



CHROME IAS

Giving Wings To Your Dreams !!!

PIB

**Date wise compilation of
PIB - so that you don't
miss any relevant news
for IAS Examination !**

**MONTHLY
COMPILATION
OCT. 2020**

For UPSC Prelims & Mains Examination

53/5, First Floor, Old Rajinder Nagar

Contact: 011-49789720, 9990356664  7840048445

(E-mail: info@chromeias.com • Website: <http://chromeias.com>)

CHROME IAS ACADEMY

INDEX

MONTHLY PIB COMPILATION OCTOBER 2020

S. No.	Area	Topics	Page No.
1.	General Studies- III	'Responsible AI for Social Empowerment 2020' Summit	2
2.	General Studies- II	Asian Infrastructure Investment Bank (AIIB)	3
3.	General Studies-III	Muriate of Potash (MOP)	5
4.	General Studies- II	Decarbonising Transport in India	6
5.	General Studies- II	Flight Test of Smart	7
7.	General Studies- II	India-Canada Agri-Tech Seminar	8
8.	General Studies- II	Production Linked Incentive Scheme (PLI)	9
9.	General Studies- III	Wildlife Week 2020	10
10.	General Studies-II	Emergency Credit Line Guarantee Scheme (ECLGS)	11
11.	General Studies-II	Vaibhav Summit	11
12.	General Studies- III	Stockholm Convention on Persistent Organic Pollutants (Pops)	12
13.	General Studies-III	Natural Gas Marketing Reforms	14
14.	General Studies-III	Hydrogen Fuel	15
15.	General Studies-II	MOC Between India and Japan	16
16.	General Studies-III	United Nations Summit on Biodiversity	17
17.	General Studies-III	Artificial Neural Networks Based Global Ionospheric Model Annim	18
18.	General Studies-II	Direct Marketing	19
19.	General Studies-II	88 th Air Force Day	21
20.	General Studies-II	Svomitva Scheme	22
21.	General Studies-II	Prime Minister's Employment Generation Programme (PMEGP)	23
22.	General Studies-II	Global Alliance For Vaccines And Immunization (Gavi Alliance)	24
23.	General Studies-II	National Postal Week	25
24.	General Studies-I	Dr. Balasaheb Vikhe Patil	26
25.	General Studies-I	Dr. Ram Manohar Lohia	26
26.	General Studies-II	Kamdhenu Deepawali Abhiyan	27
27.	General Studies-II	India Energy Modeling Forum	28
28.	General Studies-II	LTC stimulus	30
29.	General Studies-II	Members of Parliament Local Area Development Scheme (MPLADS)	31
30.	General Studies-III	Central Finger Print Bureau	32
31.	General Studies-II	Online Dispute Resolution (ODR)	33
32.	General Studies-II	Regional Raw Drug Repository for AYUSH Systems	34
33.	General Studies-II	Food and Agriculture Organization	35
34.	General Studies-II	World Bank's STARS project	37
35.	General Studies-III	National Technical Textiles Mission	38
36.	General Studies-II	Advanced high-resolution Air Quality Early Warning System	39
37.	General Studies-II	Ayurveda Day and Dhanwantri Jayanti	40
38.	General Studies-II	'KAPILA' Kalam Program	41
39.	General Studies-III	Waste to Energy Plant	42
40.	General Studies-II	Narcotics Control Bureau (NCB)	43
41.	General Studies-II	Mahila Kisan Diwas	43
42.	General Studies-I	Kala Sanskriti Vikas Yojana (KSVY)	44
43.	General Studies-II	World Food Day	45
44.	General Studies-II	Shanghai Cooperation Organisation	46

CHROME IAS ACADEMY

45.	General Studies-II	Food and Agri Week 2020	48
46.	General Studies-III	Supply Chain Network of Biofuels	48
47.	General Studies-II	SoPs for resumption of Film Production	50
48.	General Studies-II	Exercise SLINEX-20	51
49.	General Studies-III	Ayushman Sahakar	52
50.	General Studies-III	International Financial Services Centres Authority (IFSCA)	53
51.	General Studies-III	INR – USD Futures	55
52.	General Studies-II	Malabar 2020 Naval Exercise	56
53.	General Studies-II	National AYUSH Mission (NAM)	57
54.	General Studies-II	National Deworming Day	58
55.	General Studies-III	GI Tags to New Products	59
56.	General Studies-II	Multi-modal Logistic Park	60
57.	General Studies-III	Expenditure Limits in Elections	61
58.	General Studies-I	Memories of 22 October 1947	62
59.	General Studies-III	Pradhan Mantri Krishi Sinchayee Yojana	63
60.	General Studies-II	INS Kavaratti	65
61.	General Studies-II	Regional Raw Drug Repository (RRDR)	66
62.	General Studies-II	International Financial Services Centres Authority (IFSCA)	67
63.	General Studies-II	The Saras Collection	69
64.	General Studies-II	Kisan Suryodaya Yojana	70
65.	General Studies-II	Employees' State Insurance Scheme	71
66.	General Studies-II	New Pension Schemes for Unorganised Sector	72
67.	General Studies-III	Artificial Intelligence (AI)	74
68.	General Studies-II	Prime Minister's Research Fellowship (PMRF) Scheme	75
69.	General Studies-III	Flash Flood Guidance Services for South Asia	76
70.	General Studies-III	Project Snow Leopard (PSL)	77
71.	General Studies-III	Indian National Centre for Ocean Information Services (INCOIS)	78
72.	General Studies-III	Market Intelligence and Early Warning System (MIEWS)	80
73.	General Studies-II	International Snow Leopard Day 2020	81
74.	General Studies-III	4 th India Energy Forum	81
75.	General Studies-I	Tectonically active zone in Himalayas	83
76.	General Studies-III	International Thermonuclear Experimental Reactor (ITER)	84
77.	General Studies-II	Bundi: Architectural Heritage of a Forgotten Rajput Capital	86
78.	General Studies-II	India- USA 2+2 Meeting	86
79.	General Studies-II	Eradication of Child Labour	88
80.	General Studies-III	Coir Geo textiles	89
81.	General Studies-II	K. R. Narayanan	90
82.	General Studies-II	UK-India Economic and Financial Dialogue	91
83.	General Studies-III	Electricity Access & Utility Benchmarking Report	92
84.	General Studies-II	National Program and Project Management Policy Framework Initiative	93
85.	General Studies-II	Scheme for formalisation of Micro Food Processing Enterprises (FME)	94
86.	General Studies-II	Rashtriya Ekta Diwas	95
87.	General Studies-III	Dam Rehabilitation and Improvement Project (DRIP)	96
88.	General Studies-III	Mandatory Packaging in Jute Materials	97
89.	General Studies-II	Production Linked Incentive Scheme (PLI)	98
90.	General Studies-II	Army launches Secure Application for Internet (SAI)	100
91.	General Studies-II	Fifteenth Finance Commission	100

GENERAL STUDIES - III

Topic- *Wareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.*

'RESPONSIBLE AI FOR SOCIAL EMPOWERMENT 2020' SUMMIT

Context

'Responsible AI for Social Empowerment' (RAISE) 2020 – a Mega Virtual Summit on Artificial Intelligence was inaugurated by PM Modi.

What is the RAISE 2020?

- RAISE 2020 is a **first of its kind, global meeting of minds on Artificial Intelligence** to drive India's vision and roadmap for social transformation, inclusion and empowerment through responsible Artificial Intelligence (AI).
- **Organized by** Government of India along with Ministry of Electronics and Information Technology, the event will witness robust participation from global industry leaders, key opinion makers, Government representatives and academia.

Key features

- At the RAISE 2020 Summit, delegates and experts in research, policy and innovation on Artificial Intelligence will join from across the globe.
- 'The Impetus that **Innovation Places on Digitisation**', '**Inclusive AI**', '**Partnerships for Successful Innovation**' etc.
- The RAISE 2020 Summit will feature some of the most exciting startups working in Artificial Intelligence-related fields.
- This is **part of Government of India's continuing support to tech entrepreneurs and startups** by providing exposure, recognition and guidance.

Highlights of RAISE 2020

- RAISE 2020- '**Responsible AI for Social Empowerment 2020**,' a Mega Virtual Summit on Artificial Intelligence (AI).
- It will be organized by **the Ministry of Electronics and Information Technology (MeitY) and NITI Aayog**.
- RAISE 2020 will be a global meeting of minds to exchange ideas and chart a course **for using AI for social transformation, inclusion and empowerment in areas like Healthcare, Agriculture, Education and Smart Mobility, among other sectors.**

Significance

- India is well-positioned to become a global leader in the development of artificial intelligence.
- It is home **to the world's third largest startup ecosystem, elite science and technology institutions** like the IITs, robust and ubiquitous digital infrastructure, and millions of newly-minted STEM graduates every year.
- Industry analysts predict that AI could add up to \$957 billion to India's economy by 2035.

- In the spirit of Sabka Saath Sabka Vikas, India plans to leverage AI for inclusive development, representing the country's 'AI for All' strategy.

Mains Question:

'India is well-positioned to become a global leader in the development of Artificial Intelligence.' Why is that so? Explain.

GENERAL STUDIES - II

Topic- Important International institutions, agencies and fora, their structure, mandate.

ASIAN INFRASTRUCTURE INVESTMENT BANK (AIIB)

Context

Government of India and AIIB sign agreement for \$500 million to improve the network capacity, service quality and safety of the suburban railway system in Mumbai.

Highlights

- **The Government of India, the Government of Maharashtra, Mumbai Railway Vikas Corporation and the Asian Infrastructure Investment Bank (AIIB)** signed a loan agreement for a \$500 million **Mumbai Urban Transport Project-III**.
- It aims to improve the network capacity, service quality and safety of the **suburban railway system in Mumbai**.
- The Project is expected to increase network capacity in the region with the reduction in journey time and fatal accidents of commuters.

Benefits

- It is estimated that among primary beneficiaries of the project, **22% are female passengers** who will benefit from improved safety and quality of service.
- The Mumbai Urban Transport Project-III will also help in **reducing carbon emissions** by shifting passengers away from higher-carbon road transport towards efficient and convenient rail-based mobility.
- In addition, female passengers will benefit from improved safety and quality of service.

Asian Infrastructure Investment Bank (AIIB)

- The Asian Infrastructure Investment Bank (AIIB) is **a multilateral development bank with a mission to improve social and economic outcomes in Asia**.
- **It is headquartered in Beijing, and began its operations in January 2016** and have now grown to **103 approved members worldwide**.
- The bank was **proposed by China in 2013** and the initiative was **launched at a ceremony in Beijing in October 2014**.
- It received the highest credit ratings from the three biggest rating agencies in the world, and **is seen as a potential rival to the World Bank and IMF**.
- Fourteen of the G-20 nations are AIIB members including France, Germany, Italy and the United Kingdom.

