control was enacted.
1. The supervision of the civil administration over the police department;
2. The supervision of European officers over Indian subordinates;
3. A rigid hierarchical division between the superintendency at the top, inspectorate in the middle and constabulary at the bottom.

Special Police Force

- Two major striking forces were formed in *the Madras Presidency- the Malabar Special Force* and the *East Coast Special Force*.
  - o Both the forces were specialised, well trained, disciplined, and armed with latest weapons.
  - o They may be called the harbingers of today's paramilitary forces.
- With the spread and aggressiveness of the Quit India agitation in 1942 and the onset of the Second World War in 1939, the government perforce had to increase the strength of the police reserves as well as paramilitary forces.

Police Reforms

- 'Police' and 'Public Order' are State subjects under the *Seventh Schedule of the Constitution* of India.
- However, the Government of India, in September 2017, approved implementation of umbrella Scheme of *"Modernisation of Police Forces (MPF)"*.
  - o This Scheme has two verticals –
    - ✓ Police Modernisation & Security Related Expenditure (SRE) & includes central sector sub-schemes such as Crime and Criminal Tracking Network and Systems (CCTNS) project and e-Prisons project, which have been made operational in all the States/Union Territories.

Left Wing Extremism

- The Government also implemented *Special Central Assistance (SCA)scheme* to undertake development interventions in *Left Wing Extremism (LWE)districts*.
  - o This scheme also includes centrally sponsored sub-schemes of *'Assistance to States for Modernisation of Police'* and *'Assistance to States for Special Project/Programmes for upgradation Police Infrastructure'* to assist State Governments in modernisation of their police forces.

- To combat Left Wing Extremism, the Government, in 2015, had approved *'National Policy and Action Plan'*, which includes a multi-pronged approach covering areas of security, development, ensuring rights and entitlements of tribals/local communities, and perception management.

KURUKSHETRA

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Skilling for Future: Reaping Demographic Dividend for Aatma Nirbhar Bharat

Introduction

- India has set an ambitious goal of becoming a $5 trillion economy. One of the pillars of such a transformation is its youth power.
  - o With nearly two-thirds of its population in the working-age group, India could benefit immensely from this demographic dividend provided the youth are empowered with the right skills.
- The year 2014 marks an important milestone in the Indian skilling evolution when a dedicated ministry for skilling (MSDE) was launched - a vision to transform India into the skill capital of the world was set.
  - o *Skill India mission* and the recently launched *National Education Policy 2020*, with their several innovations and bold reforms, are concrete steps in this direction.

Background

- At present, India enjoys a unique phase of demographic transition where the working-age population is larger than the number of dependents and thus allowing India to reap the benefits of this demographic dividend.
  - o 55.8 percent of the Indian population is in the working-age group of 20-59 years which will peak at 58.9 percent in 2041.
  - o India's working-age population is projected to grow by roughly 9.7 million per year during the decade 2021-31 and 4.2 million per year between 2031 and 2041.
- As per a 2014 government report, India faced a shortage of well-trained, skilled workers.
  - o It was estimated that only 2.3 percent of the workforce in India had undergone formal skill training as compared to 68 percent in the UK, 75 percent in Germany, 52 percent in the USA, 80 percent in Japan, and 96 percent in South Korea.

Historical Perspective

- An elaborate system of vocational system of education flourished wherein master craftsmen and artisans taught their skills to students who worked as an apprentice under them.
  - o An equal emphasis on vocational education was at the core of the teaching and learning at the world-renowned universities of Takshashila and Nalanda.
- Ancient Indian literary works such as *Banabhatta's Kadambari* described a good education as knowledge of the 64 Kalaas or arts.
  - o The very idea that all branches of creative human endeavour, including mathematics, science, vocational subjects, professional subjects, and soft skills should be considered 'arts' has distinctly Indian origins.
- This notion of 'knowledge of many arts' or what in modern times is often called the 'liberal arts has been integral to the Indian Education system.
- The beginning of the modern system of schooling saw a departure from the tradition of hitherto apprentice-based education followed for centuries in India.
  - o The formalization of the study of *3Rs (Reading, Writing, and Arithmetic)*, though, a welcome step in the direction of democratizing learning, led towards a distinction between vocational and formal education.

Approach towards Vocational Education

- Vocational Education is often looked down upon and treated as an option for those who are supposedly 'not great' in formal education.
  - o However, these artificial distinctions were challenged during the national independence movement, particularly by the Nai Talim philosophy and Wardha model of development propounded by Gandhiji.
- *Nai Talim or Basic Education* considered knowledge and work as inseparable entities.
  - o It challenged the distinction between 'manual work' and 'intellectual work' that existed in society.
  - o It propounded a holistic education where the body, mind, and soul were given equal importance.