Key Organs of AIIB

- **Board of Governors:** The Board of Governors consists of one Governor and one Alternate Governor appointed by each member country.
- *Governors and Alternate Governors serve at the pleasure of the appointing member.*
- **Board of Directors:** Non-resident Board of Directors is responsible for the direction of the Bank's general operations, exercising all powers delegated to it by the Board of Governors.
- **Senior Management:** headed by the President who is elected by AIIB shareholders for a five-year term and eligible for reelection once.
- He is supported by our Senior Management which includes five Vice Presidents responsible for policy and strategy, investment operations, administration and the corporate secretariat and the General Counsel, Chief Risk Officer and Chief Financial Officer.
- **International Advisory Panel:** The Bank has established an International Advisory Panel (IAP) to support the President and Senior Management on the Bank's strategies and policies as well as on general operational issues.

Significance of AIIB

According to the United Nations the AIIB have a potential for 'scaling up financing for sustainable development' for the concern of global economic governance.

The capital of the bank is \$100 billion, equivalent to 2/3 of the capital of the Asian Development Bank and about half that of the World Bank.

Mains Question:

Asian Infrastructure Investment Bank (AIIB) is seen as a potential rival to the World Bank and IMF. Discuss.

GENERAL STUDIES - III

Topic- Government policies and interventions for development in various sectors.

MURIATE OF POTASH (MOP)

Context

Indian Potash Limited (IPL) to cut the price of Muriate of Potash (MOP).

What is Muriate of potash (MOP)?

- Muriate of potash, also known as potassium chloride is essential for plant growth and quality.
- It plays a vital role in the production of proteins and sugars.
- **MOP is used extensively for fertilising pastures, sugar cane, fruit trees, vegetables, and other field crops.**
- It also **protects against draught by maintaining plants water content** which in turn is a benefit for photosynthesis as leaves maintain their shape and vigor.

Agricultural Use

- Potassium chloride is the most widely used K fertilizer due to **its relatively low cost and because it includes more K than most other sources**...50 to 52% K (60 to 63% K₂O) and 45 to 47% Cl⁻.
- Over 90% of global potash production is used for plant nutrition.

- Potassium chloride is often spread onto the soil surface prior to tillage and planting.
- Potassium chloride rapidly dissolves in soil water.
- An especially pure grade of KCl can be dissolved for fluid fertilizers or applied through irrigation systems.

Non-Agricultural Use

- Potassium is essential for human and animal health.
- It must be regularly ingested because the body does not store it.
- Potassium chloride can be used as a salt substitute for individuals on a restricted salt (sodium chloride) diet.
- It is used as a deicing agent and has a fertilizing value after the ice melts.
- It is also used in water softeners to replace calcium in the water.

GENERAL STUDIES - II

Topic– *Government policies and interventions for development in various sectors and issues arising out of their design and implementation.*

DECARBONISING TRANSPORT IN INDIA

Context

Recently, NITI Aayog **in collaboration with International Transport Forum (ITF)** launched the “Decarbonising Transport in India” project.

About

- The online event will inform transport and climate stakeholders in India about planned project activities.
- It will also offer the opportunity to provide inputs regarding **India’s transport challenges and how they relate to CO₂ reduction ambitions**.
- The discussion will help to focus the project further on India’s specific needs and circumstances

Objective

Decarbonising Transport in India project is being launched to develop a pathway towards a low-carbon transport system for India.

What it will do?

- The “Decarbonising Transport in India” project will **design a tailor-made transport emissions assessment framework for India**.
- It will provide the government with a **detailed understanding of current and future transport activity and the related CO₂ emissions** as a basis for their decision-making.

International collaboration

- **India has been a member of ITF, an intergovernmental organisation for transport policy, since 2008.**
- The India project is carried out in the wider context of **the International Transport Forum’s “Decarbonising Transport” initiative**.

CHROME IAS ACADEMY

- It is part of the “*Decarbonising Transport in Emerging Economies*” (DTEE) family of projects, which supports transport decarbonisation across different world regions.
- India, Argentina, Azerbaijan, and Morocco are current participants.

International Transport Forum (ITF)

- *The International Transport Forum at the OECD is an intergovernmental organisation with 60 member countries.*
- It acts as a **think tank for transport policy** and organises the Annual Summit of transport ministers.
- ITF is the **only global body that covers all transport modes**.
- The ITF is administratively integrated with the OECD, yet **politically autonomous**.

Background of ITF

- The *International Transport Forum was created on 18 May 2006 by ministers from 43 countries.*
- The roots of ITF go back to 1953, when 16 European nations established the **European Conference of Ministers of Transport (ECMT)** an international organisation by treaty.
- It was aimed to “coordinate and rationalise European inland transport of international importance”.
- The ECMT remains the legal core of today’s International Transport Forum.

Function

- The ITF works for transport policies that improve peoples’ lives.
- **The mission:** to foster a deeper understanding of the role of transport in economic growth, environmental sustainability and social inclusion and to raise the public profile of transport policy.

Mains Question:

Discuss the key features of ‘International Transport Forum’ (ITF). What does the ‘Decarbonising Transport’ mean and How the ITF will help in reducing the pollution level in India?

FOR PRELIMS

FLIGHT TEST OF SMART

Supersonic Missile Assisted Release of Torpedo (SMART) has been successfully flight tested from Wheeler Island off the coast of Odisha.

What is it?

SMART is a **missile assisted release of lightweight Anti-Submarine Torpedo System** for Anti-Submarine Warfare (ASW) operations far beyond Torpedo range.

- This launch and demonstration is significant in establishing **Anti-Submarine warfare capabilities**.
- A number of **DRDO laboratories** including DRDL, RCI Hyderabad, ADRDE Agra, NSTL Visakhapatnam have developed the technologies required for SMART.

GENERAL STUDIES - II

Topic- *Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.*

INDIA-CANADA AGRI-TECH SEMINAR

A two-day India-Canada Agri-Tech Virtual Seminar organized by the **Indo-Canadian Business Chamber (ICBC)** in collaboration with the **Confederation of Indian Industry (CII)** and the **Ministry of External Affairs of India**.

India's potential in Agri-sector

India is an excellent place for the production of healthy food including nutritious grains, organics, herbals, etc., which are the foundation of Ayurveda's rich traditions and methods of yoga treatment.

- During the last six months of the global pandemic crisis has made considerable progressive reforms in the agricultural sector.
- These include **policy reforms for the establishment of One Nation-One market**, contract farming along with appropriate measures for the safety and freedom of farmers.
- India has over **450 start-ups in the agri-tech sector**, which means that every 9th start-up in the world is Indian.
- **Public-private partnerships** are increasing due to investment in line with this sector.

Agri- Trade relations between India and Canada

The rapid growth in agri-trade between India and Canada are increasing. **A MoU was signed in 2009**, to accelerate Indo-Canadian cooperation forward in leveraging its natural capabilities in the agricultural sector.

- India is **the fifth largest importer of Canadian vegetables and raw agricultural materials**.
- It is the **seventh largest importer of leguminous vegetables**, called "Vegetarian Protein".

Significance of agri-trade between India and Canada

- Canada and India have a proud history of strong bilateral trade and collaboration in agriculture, with a vibrant **trading relationship in agriculture and agri-food, valued at over \$1.5 billion**.
- In India, rapid economic growth is driving new consumer demands and preferences, and **Canada can help India meet those demands through scientific and technological expertise** in food processing, food safety and transportation infrastructure.

Mains Question:

Despite having vast and diversified Agri-region, India is not self-reliant in producing 'Vegetarian Protein'. Why? Discuss.

Topic- Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

PRODUCTION LINKED INCENTIVE SCHEME (PLI)

Context

The India government today approved ten mobile manufacturing companies for its Production Linked Incentive Scheme (PLI) scheme to boost large-scale electronics manufacturing in the country as a part of the its Atmanirbhar Bharat initiative.

What is PLI scheme?

- Production Linked Incentive Scheme (PLI) for Large Scale Electronics Manufacturing was notified on 1st April, 2020.
- It is a part of the National Policy on Electronics and is launches by IT ministry.

Key features

- PLI Scheme **extends an incentive of 4% to 6% on incremental sales (over base year) of goods under target segments that are manufactured in India to eligible companies**, for a period of five years subsequent to the base year (FY2019-20).
- According to the scheme, **companies that make mobile phones which sell for Rs 15,000 or more will get an incentive of up to 6 per cent on incremental sales** of all such mobile phones made in India.
- In the same category, **companies which are owned by Indian nationals** and make such mobile phones, the incentive has been kept at Rs 200 crore for the next four years.

Tenure of the scheme

- **The PLI scheme will be** active for five years with financial year (FY) 2019-20 considered as the base year for calculation of incentives.

Eligibility

- All electronic manufacturing **companies which are either Indian or have a registered unit in India** will be eligible to apply for the scheme.
- These companies can either create a new unit or seek incentives for their existing units from one or more locations in India.
- Any **additional expenditure incurred by companies on plant, machinery, equipment, research and development and transfer of technology** for manufacture of mobile phones and related electronic items will be eligible for the incentive scheme.
- However, all **investment done by companies on land and buildings for the project will not be considered** for any incentives or determine eligibility of the scheme.

Significance

The scheme, will on one hand attract big foreign investment in the sector, while also encouraging domestic mobile phone makers to expand their units and presence in India.

Mains Questions:

How the initiative like 'Production Linked Incentive Scheme (PLI)' can boost the Indian Economy? Discuss.

GENERAL STUDIES - III

Topic- Conservation, environmental pollution and degradation, environmental impact assessment.

WILDLIFE WEEK 2020

Context

Every year National Wildlife Week in India is observed from **October 2 to 8** in a grand manner, but this year due to Covid-19, competitions were organised online.

Highlights

- **Wildlife Week was conceptualized in 1952** with the overall goal of raising awareness to serve the long-term goal of safeguarding the lives of wildlife through critical action.
- The key objective of celebrating the day is to save the lives of Indian animals by taking critical steps.
- **Theme** for Wildlife Week 2020: **Roar (Roar and Revive) – Exploring Human-Animal Relationships.**

Wild Life conservation in India

India is one of the 17 mega diversities of the world and Therefore, it is important for India to conserve and protect its biodiversity.

The dedicated programmes to conserve wildlife in India are:

- Project Tiger: Launched in 1972
- Project Elephant
- Crocodile Conservation Project
- 'Project Dolphin'
- 'Project Lion'
- United Nations Development Programme Sea Turtle Project
- Protected Areas were created by Wildlife Protection Act, 1972
- Wetland (conservation and management) rules, 2010 were drafted

The key legislation in India to protect Wild-life

- Indian Forests Act, 1972
- Fisheries Act, 1897
- Prevention of Cruelty to Animals Act, 1960
- Forest Conservation Act, 1980
- Environment Protection Act of 1986
- Biological Diversity Act, 2002

What is the mega-diverse country?

- The United Nations Environment Programme has identified **17 mega-diverse countries** in the world.

CHROME IAS ACADEMY

- These are **Australia, China, Brazil, Colombia, US, Ecuador, India, Philippines, Indonesia, Malaysia, Madagascar, Papua New Guinea, Mexico, Peru, South Africa, Democratic Republic of Congo and Venezuela.**

A Country is called a mega-diverse country when it full-fill following conditions:

- The country should have at least 5,000 endemic plants.
- It should have marine ecosystems within its borders.

Mains Question:

Discuss the success of the wildlife conservation programmes of India.