Skill Building in Independent India

- Independent India saw a push towards skill-based education.
  - o Polytechnics, Industrial Training Institutes, and Nai Talim Training Institutes were opened across the country.

- Craftsmen Training Scheme, initiated in 1950, has been shaping craftsmen to meet the existing as well as future manpower need.
  - o ITIs located all over the country with a trainee count of 22.86 lakh at a time in 138 trades.
- Although, these initiatives could not mainstream vocational education or skilling, they helped build a foundation of vocational education in the country.

Recent Initiatives

1. *Skill India Mission*: It was launched on the eve of World Skills Day on July 15, 2015, to train over 40 Crore people in India in different skills by 2022.
   - o It was created to rapidly scale up skill development efforts in India, by creating an end-to-end, outcome-focused implementation framework, which aligns demands of the employers for a well-trained skilled workforce with aspirations of Indian citizens for sustainable livelihoods.
- The Mission has taken a systemic approach towards skill development and is responsible for convergence in skill development efforts between the Centre and States on the one hand and the industry needs and aspirations of the youth on the other. It has certain impacts :
a. The mission gave a boost to the *National Skill Development Corporation* which was set up as a not-for-profit public limited company in a Public-Private Partnership (PPP) model.
b. The Government of India prepared the National Policy on Skill Development and Entrepreneurship, 2015 which recommended the creation of Sector Skill Councils (SSCs).
   - o SSCs are a professional standard-setting and capacity-building bodies comprising of representatives from public and private industries for various sectors.
c. A National Skill Qualification Framework (NSQF) has been created which organizes qualifications according to a series of levels of knowledge, skills, and aptitude.
d. Pradhan Mantri Kaushal Vikas Yojana (PMKVY) 1.0 was launched in 2015 to encourage and promote skill development in the country by providing free short duration skill training and incentivizing this by providingmonetary rewards to youth for skill certification.
2. *National Education Policy-2020*: NEP-2020 recognizes that one of the primary reasons for the small numbers of students receiving vocational education is the fact that vocational education has in the past focused largely on grades 11-12 and dropouts in grade 8 and upwards.
   - o It aims to overcome the social status hierarchy associated with vocational education and requires the integration of vocational education programs into mainstream education in all educational institutions in a phased manner.
a. Under this policy, Secondary schools will collaborate with ITIs, polytechnics, local industry, etc. Skill labs will be set up and created in the schools in a hub and spoke model.
b. 'Lok Vidya', i.e., important vocational knowledge developed in India, will be made accessible to students through integration into vocational education courses.
c. Higher Education Institutions will also be allowed to conduct short-term certificate courses in various skills including soft skills which are highly sought after in the industry.
d. Every higher education institution and even every school or school complex will aim to have Artist(s)-in-Residence to expose students to art, creativity, and the rich treasures of the region/country and also train the students in local crafts.

Global and Local Models for Skill Development

- There are several global and local models to learn from in integrating vocational education in schools and higher education.
- NITI Aayog through its three prominent programs is working on two fronts:
a. Mainstreaming vocational education.
b. Skilling students in Industry 4.0 to groom them as future job creators rather than job seekers.

Conclusion

- The benefits of young demography could only be reaped if the concerned population is productive and skilled.
- India has launched the ambitious mission of Skill India to develop the full potential of its youth.
- India has taken a systemic approach to offer vocational training across a spectrum of skills - masonry to coding to artificial intelligence - through the power of public-private partnership.
- The integration of vocational education with school and higher education and skilling in futuristic technologies will play a defining role in creating a highly-skilled workforce which will make India Aatma Nirbhar.

1. **Sustainable Action for Transformation of Human Capital- Education (SATH-E)** where NITI Aayog has partnered with the States of Jharkhand, Odisha, and Madhya Pradesh for systemic transformation in school education.
   ➢ One of the initiatives is to create Schools of Excellence which will be composite schools having high enrolment, best-in-class infrastructure, and providing holistic education with a special focus on job-ready skills.

2. **Atal Innovation Mission (AIM)** under which NITI Aayog has established over 10000+Atal Tinkering Labs across the nation. These labs offer exposure and skills in Science, Technology, Engineering, and Mathematics (STEM) disciplines such as robotics, 3-D printing, the Internet of Things (IoT), etc.

3. **Aspirational District Program (ADP)** launched by NITI Aayog in 112 districts across the country.
   ➢ Traditionally, these districts have been socio-economically backward. The broad contours of the programme are Convergence (of Central and State Schemes), Collaboration (of Central, State level 'Prabhari' Officers and District Collectors), and Competition among districts through monthly delta ranking - all driven by a mass movement.

Skill Requirements for Sustainable Livelihood in Rural Farm-based Cooperatives

Introduction

- Cooperatives are self-supporting community associations.
  o These are accepted as an 'essential instrument of social and economic policy and have inherent advantages in tackling the problems of poverty alleviation, food security, and employment generation.
  o They have immense potential to deliver goods and services in areas where both the State and the private sectors have remained not so successful and effective.
- Cooperatives are people-centric rather than capital-centric organizations and hence, require timely and adequate skill up-gradation and capacity development initiatives for facilitating community leaderships, time management abilities, creativity and innovation in business system, effective business management etc.

Background of India's Co-operative Movement

- India's cooperative movement started when there was a serious impact of the then industrial revolution on village industries, agriculture, rural income and employment during the last quarter of 19th Century.
- In pre-independence India, the movement was successful in getting its first ever *Cooperative Credit Societies Act passed in 1904*.
  o This legal status to cooperatives gave a quick momentum to the cooperative movement, but availability of skilled cooperators technically qualified and expert personnel in the sector remained a challenge.

Status and Significance of Skilling

- The degree and intensity of Economic Growth and the inclusivity depend largely on skill -development and capacity improvement of the youth.
  o Today's youth need updated knowledge and competence improvement rather than traditional training and sensitization to ensure a sustainable livelihood, income and employment.
- *NSS 61st Round* results show that among persons of age 15-29 years:
a. Only about 2 % reported to have received formal vocational training.
b. Another 8 % reported to have received non-formal vocational training
  o It is indicating that very few young people actually enter the world of work with any kind of formal vocational training.
- The *National Policy for Skill Development and Entrepreneurship (2015)* aims at creating an ecosystem of empowerment by skilling people on a large scale with high standards and to promote a culture of innovation based entrepreneurship in the country.
  o India's rural population mainly depends on agriculture and allied sectors for their livelihood.

Challenges

- Research studies and reports state that the policy makers and planners accord low priority to the activities of skilling. Absence of a robust coordination and monitoring mechanism has not yet ensured appropriate convergence for their optimal implementation.

Issues

1. Multiple assessment and skill certification systems.
2. Paucity of expert trainers, inability to attract practitioners from the industry as faculty.
3. Mismatch between demand and supply at sectoral and spatial levels.
4. Limited mobility between education programmes education and vocational Education.
5. Low coverage of apprenticeship programmes.
6. Narrow and obsolete skill curricula.
7. Declining women labour force participation.
8. Low Productivity sectors employ more people.
9. Non-Inclusion of Entrepreneurship in Education.
10. Lack of mentorship and inadequate access to finance for startups.
11. Inadequate impetus to innovation-driven entrepreneurship.

Types of Co-operatives and their roles

a. *Primary Agriculture Credit Society (PACS)*: The community level cooperative society known as Primary Agriculture Credit Society (PACS) is an all-farmer member driven cooperative institution.
   o The objective of PACS is to overcome farmers from the clutches of moneylenders and middlemen.
b. *The non-credit cooperatives*, particularly the producer's cooperatives like Fishery, Dairy, Processing, Farming, Service, Livestock, Multi-purpose Cooperatives, etc. can also be considered as "rural farm-based cooperatives".
- The Cooperatives have to integrate six capitals for their business growth viz.
   i. *Human capital* where skills, knowledge, ability would help pursuing different livelihood strategies.
   ii. *Social capital* where social resources, networks, membership of groups, relationship of trust encourages people to draw in the pursuit of livelihoods.
   iii. *Physical capital* where basic infrastructure, production equipment enable people to follow livelihoods.
   iv. *Natural capital* where land, water, biodiversity, environmental resources manage flow to derive livelihoods.
   v. Financial capital where savings, supply of credit broadens livelihood options.
   vi. *Information capital* where accessibility and affordability of information, weather, market intelligence empowers the people to take appropriate and timely business decisions.

Way Forward

- In the 21st century, the skill sets can range from professional, conceptual, managerial, operational, and behavioural to interpersonal skills and inter-domain skills.
   o Hence, the need of the hour is to find out the skill gap and roll out effective and time tested mechanisms for skilling all rural farm-based cooperative personnel periodically, in order to ensure sustainable business environment in the cooperative sphere.
- Cooperatives have to reinvigorate these perspectives in order to respond to the changing contours and structures of the business landscape and thereby making them competitive and sustainable.
   o This would help in adopting a holistic perspective in order to understand the present livelihood- pattern and related issues and thereby would help in constructing strategic interventions for promoting livelihood development at the local level.
- The success of cooperatives lies in 4S-Standardization of institutional and business practices, Scaling-up of membership and business volume, Skilling of hard/ technical and soft/ process skills, and Sustenance of good-governance and management practices.