GENERAL STUDIES - II

Topic- *Government policies and interventions for development in various sectors and issues arising out of their design and implementation.*

EMERGENCY CREDIT LINE GUARANTEE SCHEME (ECLGS)

Context

The GOI approves additional funding of up to Rupees three lakh crore through introduction of Emergency Credit Line Guarantee Scheme (ECLGS)

What is the ECLGS?

- The scheme has been formulated as a specific response to the unprecedented situation caused by COVID-19 and the consequent lockdown for MSME sector.
- The Scheme aims at mitigating the economic distress being faced by MSMEs by providing them additional funding of up to Rs. 3 lakh crore in the form of a fully guaranteed emergency credit line.

Objective

- To provide an incentive to Member Lending Institutions (MLIs), i.e., Banks, Financial Institutions (FIs) and Non-Banking Financial Companies (NBFCs).
- To increase access to, and enable availability of additional funding facility to MSME borrowers.
- Providing 100 per cent guarantee for any losses suffered by them due to non-repayment of the GECL funding by borrowers.

Impact

- Enabling MSMEs to meet their operational liabilities and restart their businesses.
- By supporting MSMEs to continue functioning during the current unprecedented situation, the Scheme is also expected to have a positive impact on the economy and support its revival.

FOR PRELIMS

VAIBHAV SUMMIT

Vaishwik Bharatiya Vaigyanik (VAIBHAV) Summit was started from 2nd October 2020 – the birth anniversary of Mahatma Gandhi.

- It is a **global summit of Overseas and Resident Indian scientists and academicians**.
- The Summit is a joint effort of various Science & Technology (S&T) and Academic organisations, including Department of S&T, Defence Research and Development Organisation (DRDO).

Key objectives

- To reflect in-depth on the collaboration and cooperation instruments with academia and scientists in India.
- To bring out the comprehensive roadmap to leverage the expertise and knowledge of global Indian researchers for solving emerging challenges.
- To create an ecosystem of Knowledge and Innovation in the country through global outreach.

PIB-OCTOBER 8th, 2020

GENERAL STUDIES - III

Topic- *Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.*

STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANS (POPS)

Context

Recently, the Cabinet approved **Ratification of seven Persistent Organic Pollutants** listed under Stockholm Convention.

Highlights

- The Union Cabinet, chaired by the Prime Minister has approved the Ratification of seven (7) chemicals listed under Stockholm Convention on Persistent Organic Pollutants (POPs).
- The Cabinet further **delegated its powers to ratify chemicals under the Stockholm Convention to Union Ministers of External Affairs (MEA) and Environment, Forest and Climate Change (MEFCC)**.
- Earlier, The MoEFCC had notified the '**Regulation of Persistent Organic Pollutants Rules**, on March 5, 2018 under the provisions of **Environment (Protection) Act, 1986**.

The seven Persistent Organic Pollutants chemicals

The regulation inter alia prohibited the manufacture, trade, use, import and export seven chemicals namely,

1. *Chlordecone*,
2. *Hexabromobiphenyl*,
3. *Hexabromodiphenyl ether and Heptabromodiphenylether (Commercial octa-BDE)*,
4. *Tetrabromodiphenyl ether and Pentabromodiphenyl ether (Commercial penta-BDE)*,
5. *Pentachlorobenzene*,

6. *Hexabromocyclododecane*, and
7. *Hexachlorobutadiene*, which were already listed as POPs under Stockholm Convention.

What is the Stockholm Convention?

The Stockholm Convention is a United Nations' **global treaty to protect human health and the environment from persistent organic pollutants (POPs)**.

- Over **152 countries** ratified the Convention and it **entered into force, on 17 May 2004**.
- The Stockholm Convention **focuses on eliminating or reducing releases of POPs**.
- It **sets up a system for tackling additional chemicals** identified as unacceptably hazardous.
- The **Global Environmental Facility (GEF)** is the designated interim financial mechanism for the Stockholm Convention.

India and the Stockholm Convention

- India had ratified the Stockholm Convention on January 13, 2006.
- as **per Article 25(4)**, India keep itself in a default "opt-out" position such that **amendments in various Annexes of the convention cannot be enforced on it** unless an instrument of ratification/ acceptance/ approval or accession is explicitly deposited with UN depositary.

Aims of the Stockholm Convention

The Stockholm Convention is perhaps best understood as having **five essential aims**:

1. Eliminate dangerous POPs, starting with the 12 worst
2. Support the transition to safer alternatives
3. Target additional POPs for action
4. Cleanup old stockpiles and equipment containing POPs
5. Work together for a POPs-free future

What are the Persistent Organic Pollutants (POPs)?

POPs are **chemicals that remain intact in the environment for long periods**, become widely distributed geographically, accumulate in the fatty tissue of living organisms and are toxic to humans and wildlife.

- POPs **circulate globally and can cause damage wherever they travel**.
- In other words, The POPs are identified chemical substances that persist in the environment, bio-accumulate in living organisms, adversely affect human health/ environment and have the property of **long-range environmental transport (LRET)**.

Effects of POPs

- Exposure to POPs can lead to cancer, damage to central & peripheral nervous systems, diseases of immune system, reproductive disorders and interference with normal infant and child development.
- POPs are listed in various Annexes to the Stockholm Convention after thorough scientific research, deliberations and negotiations among member countries.

Significance of ratification

The Cabinet's approval for ratification of POPs demonstrates India's commitment to meet its international obligations with regard to protection of environment and human health.

- It also indicates the resolve of the Government to take action on POPs by implementing control measures, develop and implement action plans for unintentionally produced chemicals, and review as well as update its **National Implementation Plan (NIP)**.
- The ratification process **would enable India to access Global Environment Facility (GEF) financial resources** in updating the NIP.

Mains Question:

What are the Persistent Organic Pollutants (POPs)? Discuss the Significance of India's approval for ratification of POPs.

GENERAL STUDIES - III

Topic– Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

NATURAL GAS MARKETING REFORMS

Context

The **Cabinet Committee on Economic Affairs** has approved 'Natural Gas Marketing Reforms', taking another significant step to move towards gas based economy.

What is the objective of policy reforms?

The objective of the policy is **to prescribe standard procedure to discover market price of gas** to be sold in the market by gas producers, through a transparent and competitive process.

- The policy has **also permitted Affiliate companies to participate in the bidding process** in view of the open, transparent and electronic bidding.
- It allow marketing freedom to certain **Field Development Plans (FDPs)** where Production Sharing Contracts already provide pricing freedom.
- This will bring **uniformity in the bidding process** across the various contractual regimes and policies to avoid ambiguity and contribute towards ease of doing business.

Area of Reforms

These reforms in gas sector will further deepen and spur the economic activities in the following areas:

- The whole eco-system of **policies relating to production, infrastructure and marketing of natural gas** has been made more transparent with a focus on ease of doing business.
- These reforms will prove very significant **for Atmanirbhar Bharat** by encouraging investments in the domestic production of natural gas and reducing import dependence.
- These reforms will prove to be another milestone in moving towards a **gas based economy by encouraging investments**.
- The **increased gas production consumption** will help in improvement of environment.
- These reforms will also help in **creating employment opportunities** in the gas consuming sectors including MSMEs.
- The domestic production will further help in **increasing investment in the downstream industries** such as City Gas Distribution and related industries.

Benefits

- This will facilitate and promote more competition in marketing of gas.

- The policy will also grant marketing freedom to the Field Development Plans (FDPs) of those Blocks in which Production Sharing Contracts already provide pricing freedom.
- Gas production from East coast will contribute to Atmanirbhar Bharat by meeting increasing energy needs of the country.

Mains Question:

How the 'Natural Gas Marketing Reforms' will contribute in meeting increasing energy needs of the country? Discuss.

GENERAL STUDIES - III

Topic– Science and Technology- developments and their applications and effects in everyday life.

HYDROGEN FUEL

Context

NTPC launches Hydrogen Fuel bus and car project for Leh and New Delhi – Invites Global EOI.

About

- NTPC Ltd has invited Global Expression of Interest (EOI) to provide 10 Hydrogen Fuel Cell (FC) based electric buses and an equal number of Hydrogen Fuel Cell based electric cars in Leh and Delhi.
- NTPC is the India's largest power producer and a central PSU under Ministry of Power.
- The initiative, will also harness renewable energy for generation of hydrogen and develop its storage and dispensation facilities as part of pilot projects at Leh and Delhi.
- The move to launch hydrogen powered vehicles aims at decarbonizing mobility segment.

What is Hydrogen fuel?

- Hydrogen is a clean fuel that, **when consumed in a fuel cell, produces only water.**
- Hydrogen can be produced from a variety of domestic resources, such as natural gas, nuclear power, biomass, and renewable power like solar and wind.
- These qualities make it an attractive fuel option for transportation and electricity generation applications.
- It can be used in cars, in houses, for portable power, and in many more applications.

What Is a Hydrogen Fuel Cell?

- A Hydrogen Fuel Cell is an electrochemical power generator that combines hydrogen and oxygen to produce electricity, with water and heat as by-products.
- Simply put, hydrogen fuel cells form energy that can be used to power anything from commercial vehicles to drones.

HYDROGEN FUEL CELL (HFC) TECHNOLOGY EXPLAINED

How does a fuel cell work?

- A fuel cell is composed of three main components: **an anode, a cathode, and an electrolyte membrane.**

CHROME IAS ACADEMY

- It works by passing hydrogen through the anode side and oxygen through the cathode side.
- At the anode site, the hydrogen molecules are split into electrons and protons.
- The protons pass through the electrolyte membrane, while the electrons are forced through a circuit, generating an electric current and excess heat.
- At the cathode, the protons, electrons, and oxygen combine to produce water molecules.
- Fuel cells are very clean, with their only by-products being electricity, a little heat, and water. Additionally, as HFCs do not have any moving parts, they operate very quietly.

ADVANTAGES & BENEFITS

Zero Emission Power

- HFCs produce no harmful emissions, eliminating the costs associated with handling and storing toxic materials like battery acid or diesel fuel.
- In fact, when fueled with pure hydrogen, the only by-products are heat and water, making this a zero-emission sustainable power source.

Robust Reliability

- HFCs have proven themselves against tough conditions.
- *It works smoothly in cold environments as low as -40 degrees F/C*, weather environments like *hurricanes, deserts and winter storms*, and *even the hard-working business environments of material handling warehouses*.

Improved Efficiency

- HFCs are generally between 40–60% energy efficient.
- This is higher than some other systems for energy generation.

Lower Operational Costs

- Compared to batteries and internal combustion generators, fuel cells save money.
- They eliminate the need to change, charge and manage batteries – saving both labor/time and space normally allocated to a battery room.
- The units run longer than lead-acid batteries and can be fueled in as little as two minutes, substantially reducing vehicle and personnel downtime.

FOR PRELIMS

MOC BETWEEN INDIA AND JAPAN

The Union Cabinet, has given its approval for signing a Memorandum of Cooperation (MoC) in **the field of cybersecurity** between India and Japan.

Highlights

- The MoC will enhance cooperation in areas of mutual interest, which include inter-alia, capacity building in the **area of cyberspace; protection of critical infrastructure; sharing information on cyber security threats/incidents and malicious cyber activities**.
- It will work for developing joint mechanisms for practical cooperation to mitigate cyber threats to the security of Information Communication Technology (ICT) infrastructure etc.

2nd World Cotton Day

India gets its first ever Brand & Logo for its Cotton on 2nd World Cotton Day – A Historic Day for Indian Cotton!

Highlight

- Now India's premium Cotton would be known as 'Kasturi Cotton' in the world cotton Trade.
- The **Kasturi Cotton brand** will represent Whiteness, Brightness, Softness, Purity, Luster, Uniqueness and Indianness.

World Cotton day

- At the initiative of the **Cotton-4 (Benin, Burkina Faso, Chad and Mali)**, the World Trade Organisation made the launch of World Cotton Day on 7 October 2019.
- The World Cotton day is celebrated on **7 October** as a global celebration of cotton and its stakeholders, from field to fabric and beyond.

PIB-OCTOBER 9th, 2020

GENERAL STUDIES - III

Topic– Conservation, environmental pollution and degradation, environmental impact assessment.

UNIED NATIONS SUMIT ON BIODIVERSITY

Context

Urgent need to accelerate action to conserve biodiversity: India at UN Biodiversity Summit

Highlights

- The UN Summit on Biodiversity was convened on **September 30 In New York**.
- In New York, member-nations of the **Convention on Biological Diversity (CBD)** took note of the link between biodiversity loss and the spread of animal pathogens, calling for an end to destructive industrial and commercial practices.
- There is consensus that **conservation targets set a decade ago in Aichi, Japan**, to be achieved by 2020, have spectacularly failed.
- It provided an opportunity for Heads of State and Government and other leaders to **raise ambition for the development of the post-2020 global biodiversity framework** to be adopted at the **15th meeting of the Conference of Parties to the Convention on Biological Diversity, to be held in 2021**.
- This framework, and its effective implementation, must put nature on a path to recovery by 2030 to meet the SDGs and realize the Vision of "**Living in harmony with nature**".

Convention on Biological Diversity (CBD)

The United Nations Convention on Biological Diversity, informally known as the **Biodiversity Convention**, is a multilateral treaty opened for signature at the **Earth Summit in Rio De Janeiro in 1992**.

Key notes on CBD

- **196 countries are a party** to the Convention on Biological Diversity (CBD).
- The Conference of Parties (COP) is the governing body of the convention. Its **Secretariat is in Montreal, Canada**.
- It consists of the governments that have ratified the treaty. **The convention is legally binding on its signatories.**
- **The USA and the Vatican**, only two member states of the United Nations are **not Parties to the CBD**.

India and CBD

- India is a party to the Convention and has **ratified it in 1994**.
- The **Biological Diversity Act, 2002** was enacted for giving effect to the provisions of the Convention.
- To implement the provisions of the Act, the government established the **National Biodiversity Authority (NBA) in 2003**.
- The National Biodiversity Authority (NBA) is a **statutory body**.

What are the Aichi Targets?

- The 'Aichi Targets' were **adopted by the Convention on Biological Diversity (CBD) at its Nagoya conference, Japan**.
- It is a short term plan provides a set of 20 ambitious yet achievable targets, collectively known as the Aichi Targets.

They can be divided into:

- **Strategic Goal A:** Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.
- **Strategic Goal B:** Reduce the direct pressures on biodiversity and promote sustainable use.
- **Strategic Goal C:** To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity.
- **Strategic Goal D:** Enhance the benefits to all from biodiversity and ecosystem services.
- **Strategic Goal E:** Enhance implementation through participatory planning, knowledge management and capacity building.

Mains Question:

Critically evaluate the implementation of the Biological Diversity Act, 2002 which is meant to fulfil the objectives of the Convention on Biological Diversity.

GENERAL STUDIES - III

Topic- *Achievements of Indians in science & technology; indigenization of technology and developing new technology.*

ARTIFICIAL NEURAL NETWORKS BASED GLOBAL IONOSPHERIC MODEL (ANNIM)

Context

New model to predict ionospheric electron density can help communication/navigation has been developed by IIG.

About

- Researchers from Indian Institute of Geomagnetism (IIG), have developed a **global model to predict the ionospheric electron density with larger data coverage**—a crucial need for communication and navigation.
- **Indian Institute of Geomagnetism (IIG), Navi Mumbai**, an autonomous institute of the Department of Science & Technology, Govt. of India,
- ANNIM is developed using long-term ionospheric observations to predict the ionospheric electron density and the peak parameters.

What is ANNIM?

- **Artificial Neural Networks (ANNs)** replicate the processes in the human brain (or biological neurons) to solve problems such as pattern recognition, classification, clustering, generalization, linear and nonlinear data fitting, and time series prediction.
- The target of ANNs is the electron density as a function of altitude for any given location and time.

What are the possible applications of ANNIM?

The ANNIM successfully reproduced large scale anomalies of the ionosphere.

- The ANNIM also captured the general morphological features of the ionosphere during the disturbed space weather periods, such as **geomagnetic storms which occurs when the magnetic cloud originated from Sun (known as Coronal Mass Ejection (CME)) interacts with the Earth's magnetosphere.**
- The model may be utilized as a reference model in the ionospheric predictions.
- It has potential applications in calculating the Global Navigation Satellite System (GNSS) positioning errors.

Importance

- Tracking the variability of the Ionosphere is important for communication and navigation.
- The ionospheric variability is greatly influenced by both solar originated processes and the neutral atmosphere origin.
- Scientists have tried to model the ionosphere using theoretical and empirical techniques; however, the accurate prediction of electron density is still a challenging task.

GENERAL STUDIES - II

Topic- *Government policies and interventions for development in various sectors and issues arising out of their design and implementation.*

DIRECT MARKETING

Context

Union Agriculture Minister asked Chief Ministers of States to encourage direct marketing through Cooperatives/ Farmer Producer Organisations (FPOs) etc.

Highlights

'Direct Marketing' helps decongest mandis and facilitates timely marketing of farm produce during lockdown.

- Government of India has been making concerted efforts to facilitate farmers in direct marketing and assure better returns.
- The States have been requested to promote the concept of 'Direct marketing' to facilitate farmers/ group of farmers/FPOs/ Cooperatives in selling their produce to bulk buyers/big retailers/processors etc.

Measures taken

In order to decongest wholesale markets & to boost the supply chain, following two modules under National Agriculture Market (e-NAM) have been introduced:

FPO Module

- FPOs can directly trade with e-NAM portal.
- They can upload produce details from collection centers with picture/quality parameter and avail the bidding facility without physically reaching to the mandis.

Warehouse Based Trading Module

Farmers can sell their produce from Warehousing Development and Regulatory Authority (WDRA) registered warehouses notified as deemed market, and do not physically bring the produce to the nearest mandis.

What is Direct Marketing?

- Direct marketing is a promotional method.
- It involves presenting information about your company, product, or service to your target customer without the use of an advertising middleman.
- It is a targeted form of marketing that presents information of potential interest to a consumer that has been determined to be a likely buyer.

What are the Farmer Producer Organisations (FPOs)?

- It is one type of **Producer Organizations (PO)** where the members are farmers.
- Small Farmers' Agribusiness Consortium (SFAC) is providing support for promotion of FPOs.
- PO is a generic name for an organization of producers of any produce, e.g., agricultural, non-farm products, artisan products, etc.

What are the essential features of a PO?

- It is formed by a group of producers for either farm or non-farm activities.
- It is a registered body and a legal entity.
- Producers are shareholders in the organization.
- It deals with business activities related to the primary produce/product.
- It works for the benefit of the member producers.
- A part of the profit is shared amongst the producers.
- Rest of the surplus is added to its owned funds for business expansion.

How does the FPO's helps?

- FPOs help in collectivization of such small, marginal and landless farmers in order to give them the collective strength to deal with such issues.
- Members of the FPO will manage their activities together in the organization to get better access to technology, input, finance and market for faster enhancement of their income.

Benefits

- Small and marginal farmers do not have economic strength to apply production technology, services and marketing including value addition.
- Through formation of FPOs, farmers will have better collective strength for better access to quality input, technology, credit and better marketing access through economies of scale for better realization of income.

Mains Question:

Discuss the key features of 'Direct marketing' and critically analyses its role in helping farmers to sell their produce.

FOR PRELIMS

88th AIR FORCE DAY

October 8 is celebrated as the Air Force Day.

- On this day, **the Air Force in India was officially raised in 1932** as the supporting force of the Royal Air Force of the United Kingdom.
- The first operational squadron came into being in April 1933.
- After **participation in World War II**, the Air Force in India came to be called the Royal Indian Air Force in the mid 1940s.
- **In 1950, after the republic came into being it became the Indian Air Force.**
- From six officers and 19 Hawai Sepoys back in 1933, the Air Force now is the fourth largest in the world.

Gyan Circle Ventures

Union Minister for Education inaugurated the Gyan Circle Ventures.

Highlights

- It is a **MeitY funded Technology Business Incubator (TBI)** of Indian Institute of Information Technology, Sri City (Chittoor), Andhra Pradesh.
- Gyan Circle Ventures would function as a **Technology Incubation and Development of Entrepreneurs (TIDE 2.0) incubation center.**
- It will serve as a **hub for innovation and startups by providing support**, in various phases, via investments, infrastructure and mentoring.

CSIR-IMMT

CSIR-IMMT celebrates its 57th Foundation Day.

Highlights

The CSIR-IMMT (Institute of Minerals and Materials Technology), Bhubaneswar celebrated its 57th Foundation Day on 8th October.

CHROME IAS ACADEMY

- IMMT is a **premier national laboratory of the Council of Scientific & Industrial Research (CSIR)**, New Delhi.
- The institute is **dedicated to harness the potential of minerals, materials and other natural resources** of India.
- **Established in the year 1964 as Regional Research Laboratory (RRL) Bhubaneswar**, it was renamed as Institute of Minerals & Materials Technology (IMMT) on 13th April 2007 with a renewed mandate, vision and focus.

PIB-OCTOBER 12th, 2020

GENERAL STUDIES - II

Topic- *Government policies and interventions for development in various sectors and issues arising out of their design and implementation.*

SVAMITA SCHEME

Context

PM launched physical distribution of Property Cards under the SVAMITVA Scheme on 11th October.

Highlights

- In a historic move set to transform rural India and empower millions of Indians, Prime Minister Shri Narendra Modi launched the **physical distribution of Property Cards** under the SVAMITVA Scheme on 11th October.
- It will **enable around one lakh property holders to download their Property Cards through the SMS link** delivered on their mobile phones.
- This would be followed by physical distribution of the Property Cards by the respective State governments.

What is the SVAMITVA Scheme?

- SVAMITVA is a **Central Sector Scheme of the Ministry of Panchayati Raj**.
- It was launched by the Prime Minister on **National Panchayati Raj Day, 24th April 2020**.
- The scheme **aims to provide the 'record of rights' to village household owners in rural areas and issue Property Cards**.

Time-period and coverage of the scheme

- The Scheme is being implemented across the country in a phased manner **over a period of four years (2020-2024)** and would eventually cover around 6.62 lakh villages of the country.
- The States have signed **MoU with Survey of India for drone survey of rural areas and implementation of the scheme**.
- These States have finalised the digital property card format and the villages to be covered for drone-based survey.