Vibrant MSMEs - Towards Inclusive Growth

Introduction

- Micro, Small and Medium Enterprises (MSMEs) are widely recognized for the important contributions they make towards sustainable development in terms of contributions to
   o Economic growth.
   o Creation of decent jobs.
   o Provision of public goods and services.
   o Poverty alleviation and reduced inequality.
- MSMEs are complementary to large industries as ancillary units and this sector contributes significantly in the inclusive industrial development of the country.

- About 20 % of the MSMEs are based out of rural areas, which indicate the deployment of significant rural workforce in the MSME sector and is an exhibit to the importance of these enterprises in promoting sustainable and inclusive development as well as generating large scale employment, especially in the rural areas.
- With the government's focus on enhancing credit flow, to MSMEs' technological up-gradation and digitizing MSMEs, they can play a bigger role in the 'Make in India' campaign.

Background

- MSME sector is next to agriculture in terms of providing employment.
  - It accounts for 48 percent of Indian exports.
  - With strong and complex backward and forward linkages, the sector provides essential support to large enterprises and their value chain.
- MSMEs contribute :
  - 6.11 percent of the manufacturing GDP.
  - 4.63 percent of the GDP from service activities.
  - 33.4 percent of India's manufacturing output.
- They have been able to provide employment to around 120 million people and contribute around 45 percent of the overall exports from India.
  - The sector has consistently maintained a growth rate of over 10 percent.
- About 20 percent of the MSMEs are based out of rural areas, which indicate the deployment of significant rural workforce in the MSME sector and is an exhibit to the importance of these enterprises in promoting sustainable and inclusive development as well as generating large scale employment, especially in the rural areas.

Role of MSMEs

- MSME's help in inclusive growth of our country by:
a. Generating large scale employment.
b. Sustaining economic growth and increase exports.
c. Making growth inclusive.

Generating Large Scale Employment

- In India, capital is scarce and labour-abundant. MSMEs are thought to have lower capital-output and capital-labour ratios than large-scale industries, and therefore, better serve growth and employment objectives.
- Not only do MSMEs generate the highest employment per capita investment, they also go a long way in checking rural-urban migration by providing people living in isolated areas with a sustainable source of employment.

Sustainable Economic Growth and Export Increase

- Non-traditional products account for more than 95% of the MSME Exports. Since these products are mostly handcrafted and hence eco-friendly, there exists a tremendous potential to expand the quantum of MSME led exports

Inclusive Growth

- For many families, it is the only source of livelihood. Thus, instead of taking a welfare approach, this sector seeks to empower people to break the cycle of poverty and deprivation.
- It focuses on people's skills and agency. However, different segments of the MSME sector are dominated by different social groups.

Employment Generation

- The Micro, Small and Medium Enterprises (MSME), if nurtured well, can bridge the gap and create one crore jobs in the next 4-5 years.
  - MSME was the largest job creator in the last four years.
- As per the annual report 2017-18 of the Ministry of MSME, the sector contributed around 3.6 crore jobs (70%) in the manufacturing sector.

Challenges and Issues

Obsolete Technologies: Most of the unregistered MSMEs predominantly comprise micro enterprises, particularly confined to rural India, operating with obsolete technology, limited access to institutional finance etc.

- There is a need to transform the huge numbers of unregistered MSMEs into registered MSMEs.
- There is a need to improve the competitiveness of the overall MSME sector by covering areas like :
  - Access to technology.
  - IPR related issues.
  - Design related issues.
  - Wasteful usage of resources/manpower.
  - Energy inefficiency and associated high cost.
  - Low IeT usage.
  - Low market penetration, quality assurance/certification.
  - Standardisation of products.
  - Proper marketing channels to penetrate new markets.
- COVID-19 is a crisis with an unforeseeable ending. It is clear, though, that the government and businesses-both large and small- will have to work together to ensure the protection of workers, be ready for risk management in terms of phased re-starting of business operations and be prepared to open structural changes in business activity.

Initiatives taken by Government

a. *Access to credit*: Launch of the 59 minute loan portal to enable easy access to credit for MSMEs. Loans upto 1 crore can be granted in- principle sanction.
- There is also a provision for 2 % interest subvention for all GST registered MSMEs on fresh or incremental loans.
b. *Access to market*: Public sector companies now have to compulsorily procure 25 % of their total purchase from MSMEs.
c. *Technology Up-gradation*: For better access to technology, 20 technology hubs with 100 spokes in the form of tool rooms will be set up throughout the country.
d. *Ease of Doing Business*: A number of initiatives have been initiated for facilitating business for getting clearances and certifications.
e. *Social Security for MSME Sector Employees*: A mission has been launched that ensures that employees have access to Jan Dhan Accounts, Provident fund and Insurance.
- It has been found that clustering facilitate MSMEs helps to combat the challenges thrown up by globalization-cluster policies work towards strengthening of inter-firm collaboration and business networking and building up/ strengthening of organizations for technology transfer.
- These policy initiatives are clear and consistent, aimed at transforming the ecosystem for the MSMEs sector by influencing:
a. Birth (encouraging start-ups).
b. Operations and growth (by simplifying laws and regulations and facilitating their access to credit, by providing better technology and dynamic markets, apart from skilled labour and reliable infrastructure).
c. Orderly and easy exit.

Conclusion

- The MSME sector is a nursery of entrepreneurship driven by individual creativity and innovation.
  - The micro sector grows on its own like a hydra because of compulsion.
  - The compulsion is either to generate livelihood and income as in the case of traditional manufacturing industries or additional livelihood and income as in the case of sectors like handloom, handicrafts and sectors falling under Khadi and Village Industries Commission (KVIC).
- The Indian MSME sector offers maximum opportunities for both self-employment and wage-employment outside the agricultural sector and contributes in constructing an inclusive and sustainable society in numerous ways through making of non-farm livelihood at meagre cost, balanced regional development, gender and social balance, environmentally sustainable development.
- To reach the $5 trillion economy, MSMEs have to play a much bigger role in employment generation, in exports, in skilling people and in making the sector more formalized so that they start reaping the benefits of reforms such as GST.
- Thus, the emerging focus of India's MSME policy aims at covering the entire lifecycle of MSMEs to ensure a healthy, vibrant and competitive MSME sector.

Rural Women: Key to New India's Agrarian Revolution

Introduction

- India is an agrarian economy with about 54.6 % of total workforce engaged in agricultural and allied sector activities (Census2011).
  - Women are extensively engaged in the activities pertaining to agriculture and allied sector.
  - In India, reforms are underlined for holistic development of women, enabling socio-economic and health security.
- Since Independence, several government flagship schemes and programmes are initiated to improve rural women stature in society by creating livelihood opportunities and engagements in paid employments.
- Now, rural women are availing access to education, productive resources, capacity building, skill development, healthcare facilities and diversified livelihood opportunities through government beneficiary schemes.

Rural Women Workforce in Agriculture Sector

- In rural communities, agriculture and allied sector is the primary source of livelihood. Rural women are engaged at all levels of agricultural value chain; i.e., production- pre-harvest, post-harvest processing, packaging, marketing to increase productivity in agriculture.
  - It is projected that women-oriented reforms, ensuring equal access to resources, skill development and opportunities in agriculture would increase agricultural output in developing countries between 2.5 and 4 percent.

Steps taken by the Govt.

a. Gender Mainstreaming in Agriculture

- Government of India has prioritized agenda of 'Gender Mainstreaming in Agriculture' to provide access to resources/schemes to rural women engaged in agriculture and allied sector.
- Special beneficiary-oriented schemes are laid by Department of Agriculture and Farmers' Welfare to mainstream the participation of rural women.
  - These special schemes provide for States and other implementing agencies to incur at least 30 percent expenditure on women farmer.

b. Empowering Women Farmers

- Several Inter-ministerial initiatives of Government of India have helped women farmers in receiving access to resources to enhance theirlivelihood, social and economic gains.
- The *Mahila Kisan Sashaktikaran Pariyojana (MKSP)* scheme was launched by Ministry of Rural Development to impart skill development and capacity building programmes for rural women.
  - This scheme was introduced as a sub component of DAY-NRLM.
- *Pradhan Mantri Kaushal Vikas Yojana (PMKVY)* implemented by Ministry of Skill Development and Entrepreneurship provides several short duration skill training programmes viz. Short-Term Training (STT) and Recognition of Prior Learning (RPL), etc. for rural youth and women to earn their livelihood.
- *Biotech-Krishi Innovation Science Application Network (Biotech-KISAN)* Programme was initiated by The Department of Biotechnology (DBT) provide scientific solutions to farmers in north east region to link available innovative agriculture technologies to the farm with the small and marginal farmers, especially women farmers of the region.

c. Reforms for Social Empowerment

- *Beti Bachao Beti Padhao* scheme has provided a significant mass-mobilization drive towards elimination of gender discrimination and improved sex ratio at birth.
- Girls' rights and opportunities for higher education were promoted under *Sukanya Samridhi Yojana.*
- Various schemes are now integrated into new umbrella scheme as "*Mission Shakti*" *(Ministry of Women and Child Development, 2021).*
  - Schemes implementation strategy under Mission Shakti will include components such as National, State and District level Hubs for Empowerment of Women, Women Help Lines, One Stop Centres, Sakhi Niwas or Working Women Hostels, Shakti Sadans or homes for troubled women.

d. Financial Empowerment

- JanDhan campaign has ensured access to financial services, viz, banking/ savings and deposit accounts, remittance, credit, insurance, pension in an affordable manner to rural women.