Different Nomenclature for the Property Cards

Different States have different nomenclature for the Property Cards viz.

- **'Title deed'** in Haryana,

- 'Rural Property Ownership Records (RPOR)' in Karnataka,
- 'Adhikar Abhilekh' in Madhya Pradesh,
- 'Sannad' in Maharashtra,
- 'Svavitva Abhilekh' in Uttarakhand,
- 'Gharauni' in Uttar Pradesh.

Significance

- The move to physical distribution of Property Cards **will pave the way for using property as a financial asset by villagers for taking loans and other financial benefits.**
- Also, this is the first time ever that such a large-scale exercise involving the most modern means of technology is being carried out to benefit millions of rural property owners.

Mains Question:

How to physical distribution of Property Cards will pave the way for using property as a financial asset by villagers for taking loans and other financial benefits. Discuss.

GENERAL STUDIES - II

Topic- Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

PRIME MINISTER'S EMPLOYMENT GENERATION PROGRAMME (PMEGP)

Context

Ministry of Micro, Small and Medium Enterprises (MSME) is implementing Prime Minister's Employment Generation Programme (PMEGP).

About PMEGP

- **Ministry of Micro, Small and Medium Enterprises (MSME) is implementing** Prime Minister's Employment Generation Programme (PMEGP).
- **It is a major credit-linked subsidy programme.**
- **It aimed at** generating self-employment opportunities through establishment of micro-enterprises in the non-farm sector by helping traditional artisans and unemployed youth.

Implementation

- **PMEGP is a central sector scheme administered by the Ministry of Micro, Small and Medium Enterprises (MoMSME).**
- **At the national level,** the Scheme is being implemented by **Khadi and Village Industries Commission (KVIC).**
- **At the State level,** the Scheme will be implemented through State KVIC Directorates, State Khadi and Village Industries Boards (KVIBs) and District Industries Centres (DICs) and banks.

Objectives

- To generate continuous and sustainable employment opportunities in Rural and Urban areas of the country

CHROME IAS ACADEMY

- To provide continuous and sustainable employment to a large segment of traditional and prospective artisans, rural and urban unemployed youth in the country through setting up of micro enterprises.
- To facilitate participation of financial institutions for higher credit flow to micro sector.

Salient features of the scheme

- The Scheme is implemented through KVIC and State/UT Khadi & V.I. Boards in Rural areas and through District Industries Centres in Urban and Rural areas **in ratio of 30:30:40 between KVIC / KVIB / DIC respectively.**
- No income ceiling for setting up of projects.
- Existing units or units already availed any Govt. Subsidy either under State/Central Govt. Schemes are not eligible.
- Any industry including Coir Based projects excluding those mentioned in the negative list.
- **Per capita investment should not exceed Rs. 1.00 lakhs in plain areas and Rs. 1.50 lakhs in Hilly areas.**
- Maximum project cost of Rs. 25.00 lakhs in manufacturing sector and Rs. 10.00 lakhs in Service Sector.

Eligibility

- **Individuals above 18 years of age**
- VIII Std. pass required for project above Rs.10.00 lakhs in manufacturing and above Rs. 5.00 lakhs for Service Sector
- Self Help Groups and Charitable Trusts
- Institutions Registered under Societies Registration Act- 1860
- Production based Co-operative Societies

Mains Question

Discuss the key features and significance of Prime Minister's Employment Generation Programme during the COVID-19 Pandemic period.

GENERAL STUDIES - II

Topic- Important International institutions, agencies and fora- their structure, mandate.

GLOBAL ALLIANCE FOR VACCINES AND IMMUNIZATION (GAVI ALLIANCE)

Context

Indian Prime Minister addressed the **virtual Global Vaccine Summit-2020 hosted by UK Prime Minister.**

About

- The virtual Global Vaccine Summit **was hosted by UK Prime Minister Boris Johnson.**
- Over 50 countries – business leaders, UN agencies, civil society, government ministers, Heads of State and country leaders have participated.

CHROME IAS ACADEMY

- **The summit aims: to raise the funds that Gavi, the Vaccine Alliance,** needs to protect a further 300 million more children against infectious diseases like measles, typhoid and polio.

What is GAVI Alliance?

GAVI, the Vaccine Alliance, is a **United Nations-backed organisation which coordinates vaccinations across the world.**

- **GAVI (Global Alliance for Vaccines and Immunization)** was created in 2000 as a successor to the Children's Vaccine Initiative, which had been launched in 1990.
- **It is a public-private global health partnership with the goal of increasing access to immunisation in poor countries.**
- **GAVI has observer status at the World Health Assembly.**

GAVI Alliance brings together-

- Developing country and donor governments,
- The World Health Organization,
- UNICEF,
- The World Bank,
- The vaccine industry in both industrialised and developing countries,
- Research and technical agencies,
- Civil society,
- The Bill & Melinda Gates Foundation and other private philanthropists.

Significance

- Global Alliance for Vaccines and Immunization (GAVI Alliance) provides a unique opportunity for a wide-range of partners to build consensus around policies, strategies, and priorities and to recommend responsibility of implementation to the partner with the most experience and insight in the area.
- GAVI has developed innovative approaches to international health and development.

FOR PRELIMS

NATIONAL POSTAL WEEK

- India Post commenced celebration of the **National Postal Week** from 9th to 15th October, starting with World Post Day.
- **World Post Day** is celebrated each year on **9th October as the anniversary of the establishment of the Universal Postal Union (UPU) in 1874 in Berne.**
- The purpose of World Post Day is to create awareness of the role of the postal sector in people's and businesses' everyday lives and its contribution to the social and economic development of countries.

Anti-Radiation Missile (RUDRAM)

New generation Anti-Radiation Missile (RUDRAM) was successfully Flight tested onto a radiation target located on Wheeler Island off the coast of Odisha.

- The **RUDRAM is first indigenous anti-radiation missile of the country for Indian Air Force (IAF),** being developed by Defence Research and Development Organisation (**DRDO**).

CHROME IAS ACADEMY

- The missile is integrated on **SU-30 MKI fighter aircraft** as the **launch platform**, having capability of varying ranges based on launch conditions.
- It has **INS-GPS navigation with Passive Homing Head** for the final attack.
- The RUDRAM hit the **radiation target with pin-point accuracy**.

PIB-OCTOBER 13th, 2020

GENERAL STUDIES - I

Topic- *The Freedom Struggle – its various stages and important contributors/contributions from different parts of the country.*

Dr. BALASAHEB VIKHE PATIL

Context

Recently, PM released the autobiography of Dr. Balasaheb Vikhe Patil and rename Pravara Rural Education Society in his honour.

Highlights

Prime Minister release the autobiography of Dr. Balasaheb Vikhe Patil and rename **Pravara Rural Education Society** as '**Loknete Dr. Balasaheb Vikhe Patil Pravara Rural Education Society**'.

Who was Dr. Balasaheb Vikhe Patil?

- Eknathrao alias Balasaheb Vikhe Patil served as Member of Lok Sabha for multiple terms.
- He was a prominent leader of Maharashtra and eldest son of Vithalrao Vikhe Patil, who started **Asia's first Co-operative sugar factory at Loni in Maharashtra**.
- He was awarded the prestigious civilian award **Padma Bhushan on 31 March 2010** for his outstanding work in the field of Social Work.
- His **autobiography is titled 'Deh Vechwa Karani'** which means 'dedicating one's life for a noble cause'.

Pravara Rural Education Society

- Pravara Rural Education Society was established in 1964 at Loni in Ahmednagar district.
- It is aimed at **providing world class education to the rural masses and empower the girl child**.
- The Society is currently serving with the core mission of educational, social, economical, cultural, physical and psychological development of students.

GENERAL STUDIES - I

Topic- *The Freedom Struggle – its various stages and important contributors/contributions from different parts of the country.*

Dr. RAM MANOHAR LOHIA

Context

The Prime Minister paid tributes to Dr. Ram Manohar Lohia on his punyatithi on 12 October.

About Dr. Ram Manohar Lohia

- Ram Manohar Lohia was born on 23 March 1910 at Akbarpur, currently part of the state of Uttar Pradesh, India.
- He was an **activist in the Indian independence movement and a socialist political leader**.
- During the last phase of British rule in India, he worked with the Congress Radio which was broadcast secretly from various places in Bombay until 1942.

Role in National movement

- Lohia was **one of the founders of the Congress Socialist Party and editor of its mouthpiece Congress Socialist**.
- In 1938, Lohia started to develop his own political standpoint by **critically examining positions held by the Gandhian leadership of the Congress and the Communists** who had poured into the CSP.
- In June 1940, he was arrested and sentenced to a **jail term of two years for delivering anti-war speeches**.
- Already released by the end of 1941, Lohia became one of the leading figures of the Central Directorate which **clandestinely tried to organise the Quit India revolt**, sparked by Gandhi in August 1942.
- Captured in May 1944, **he was incarcerated and tortured in Lahore Fort**.
- As one of the last high security prisoners, **Lohia, together with Jayaprakash Narayan, was finally released on 11 April 1946**.

After independence

- As a member of the **Congress Socialist Party** Lohia joined with that party when it left Congress.
- He remained a member of the Socialist Party when it fused in 1952 with the **Kisan Majdoor Praja Party to form the Praja Socialist Party**.
- He **lost to Nehru in 1962 general election in Phulpur**.
- He won Lok Sabha general election of 1967 from Kannauj but died a few months later on 12 October 1967.

GENERAL STUDIES - II

Topic- *Government policies and interventions for development in various sectors and issues arising out of their design and implementation.*

KAMDHENU DEEPAWALI ABHIYAN

Context

Rashtriya Kamdhenu Aayog begins nationwide campaign to celebrate “Kamdhenu Deepawali Abhiyan” – Promoting extensive use of cow-dung/ Panchgavya products this Diwali Festival.

Highlights

- **Rashtriya Kamdhenu Aayog (RKA)** has started a nation- wide campaign to celebrate “Kamdhenu Deepawali Abhiyan” this year on the occasion of Deepawali festival.
- It is encouraged by the response to **Gaumaya Ganesha Campaign**. It promotes usage of eco-friendly material in manufacture of idols for the Ganesha Festival.

- Through this campaign, the RKA is **promoting extensive use of cow-dung/ Panchgavya products** during this Diwali Festival.

Rashtriya Kamdhenu Aayog (RKA)

- Rashtriya Kamdhenu Aayog (RKA) has been constituted by Prime Minister **for the conservation, protection and development of cows and their progeny and for giving direction to the cattle development programmes.**
- RKA is **high powered permanent body to formulate policy** and to provide direction to the implementation of schemes related to cattle so as to give more emphasis on livelihood generation.
- RKA is trying to its best to implement the vision of 'Atma Nirbhar Bharat'.

Why it was needed?

- Livestock **economy sustains nearly 73 million households in rural areas.**
- Even though, **the country is largest producer of milk, the average milk yield in India is only 50% of the world average.**
- The low productivity is **largely due to deterioration in genetic stock, poor nutrition and unscientific management.**
- The trend needs to be reversed and popular perception about cow and cow based agriculture.
- The cow based industry need to be corrected immediately for social and economic rejuvenation of society particularly poor in rural areas.

Significance

- The Cow-centric economy can also help in achieving this goal by making its own humble contribution.
- For this purpose, RKA has been consistently endeavoring to increase the use of various cow- panchgavya products to raise the income of farmers, gaupalaks, youth, women, self-help groups and other stakeholders.

Mains Question:

'Even the country is largest producer of milk, the average milk yield in India is only 50% of the world average'. Discuss.

GENERAL STUDIES - II

Topic- Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

INDIA ENERGY MODELING FORUM

Context

Recently, NITI Aayog Announced Governing Structure of India Energy Modelling Forum.

Highlights

- India Energy Modelling Forum (IEMF)**—jointly launched by NITI Aayog and United States Agency for International Development (USAID) under the US–India Strategic Energy Partnership—on 2 July.

- NITI Aayog announced its governing structure on 8 October.
- The governing structure of IEMF will **consist of an inter-ministerial and a steering committee**.
- The inter-ministerial **committee will be convened by NITI Aayog and headed by its CEO**.

It will comprise senior officials from the ministries of

1. Petroleum and natural gas;
2. Power;
3. New and renewable energy;
4. Coal;
5. Environment, forest and climate change; and
6. Department of science and technology.

This committee will review the studies/modelling activities and provide directions and new areas of research.

Background

India and the US have a long-standing collaboration on energy.

- The **Sustainable Growth pillar**, one of the four of the US–India SEP, is being chaired by NITI Aayog and USAID.
- **This pillar brings together Indian and US researchers and decision-makers to collaborate in three focal areas: energy data management; energy modelling, and promotion of low carbon technologies.**
- IEMF was launched under the area of energy modelling.
- Through collaborations with global energy modelling forums, **such as Stanford Energy Modelling Forum and Energy Modelling Platform for Europe**, IEMF hopes to share and learn from best practices.

What is the India Energy Modeling Forum?

- **India Energy Modeling Forum (IEMF)** is a part of the Sustainable Growth pillar of the US–India Strategic Energy Partnership (SEP).
- It aims to engage Indian researchers, knowledge partners, think tanks and national and international government agencies and departments for modelling and long-term energy planning.

The Forum aims to:

- Provide a platform to examine important energy and environmental related issues;
- Inform decision-making process to the Indian government;
- Improve cooperation between modelling teams, government, and knowledge partners, funders;
- Facilitate exchange of ideas, ensure production of high-quality studies;
- Identify knowledge gaps at different levels and across different areas;
- Build capacity of Indian institutions.

What is 'Energy Modelling'?

Energy modeling or **energy system modeling is the process of building computer models of energy systems in order to analyze them.**

- Such **models often employ scenario analysis to investigate different assumptions** about the technical and economic conditions at play.
- Outputs may include the system feasibility, greenhouse gas emissions, cumulative financial costs, natural resource use, and energy efficiency of the system under investigation.

What are Energy Modelling Forums (EMF)?

The **Energy Modelling Forum (EMF)** in USA was established in 1976 at Stanford University.

- It aimed to connect leading modelling experts and decision makers from government, industry, universities, and other research organizations.
- The forum also provides an unbiased platform to discuss the contemporary issues revolving around energy and environment.

Mains Question:

Discuss the objectives and significance of Indian Energy Modelling Forum.

PIB-OCTOBER 14th, 2020

GENERAL STUDIES - II

Topic- *Government policies and interventions for development in various sectors and issues arising out of their design and implementation.*

LTC STIMULUS

Context

Ministry of Finance released a statement on misinterpretation of LTC stimulus and its benefits.

What is the issue?

- A report has appeared in the Economic Times Markets which gives the impression that the LTC voucher scheme for Government employees may not be attractive.
- The piece which it relies on has a serious factual error in its understanding of how Government LTC works.

What is LTC?

Salaried employees are given **income-tax exemption with respect to certain allowances** such as house rent allowance (HRA), gratuity allowance, leave encashment, **leave travel allowance (LTA)**.

- Section 10(5) of the Income-Tax Act, 1961, pertains to such I-T exemption for LTA given to an employee.
- This **LTA exemption can be claimed if employee wherever provided for travel undertaken by them or their families within India.**
- Central government employees get **LTC in a block of four years (one to anywhere in India and one hometown or two for home town)** in the form of air or rail fare, as per pay scale or entitlement.

What is LTC cash voucher scheme?

Due to Covid-19, employees are not in a position to avail of LTC in the current block of 2018-21.

- **Under LTC Cash Voucher Scheme, government employees can opt to receive cash amounting to leave encashment in lieu of LTC during 2018-21** along with full payment of leave encashment and fare as per three slabs depending on entitlement.
- This **money must be spent on goods attracting GST of 12%** or more from a GST registered vendor through digital mode GST invoice will be required to be produced.
- There are **tax concessions for LTC tickets available for state governments and private sector too**, if they choose to give such facility, these employees too can benefit.

What it means & will private-sector employees benefit?

To avail the tax exemption employees are required to either purchase goods or services which are 3 times the amounts which would be claimed as a concession in respect of travel tickets within 31 March 2021.

- **The conditions to be met are:** the GST rate on such purchases/services should be 12% or more, expenses should be incurred through digital mode, GST invoices is required to be produced.
- Since this benefit is available to private sector employees as well, it is important for companies to look at their policies around Leave Travel concessions and amend them in line with the above to extend the tax benefits to its employees.

Government's clarification

The Government LTC is quite different from Leave Travel Allowance in the corporate sector.

- A **person claiming LTC is not eligible unless he actually travels**; if he fails to travel the amount is deducted from his pay and he may be liable for disciplinary action.
- He does not have the option of keeping the money and paying income tax.

GENERAL STUDIES - II

Topic- *Government policies and interventions for development in various sectors and issues arising out of their design and implementation.*

MEMBERS OF PARLIAMENT LOCAL AREA DEVELOPMENT SCHEME (MPLADS)

What is the MPLAD Scheme?

- The Members of Parliament Local Area Development Scheme (MPLADS) is an ongoing **Central Sector Scheme which was launched in 1993-94**.
- **The Ministry of Statistics and Programme Implementation** has been responsible for the policy formulation, release of funds and prescribing monitoring mechanism for implementation of the Scheme.

What it does?

The Scheme enables the Members of Parliament to recommend works for creation of durable community assets based on locally felt needs to be taken up in their constituencies in the area of national priorities namely drinking water, education, public health, sanitation, roads etc.

Key features

- **The MPLADS is a Plan Scheme fully funded by Government of India.**
- The annual MPLADS fund entitlement **per MP constituency is Rs. 5 crore.**
- MPs are to recommend every year, works costing at least 15 per cent of the MPLADS entitlement for the year for areas inhabited by Scheduled Caste population and 7.5 per cent for areas inhabited by ST population.
- **Lok Sabha Members** can recommend works within their Constituencies.
- **Elected Members of Rajya Sabha** can recommend works within the State of Election.
- **Nominated Members** of both the Rajya Sabha and Lok Sabha **can recommend works anywhere in the country.**

Release of Funds

- **The funds released under the scheme are non-lapsable.**
- Funds are released in the form of grants in-aid directly to the district authorities.
- The liability of funds not released in a particular year is carried forward to the subsequent years, subject to eligibility.

One MP – One Idea

- In order to foster a grass-root bottoms-up approach, there is a need for seeking out and campaigning for ideas that have the potential to solve challenges.
- Accordingly, 'One MP – One Idea' Competition may be held in each Lok Sabha constituency annually to select the three best innovations for cash awards and certificate of appreciation for next five best innovations.

GENERAL STUDIES - III

Topic- Various Security forces and agencies and their mandate.

CENTRAL FINGER PRINT BUREAU

Context

Union Minister of State for Home, inaugurated the 21st All India Conference of Directors, Fingerprint Bureau 2020.

Highlights

- The 21st All India Conference of Directors, Fingerprint Bureau 2020 was recently inaugurated.
- On this occasion a eCyber Lab set up by the National Crime Records Bureau (NCRB) was also inaugurated.
- Although **law and order is a state subject**, the Union Government has an important role in monitoring and tracking crime, in modernization of police forces, and in capacity building and in extending assistance to State governments in improving policing.

About Central Finger Print Bureau (CFPB)

The **world's first Finger Print Bureau was set up in Calcutta in 1897.**

CFPB is the **apex body** in the country which coordinates, guides, monitors and provides technical support to the State Finger Print Bureaux, as well as investigating agencies and international organizations in all matters related to Finger Print Science.

Objectives

- To maintain Finger Print record slips of the persons convicted under various Acts/ sections of IPC.
- To conduct search relating to unidentified Interstate arrested/suspected persons received from police stations and other investigating agencies.
- To maintain the fingerprints of international criminals and red corner notices sent by Interpol and to conduct search on references received from foreign countries, through Interpol.
- To co-ordinate the work of the State Finger Print Bureaux and to give necessary guidance in all matters relating to Fingerprint Science.
- To impart training in Fingerprint Science to State/Central Police personnel and personnel from foreign countries under MEA sponsored scheme.

GENERAL STUDIES - II

Topic– *e-governance applications, models, successes, limitations, and potential; citizens charters, transparency & accountability and institutional and other measures.*

ONLINE DISPUTE RESOLUTION (ODR)

Context

Catalyzing Online Dispute Resolution (ODR) in India

What is the Online Dispute Resolution (ODR)?

- Online Dispute Resolution or ODR is a process to settle disputes outside courts, combining technology and **alternative dispute resolution (ADR)**
- ***ODR covers disputes that are settled over the internet having been initiated in cyberspace but with a source outside it i.e. offline.***
- Originally, arbitration was intended as an alternative to going to court for various kinds of disputes but with time the method itself has become complex and expensive.
- ODR offers a faster, transparent and accessible option for many companies to resolve disputes online particularly those who have high volume and low-value cases.

ODR Methods

Online Dispute Resolution can be seen as an online equivalent of ADR as it primarily involves the use of negotiation, mediation or arbitration for dispute resolution.

- **Synchronous ODR** is a method of dispute resolution where the parties communicate with each other in real-time by using various video-conferencing applications.
- **Asynchronous form** is where communication is not conducted in real-time but via email or other such communication applications.

ODR PLATFORMS

CADRE (Centre for Alternate Dispute Resolution Excellence)

- It is a website based platform for ODR.
- First, one party approaches the platform which then contacts the other party.
- If both the parties agree then an arbitrator is appointed and time-stamped intimations are sent through e-mails or WhatsApp.

- Usually, the parties do not meet face to face but they make contact electronically via video calls.
- The decisions that are legally binding come within 20-25 days of time.
- CADRE has been resolving tenant and rental contract disputes for NestAway an online home rental startup.
- CODR or Centre for Online Dispute Resolution positions itself as an institution that will administer cases online end to end.

SAMA

- It is another ODR platform that facilitates easy access to high-quality ADR service providers and helps people to resolve disputes online.
- SAMA is being used as an ODR platform by ICICI Bank to resolve nearly 10,000 disputes with values going up as high as INR 20 lakh.
- AGAMI is yet another non-profit ODR platform that aspires to create a better system of law and justice by providing time-efficient and feasible dispute resolution methods.