- These financial accessibility measures have ensured transparent mode of transaction and timely access to financial services through direct benefits transfer (DBT) facility provided under various Government of India schemes.
- This financial inclusion has helped rural population to fight the crisis during COVID-19 pandemic outbreak with uninterrupted access to financial aid.

Conclusion

- In Indio, Agriculture employs about 80 percent of rural women. Empowering and mainstreaming rural women workforce in agriculture can bring paradigm shift towards economic growth.
- India's performance has improved from 0.665 in 2018 to 0.668 in 2020 (Global Gender Gap Index Report 2020).
  - o Initiatives for mainstreaming women participation in economic activities could work as catalyst in achieving goals as set under United Nation's Sustainable Development Goal. Promotion of gender equality and access to Government schemes/programmes will encourage women participation in agriculture sector.
  - o This will help in alleviating extreme poverty and hunger and support in improving the country's economy.
- Further, adequate investment in pro-rural women schemes and more community level participation will expedite the empowerment in a mission mode for better future prospects.
  - o Skill development and access to education, health care and digital ecosystem can play a significant role in lives of rural women.
  - o Proper training and capacity building on new agricultural technologies can help women farmer.

Fostering Innovation and Entrepreneurial Skills among Rural Youth

Introduction

- Majority of our population lives in the rural areas and agriculture is the main source of livelihoods in the rural areas.
  - o But, as agriculture cannot sustain the living of majority of the farmers, an increasing share of rural households' income comes from non-farm activities.
- Skill plays an important role to get respectable non-farm job opportunities. Blend of education and skills increases the, ability to innovate and helps in adopting new technologies in agriculture and enhance farmers' performance.
- Evidence from Asia suggests that better education and training increases the chances to find high-paying non-farm employment. However, access to training is a major constraint among rural people in developing countries.
  - o 90 percent of agricultural workers in India have no formal training, they need skills for the respectable employability.

Background

- As per India's Census, the total youth population increased from 168 million in 1971 to 422 million in 2011.
- Knowledge and education are key factors to the full and effective participation of youth in the process of social, economic and political development.
  - o Increased attention is require to improve participation rates of young people, particularly of rural and marginalized areas.

Initiatives taken by the Government

a. *National Skill Development Policy* was formulated in 2009 to enhance the availability of skilled workforce.
b. Central Government framed the *National Policy for Skill Development and Entrepreneurship 2015* to accelerate the pace of skilling.
  - o The primary objective of this policy is to meet the challenge of skilling at a higher scale, requisite quality and sustainability.
  - o Also a separate Ministry of Skill Development and Entrepreneurship was created, which is responsible for coordination of all skill development efforts across the country.
c. Under *Skill India Mission*, the Government is implementing more than 40 skill development schemes/programmes across 20 Central Ministries/Departments, for providing a variety of skill development training programmes on pan India basis in which 556.1 lakhs persons have been trained.
d. *National Rural Livelihood Mission - Ajeevika Skills*: Aajeevika- National Rural Livelihood Mission is an initiative launched by *Ministry of Rural Development*.
  - o Under this mission, the Aajeevika Skill Development Programme has been launched which aims to understand the professional aspirations and interests of youth and increase their daily income.

e. *Pradhan Mantri Kaushal Vikas Yojana (PMKVY)*: Under this unique initiative, Government of India aims to train about 24 lakh youth to be industry relevant, skilled and prepared for the global market.

f. *Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP)*: This scheme is a World Bank loan assisted programme of the Ministry of Skill Development and Entrepreneurship where the focus will be on three key result areas namely
   i. Institutional Strengthening at Central, State, and District level.
   ii. Quality Assurance of skill development programmes.
   iii. Inclusion of marginalized population in skill development programmes.