Benefits of ODR

- Online Mediation is coming out to be the most favorable form of dispute resolution with nearly 70% of ODR platforms using the same to reach a conclusion.
- Typically online mediation starts with sending an email to parties that contain basic information about the proceedings followed by virtual meetings to be conducted in the chat rooms.
- Electronic Arbitration is a less popular method of online dispute resolution but it covers up the process up to a certain extent.

Why it is needed?

- While courts are becoming digitized through the efforts of the judiciary, more effective, scalable, and collaborative mechanisms of containment and resolution are urgently needed.
- ODR can help resolve disputes efficiently and affordably.

Significance

In the past half-decade, India has seen significant growth in the volume of online transactions, no other position would be more convenient to accept ODR as an efficient mechanism to resolve disputes and hence implement a fast and fair dispute resolution system.

FOR PRELIMS

REGIONAL RAW DRUG REPOSITORY FOR AYUSH SYSTEMS

*Recently, Regional Raw Drug Repository for AYUSH Systems launched at **Chennai**.*

Highlights

- Regional Raw Drug Repository (RRDR) are **important components of the Centrally Sponsored Scheme of National AYUSH Mission**, which plays an important role in medicinal plants cultivation.

- This RRDR would play a **stellar role in collection, documentation, and authentication of raw drugs collected from the agro-climatic region, that is, the Southern Plateau Region.**
- Medicinal Plants form the major resource base of our indigenous health care traditions.
- This RRDR **will act as an accredited reference library for authentication of raw drugs** and establish standard protocols and keys for authentication of raw drug used in the herbal industries.

PIB-OCTOBER 15th, 2020

GENERAL STUDIES-II

Topic- *Important International institutions, agencies and fora- their structure, mandate.*

FOOD AND AGRICULTURE ORGANIZATION

Context

The 75th Anniversary of Food and Agriculture Organization (FAO) was celebrated on 16th October 2020.

Highlights

- Prime Minister will release a **commemorative coin of Rs 75 denomination to mark the long-standing relation of India with FAO.**
- Prime Minister will also dedicate to the **Nation 17 recently developed biofortified varieties of 8 crops.**
- The event marks the highest priority accorded to agriculture and nutrition.

About Food and Agriculture Organization (FAO)

The Food and Agriculture Organization (FAO) is a **specialized agency of the United Nations** that leads international efforts to defeat hunger.

- Its Latin motto, **fiat panis, translates to “let there be bread”.**
- It was **founded in October 1945.**
- **The FAO is headquartered in Rome, Italy** and maintains regional and field offices around the world, operating in over 130 countries.
- **Composed of** 194 member states, the FAO is governed by a biennial conference representing each member country and the European Union, which elects a 49-member executive council.

Objective of FAO

- The main goal is to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives.

India and FAO

India has had a historic association with FAO.

- Indian Civil Service Officer Dr. Binay Ranjan Sen was the Director General of FAO during 1956-1967.
- The World Food Programme, **which has won the Nobel Peace Prize 2020**, was established during his time.

- India's proposals for the **International Year of Pulses in 2016** and the **International Year of Millets 2023** have also been endorsed by FAO.

GENERAL STUDIES-II

Topic- *Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.*

WORLD BANK'S STARS PROJECT

Context

Cabinet approves Rs. 5718 crore World Bank aided project STARS for Improving School Education.

Highlights

- Implementation of the **Strengthening Teaching-Learning and Results for States (STARS)** project with a total project cost of Rs 5718 crore with the financial support of World Bank amounting to US \$ 500 million (approximately Rs. 3700 crore).
- STARS project would be implemented as a **new Centrally Sponsored Scheme under Department of School Education and Literacy, Ministry of Education (MOE)**.
- Setting up and support to the National Assessment Centre, **PARAKH as an independent and autonomous institution** under Department of School Education and Literacy, MOE.

What is project STARS?

STARS stands for Strengthening Teaching-Learning and Results for States Program (STARS).

- The project aims **to improve the quality and governance of school education in six Indian states**.
- Six states are- **Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Odisha, and Rajasthan**.
- Some 250 million students (between the age of 6 and 17) in 1.5 million schools, and over 10 million teachers will benefit from the program.
- The STARS project seeks **to support the states in developing, implementing, evaluating and improving interventions with direct linkages to improved education outcomes and school to work transition strategies for improved labour market outcomes**.

The STARS Project has two major components:

At the national level, the project envisages the following interventions which will benefit all states and UTs:

- **To strengthen MOE's national data systems** to capture robust and authentic data on retention, transition and completion rates of students.
- To support MOE in **improving states PGI scores by incentivizing states governance reform** agenda through SIG (State Incentive Grants).
- To support **the strengthening of learning assessment systems**.
- To support MOE's **efforts to establish a National Assessment Center (PARAKH)**.
- Further, the STARS project includes a **Contingency Emergency Response Component (CERC)** under the National Component which would enable it to be more responsive to any natural, man-made and health disasters.

At the State level, the project envisages:

- Strengthening Early Childhood Education and Foundational Learning.
- Improving Learning Assessment Systems.
- Strengthening classroom instruction and remediation through teacher development and school leadership.
- Governance and Decentralized Management for Improved Service Delivery.
- Strengthening Vocational education in schools through mainstreaming, career guidance and counselling, internships and coverage of out of school children.

How STARS is beneficial for India?

STARS will support India's vision 'Education for All' through a series of initiatives that are listed below:

1. **Customised local-level Solutions:** The STARS project will focus on direct delivery of education services at the state, district and sub-district levels by providing enhanced customised local-level solutions in improving schools.
2. **Address specific demands:** STARS will address demands from stakeholders and parents, for providing better quality education.
3. **Attention to students from vulnerable sections:** The program will give special attention to students from vulnerable sections.
4. **Changing job trend:** The STARS program will help the students in keeping up with the rapidly changing needs of the job markets.
5. **Equipping teachers:** In the technology-driven era, the program will also equip the teachers to achieve a better learning outcome as they are playing a vital role in providing quality education. The program will carry out needs-based training for teachers.
6. **Investment in India's human capital:** The program will also invest in India's human capital program by strengthening foundational learning for the students of Classes 1 to 3 and further preparing them with cognitive, socio-behavioural and language skills to meet future labour market needs.

What are the challenges with the project?

- The STARS project **fails to address basic capacity issues such as vacancies across the education system.**
- It must be noted that without a capable and motivated faculty, the education system cannot be improved. This can only be done by educating teachers and making them familiar with technology through training.
- The **World Bank has ignored the decentralization of decision making by ignoring the devolution of funds.**
- **Excessive use of Information and Communications Technology worsens the challenges rather than simplifying them.** It can only be fruitful if the pre-conditions are fulfilled.

Mains Question:

Outsourcing basic governance functions by 'expanding private initiatives' and 'reducing government tasks' will not make education 'more relevant to local needs'. Discuss

Topic– Science and Technology- developments and their applications and effects in everyday life.

NATIONAL TECHNICAL TEXTILES MISSION

Context

CCEA approves Creation of National Technical Textiles Mission.

Highlights

- The Cabinet Committee on Economic Affairs has given its approval to set up a National Technical Textiles Mission with a total outlay of Rs 1480 Crore.
- The Mission would have a four year implementation period from FY 2020-21 to 2023-24.

What are the Technical Textiles?

- *Technical Textiles are futuristic and nice segment of textiles, which are used for various applications ranging from agriculture, roads, railway tracks, sportswear, health on one end to bullet proof jacket, fire proof jackets, high altitude combat gear and space applications on other end of spectrum.*
- It is the Textile material and products manufactured primarily for their Technical performance and functional properties rather than aesthetic and decorative characteristics.

Applications of Technical Textiles

- **Technical Textiles** materials have provided innovative engineering solutions for several applications in civil and geotechnical engineering, for infrastructure water resources projects.
- **Technical Textiles products are divided into 12 broad categories** depending upon their application areas:

Agrotech, Buildtech, Clothtech, Geotech, Hometech, Indutech, Mobiltech, Meditech, Protech, Sportstech, Oekotech, Packtech.

Benefits

Technical textiles will be used in **agriculture, aquaculture, dairy, poultry, JalJivan Mission, Swachh Bharat Mission, Ayushman Bharat.**

It will bring an overall improvement in:

- *Cost economy,*
- *Water and soil conservation,*
- *Better agricultural productivity, and*
- *Higher income to farmers per acre of land holding,*
- *Promotion of manufacturing and exports activities in India.*

India in Technical Textiles

- India shares nearly 6% of world market size of 250 Billion USD. However, the annual average growth of the segment is 12%, as compared to 4% world average growth.

- Penetration level of technical textiles is low in India at 5-10%, against 30-70% in advanced countries. The Mission aims at improving penetration level of technical textiles in the country.

Need

- India has multi climatic conditions across its width and length, various parts are subjected to floods and environmental degradation.
- In some of the terrains, the flood management and control can rely on Technical Textiles tubes, containers and bags.
- Technical Textiles have been found to perform better than concrete as water protection component because of permeability, flexibility and ease of underwater placement.

FOR PRELIMS

ADVANCED HIGH-RESOLUTION AIR QUALITY EARLY WARNING SYSTEM

IMD operationalises Advanced high-resolution Air Quality Early Warning System for Delhi and India.

Highlights

Ministry of Earth Sciences is constantly striving to improve Air Quality Early Warning System by incorporating various changes in Air Quality Forecast Models.

- The Air Quality forecast model **System for Integrated modelling of Atmospheric composition (SILAM)** for India has been further improved.
- It is done by implementing **global emission inventories CAMS-GLOB v2.1** supplemented with EDGAR v4.3.2 for coarse and mineral-fine anthropogenic particulate matter at 10km resolution.
- A very high resolution city scale model **ENFUSER (ENVironmental information FUsion SERVICE)** for Delhi also has been operationalized to identify the air pollution hotspots and pollution upto street level.

Key features of Air Quality Forecast Models

SILAM and ENFUSER have been developed in technical collaboration with **Finnish Meteorological Institute (FMI)**.

- **The speciality of the ENFUSER is:** the high utilization of measurement data such as air quality observations, a detailed description of the road network, buildings, land-use information, high resolution satellite images, ground elevation and population data.
- The **ENFUSER natively taps into the operative IMD's regional SILAM access point.**
- The ENFUSER results are being evaluated with the satellite measurements and observations, model is found to capture the hotspots over Delhi very well.
- The **SILAM models** have been extensively validated against observations over Indian region.
- **Air Quality forecast model WRF-Chem** has also been updated with high-resolution land use land cover information to improve the air quality forecast.
- The **AQ forecast is also available for some other cities at 10km resolution.**

GENERAL STUDIES-II

Topic- Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

AYURVEDA DAY AND DHANWANTRI JAYANTI

Context

The Ayurveda Day is being observed every year from 2016, on the day of **Dhanwantri Jayanti**. This year it falls on 13th November 2020.

Highlights

Theme of 5th Ayurveda Day, 2020: 'Ayurveda for Covid-19'.

The Objective of Ayurveda Day

- To focus on strengths of Ayurveda and its unique treatment principles,
- To work towards reducing the burden of disease and related mortality by utilising the potential of Ayurveda,
- To tap into the potential of Ayurveda to contribute towards National Health Policy and National Health programmes, and
- To promote Ayurvedic principles of healing in society.