Innovations in Startups for Skilling

- Some startups, equipped with their innovations, have come to the rescue of afflicted farmers in solving the problems of Indian agriculture.

a. *Rashtriya Krishi Vikas Yojana - Remunerative Approaches for Agriculture and Allied Sector Rejuvenation (RKVY - RAFTAAR)*
   o This scheme was launched in 2017-18 by the Ministry of Agriculture and Farmers' Welfare to give impetus to agriculture and allied sectors through promotion of innovation and agri-preneurship.
   o The objective of RKVY-RAFTAAR is to support incubation OF agribusiness by tapping and harnessing the innovations and technologies to bring efficiency in input usage and productivity, it has become imperative to blend our crop production techniques with technological innovations.

b. *DigiSaksham*: It is a digital skills programme to enhance the employability of youth by imparting digital skills that are required in an increasingly technology driven era. This joint initiative with Microsoft India is an extension of the Central Government's ongoing programme to support the youth from rural and semi-urban areas.
   o Through DigiSaksham initiative, free-of-cost training in digital skills includingbasic skills as well as advance computing willbe provided to more than 3 lakh youth.

- Technologies like Big Data analytics, Supply Chain/market-linked model, Internet of Things (IoT), are the primary sub-sectors where agri-startups are emerging which can help us with ready to use technologies like Information Communication Technologies (ICTs), mobile apps, farm automation, weather forecasting, and drone use to inputs retailing, equipment renting and online vegetable marketing.

c. *AGNII Mission :*AGNIi – Accelerating Growth of New India's Innovations – is a programme of the Office of the Principal Scientific Adviser to the Government of India,   and a Mission under the Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC).
   o Core mission of AGNIi is to support and augment initiatives undertaken by multiple stakeholders driving India's innovation goals and help connect owners of innovative and new-frontier solutions with the market.

Conclusion

- In India, there still exits wide gap between the availability and demand of skilled workforce.
   o Local artisans in rural India effectively need greater acknowledgement for its novel creations and need greater financial and promotional support.
- Incubators dedicated to this mission can make all the difference in this regard and governments must energize such ventures.

Innovative Approaches in Farm-based Livelihoods

Introduction

- Livelihood is defined as adequate stock and flow of food and cash with an individual or a family to meet their basic needs.
   o Livelihood security means secured ownership of, or access to, resources and income-earning activities, including reserves and assets to offset risks, ease shocks and meet contingencies.
- There are four principal ways of acquiring livelihoods.

a. *Production-based Livelihood*: A large proportion of the small and marginal farmers gain livelihood through production on small pieces of land. For these households, availability or access to inputs and improved methods of production are quite critical for their livelihood.

b. *Labour-based Livelihood*: Most of the small landholders and landless rural households derive livelihood by selling their labour. For their livelihood, demand for labour, wage rates and prices of food are the critical factors.

c. *The Exchange-or Market-based Livelihood*: Those rural households which produce surplus food and non-food agricultural products or non-farm goods earn their livelihoods by selling these products in the market.
   o The marketing system for these products and relative prices of what they sell and what they buy, affect their livelihood.
d. *Transfer-based Entitlements*: The households without any income-earning asset or able-bodied person to work depend for their livelihood on transfers from the government or other social organizations.

Background
- Despite continued efforts from the different governments during last seven decades after Independence, poverty continues to impair the lives of a large section of population of the country.
- Because of limited and inequitable access to productive resources such as land, water, improved inputs and technologies, and natural calamities livelihoods become a challenge.
- Though majority of families, in both the farm and non-farm sectors, derive their livelihood from agriculture, sustainability of agriculture cannot be discussed or even defined in isolation of the issue of livelihoods.

Innovative Approaches
Innovative approaches in the following regard may be taken.
a. Participatory Approach: Involving Panchayats in local decision-making is one way.
b. Diversification and Restructuring Extension and adaptive Research Delivery.
c. Holistic Integrated Approach in issues relating to i) productivity, ii) marketing, iii) post- harvest, iv) agro-processing, v) credit, vi) rural infrastructure, vii) research, viii) technology dissemination, ix) natural resource management should be addressed.
d. Technology Development and Dissemination.
e. Group Farming System Approach.
f. Participatory Planning, Management and Monitoring.
g. Creating Enabling Environment for Privatisation and Commercialization.
h. Farm Polyclinic.
i. Marketing linkages.
j. Concept of Bio-village and Seed Village.
k. The Collective Marketing Model.
l. Enhancing Knowledge through Radio.

Women in Community Based-Livelihood
- Non-farm activities aim at facilitating the beneficiaries to become self-reliant be in control of their own lives and be independent of intermediaries.
- Community-based livelihood empowers a woman to get involved on her own, to not only procure but to market products, and to face the world without being intimidated by it.
- The core idea is to facilitate transfer of responsibilities of buying and selling to the budding entrepreneurs in such a way that the change is permanent without undue dependence on intermediaries.

Vocal for Local
Introduction
- In the face of the crisis, Priority should be given to addressing underlying food security and malnutrition challenges, tackling rural poverty, in particular through more and better jobs in the rural economy, extending social protection to all, facilitating safe migration pathways and promoting the formalization of the informal economy.
- Although agriculture and allied sector are estimated to grow at 3.4 per cent in 2020-21 and are likely to cushion the shock of the COVID- 19 pandemic on the Indian economy in 2020-21, Industry andservices sector are estimated to contract by 9.6 percent and 8.8 per cent respectively during the year2020-21.

Background
- Although the agriculture sector remained strong but "contact-based services, manufacturing, construction were hit hardest", as per the Economic Survey-2021.

- **Production Linked Incentive (PLI) Scheme**: To tackle this situation the government has announced a Production Linked Incentive (PLI) Scheme in the 10 key sectors under the aegis of AatmaNirbhar Bharat for enhancing India's manufacturing capabilities and exports: Advance Chemistry Cell (ACe) Battery, Electronic/Technology Products, Automobiles and Auto Components, Pharmaceuticals drugs, Telecom etc.
  - o This is expected to make Indian manufacturers globally competitive; attract investment in the areas of core competency and cutting-edge technology; ensure efficiencies; create economies of scale; enhance exports and make India an integral part of the global supply chain.

> 1. ACC battery manufacturing.
> 2. Digital Economy.
> 3. Automotive Industry.
> 4. Indian pharmaceutical industry (3rd Largest in The world by volume and 14th Largest by Value).
> 5. Telecom equipment.
> 6. Indian textile industry.
> 7. Processed food industry.
> 8. Solar PV modules.
> 9. White goods (air conditioners and LEDs).
> 10. Steel.

Conclusion

- India is in a steady growth trajectory and is aiming to become a five trillion economy.
- To achieve this milestone, India has to put emphasis on its manufacturing sector and expand its consumer base with locally produced and manufactured goods.
- Initiatives of the current government like Aatma-Nirbhar Bharat and 'Vocal for Local' have very vital role to fulfill India's dream.

Impact of Digital Transformation on Livelihood Generation

Introduction

- Revolutions take place to serve the changing needs of a society. Digitalization, widely cited as the fourth industrial revolution, has been no different in this regard.
- While digital waves were strong since the late 2000s, India really started digitalizing as a whole only after the trailblazing *Digital India Campaign* that took the country by a storm post 2015.

Background

- India really started digitalizing as a whole only after the Digital India Campaign that took the country by storm post 2015.
- The digital empowerment that followed ranged from improving Indio's services industry to moulding a robust manufacturing sector, and to reviving Indio's glorious agriculture sector.
- The digital transformation that India is in the midst of is marked by inclusivity rather than exclusive use of latest technology by those on top and empowering people to create employment rather than seeking it.

Initiatives

a. **UPI:** The service was created by experts but its success only came from its use by masses. In FY 2018-19, UPI accounted for 17 percent of the total 31 billion digital transactions in the country.
  - o In FY 2020-21, UPI accounted for 40 percent of the total 55 billion digital transactions.
b. With almost all businesses adopting work from- home model during the pandemic, the pandemic showed how digitalisation first created employment and then facilitated it by enabling lakhs and crores of people to make their home their workplace when the novel corona virus threatened to paralyse the economy that 1/6th of the world depends on directly, and even more indirectly.
c. *National Agriculture Market or eNAM*: The potential of the agriculture sector remains marred by disguised unemployment and inadequate benefits to farmers.
  - o *National Agriculture Market or eNAM* is an online trading platform for agricultural commodities in India.
    - ✓ The market facilitates farmers, traders and buyers with online trading in commodities.
    - ✓ The market is helping in better price discovery and providing facilities for smooth marketing of their produce.

Challenges

- While the biggest challenge for any economy is the spread of digitalization, the challenges remain in terms of preparing workers for structural unemployment and equipping new workers to enter a market dominated by technology.
- The government has taken efforts like introducing National Education Policy 2020 to provide necessary skills to the incoming workers of the economy so as to facilitate their smooth entry into job markets.

Impact

- Digitisation has had a twofold impact.
  a. Regional disparities in employment have improved with the possibility of remote working and entrepreneurship coming from the Tier-2 and Tier-3 cities.
  b. Sectoral disparities continue to improve with digitisation facilitating a manufacturing revolution and agriculture changing through technology.
- *Digital India Campaign* itself has generated employment in form of people employed in the execution of its various schemes.
  o From Common Service Centers to Aadhaar technicians, Digital India Campaign, in its massiveness, has created facilitator employment in the country and this also has to be an impact of the digital transformation itself.