National Ayurveda Day logo

The logo for the **National Ayurveda Day** has the following elements.

- The silhouette of **lord Dhanwantari** in the centre of the logo represents the lord of Medicine.
- The **five petals in logo symbolize Pancha Mahabhuta** and three circles beneath signify **Vata, Ptta, Kapha, the fundamental principles of Ayurveda**. An oval leaf encircling the elements depicts the essence of healing through Nature based on these fundamental principles.



CHROME IAS ACADEMY

Dhanwantari Jayanti

Lord Dhanvantari is **considered an Avatar of Maha Vishnu**.

- He appears in the Vedas and Puranas as the physician of the gods, and the god of Ayurvedic medicine.
- Dhanwantari Jayanti, the **birthday of Lord Dhanwantari is celebrated on 13th lunar day of darker side (Krishnapaksham) in the Aswini Month (Oct/Nov)**.
- It is believed that on this day, **Lord Dhanwantari emerged from palazhy with Amurutha Kalasam**.

Dhanwantari Jayanti celebration

Dhanwantri Homam is performed by invoking Lord Dhanvantri followed by the chanting of **Dhanwantari Mantra** for health and then performing the Homam with **108 medicinal herbs**, this fills the surrounding atmosphere with medicinal properties, thereby alleviates all physical ailments of the people.

- This homam is a powerful remedy to restore one's health and helps one to recover from any serious illness.
- It is good to intake the remaining of the homam, 'Aamalakam & Sambatham' for both the good Health and Long life.

GENERAL STUDIES-II

Topic- *Government policies and interventions for development in various sectors and issues arising out of their design and implementation.*

'KAPILA' KALAM PROGRAM

Context

Union Education Minister launched '**KAPILA**' Kalam Program for IP Literacy and Awareness Education campaign will bring awareness towards patenting of inventions.

Highlights

'KAPILA' Kalam Program for Intellectual Property Literacy and Awareness campaign was launched on the **89th birth anniversary of former President and Scientist Late Dr. APJ Abdul Kalam**.

- **Under this campaign**, students pursuing education in higher educational institutions will get information about the correct system of application process for patenting their invention and they will be aware of their rights.
- **The Institution Innovation Council (IIC 2.0)** annual report was also presented on the occasion and the launch of IIC 3.0 was announced.
- It has also been decided to celebrate the **week of October 15th to 23rd as 'Intellectual Property Literacy Week'**. The IIC 3.0 website was also launched.

Institution Innovation Council

The Institution Innovation Council (IICs) was **established by the Ministry of Education in 2018**.

- So far, **IICs have been established in about 1700 higher educational institutions**.
- IIC will be established in 5000 higher educational institutions under IIC 3.0.

- For India to become a \$5 trillion economy, we have to be more aware of protecting intellectual property.
- Research students and scientists of India engaged in research and development must apply to preserve and safeguard their inventions.

GENERAL STUDIES-III

Topic- Conservation, environmental pollution and degradation, environmental impact assessment.

WASTE TO ENERGY PLANT

Context

Indian Railways commissions first Waste to Energy Plant in Bhubaneswar

Highlights

- **Indian Railways has commissioned country's first governmental Waste to Energy Plant.**
- It will have capacity of 500 Kg waste per day.
- The plant will be established in **Mancheswar Carriage Repair Workshop at Bhubaneswar** in East Coast Railway.

What is Waste to Energy Plant?

- This Waste to Energy Plant, **a patented technology called POLYCRACK**, is first-of-its-kind in Indian Railways and fourth in India.
- It is world's first patented heterogeneous catalytic process which converts multiple feed stocks into hydrocarbon liquid fuels, gas, carbon and water.
- **Polycrack Plant can be fed with all types of Plastic, Petroleum sludge, Un-segregated MSW (Municipal Solid Waste) with moisture up to 50%, E-Waste, Automobile fluff, Organic waste including bamboo, garden waste etc., and Jatropha fruit and palm bunch.**
- Waste generated from Mancheswar Carriage Repair Workshop, Coaching Depot and Bhubaneswar Railway Station will be feeder material for this plant.

How this works?

- **The process is a closed loop system and does not emit any hazardous pollutants** into the atmosphere.
- The combustible, non-condensed gases are re-used for providing energy to the entire system and thus, the only emission comes from the combustion of gaseous fuels.
- The emissions from the combustion are found to be much less than prescribed environmental norms.
- **This process will produce energy in the form of Light Diesel Oil** which is used to light furnaces.

Features of Polycrack Technology

Polycrack has the following advantages over the conventional approach of treating solid waste:

- Pre-segregation of waste is not required to reform the waste. Waste as collected can be directly fed into Polycrack.
- It has high tolerance to moisture hence drying of waste is not required.

- *Biological decomposition is not allowed as the Waste is treated as it is received.*
- *All constituents are converted into valuable energy thereby making it Zero Discharge Process.*
- Gas generated in the process is re-used to provide energy to the system thereby making it self-reliant and also bring down the operating cost.
- *There is no atmospheric emission* during the process unlike other conventional methods except for combustion gases which have pollutants less than the prescribed norms the world over.
- Operates around 450 degrees, making it a low temperature process when compared with other options.

GENERAL STUDIES-II

Topic- Various Security forces and agencies and their mandate.

NARCOTICS CONTROL BUREAU (NCB)

Context

Narcotics Control Bureau (NCB) affected **multiple Pan-India operations** wherein Mumbai emerged as major destination.

- NCB is an **Indian federal law enforcement and intelligence agency under the Ministry of Home Affairs, Government of India.**
- The agency is tasked with combating drug trafficking and the use of illegal substances under the provisions of Narcotic Drugs and Psychotropic Substances Act.
- **Established in 1986**, it is responsible for coordination with the Indian state governments and other central departments, implementation of India's international obligations with regard to drug trafficking, and assisting international and foreign drug law enforcement agencies.

Function

The chief purpose of the **Narcotics Control Bureau is to fight drug trafficking on an all-India level.**

- It works in close cooperation with the **Customs and Central Excise/GST, State Police Department, Central Bureau of Investigation (CBI), Central Economic Intelligence Bureau (CEIB) and other Indian intelligence and law enforcement agencies** both at the national and states level.
- The NCB also provides resources and training to the personnel of India's Drug Law Enforcement Agencies in fighting drug trafficking.
- The NCB also monitors India's frontiers to track down points where smuggling activities take place with foreign traffickers.

FOR PRELIMS

MAHILA KISAN DIWAS

International Day of Rural Women (**IDRW**) is observed on 15th October.

- It is a UN observance, which recognizes 'the critical role and contribution of rural women, including indigenous women, in enhancing agricultural and rural development, improving food security and eradicating rural poverty.'
- **Government of India has also declared 15th October as Mahila Kisan Diwas.**
- The Union Agriculture Ministry celebrated, '**Mahila Kisan Diwas**' or the Day of Women Agriculturists on October 15 for the first time in India.

78th EME Corps Day

The Corps of Electronics and Mechanical Engineers, **which celebrated its 78th Corps Day on 15 Oct 2020.**

- It is responsible **to provide integrated engineering support to the entire range of equipment and weapon systems of the Indian Army** during complete life cycle from design to discard thus enhancing the Army's combat potential by exploiting the power of technology and innovation.
- The Corps of EME has achieved new highs in various fields and has proved to be a force multiplier in enhancing combat effectiveness.

PIB-OCTOBER 17th, 2020

GENERAL STUDIES- I

Topic– *Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times.*

KALA SANSKRITI VIKAS YOJANA (KSVY)

Context

Culture Ministry **issues guidelines** for holding cultural events/activities in Virtual / Online mode under various scheme components of **Central Sector Scheme 'Kala Sanskriti Vikas Yojana'** (KSVY).

Highlights

- The Covid outbreak has had a substantial impact on the Performing Arts & Cultural sector with in-person exhibitions, events, and performances either cancelled or postponed.
- The **guidelines will enable artists to avail benefits** under KSVY in virtual mode also and will ensure continued financial assistance to tide over the present crisis.

About the Kala Sanskriti Vikas Yojana

Kala Sanskriti Vikas Yojana (KSVY) is **an umbrella scheme** under Ministry of Culture **for the promotion of art and culture in the country.**

KSVY has the following sub-schemes through which financial assistance is provided to cultural organizations:

1. Scheme of Financial Assistance for Promotion of Art and Culture.
2. Scheme of Financial Assistance for Creation of Cultural Infrastructure.
3. Scheme for Safeguarding the Intangible Cultural Heritage.

Scheme of Financial Assistance for Promotion of Art and Culture

The scheme consists of five components:

1. Repertory grant
2. Financial assistance to cultural organizations with national presence
3. Cultural function & production grant (CFPG)
4. Financial assistance for the preservation & development of cultural heritage of the himalayas
5. Financial assistance for the preservation & development of buddhist/tibetan organization

Scheme of financial assistance for creation of cultural infrastructure:

The scheme consists of three components:

1. Financial Assistance for Building Grants including Studio Theatres
2. Financial Assistance for Allied Cultural Activities
3. Financial Assistance for Tagore Cultural Complexes(TCC)

Scheme for Safeguarding the Intangible Cultural Heritage

- This scheme was launched by the **Ministry of Culture in 2013 for safeguarding the intangible cultural heritage and diverse cultural traditions** of the country.
- **Objective:** Reinvigorating and revitalizing various institutions, groups, NGOs, etc. so that they may engage in activities/projects for strengthening, protecting, preserving and promoting the rich intangible cultural heritage of India.

Significance of Culture Ministry's guidelines

- There were intensive efforts by the Artists & the institutions of the Ministry of Culture to provide alternative or additional services through digital platforms with proper documentation of the events.
- Ministry of Culture (**Performing Arts Bureau**) implements many schemes under its Kala Sanskriti Vikas Yojana (KSVY), where the grants are sanctioned/approved for holding programs/activities which involve large audience.

GENERAL STUDIES- II

Topic– Important International institutions, agencies and fora- their structure, mandate.

WORLD FOOD DAY

Context

Union Minister for Health and Family Welfare today presided over an event to celebrate 'World Food Day'.

Highlights

- The event was **organized by FSSAI**.
- **"FSSAI's Eat Right India movement** targets to promote safe and healthy food for everyone in an environmentally sustainable way.
- A key focus this year is **elimination of Trans Fats from the food supply chain**.

World Food Day 2020

United Nation's **Food and Agriculture Organisation (FAO)** marked **October 16** of every year as **World Food Day** in the year **1979**.

- World Food Day 2020 also marks the **75th anniversary of FAO**.
- Initially, World Food Day was launched to commemorate the establishment of FAO.
- Gradually, the day turned into a global event, creating awareness about food shortage and reviving food systems across the globe.

World Food Day 2020 Theme: *"Grow, nourish, sustain. Together. Our actions are our future."*

Significance

World Food Day is **calling for global solidarity to help all populations**, and especially **the most vulnerable, to recover from the crisis, and to make food systems more resilient and robust**.

- It aims to make most vulnerable withstand increasing volatility and climate shocks, deliver affordable and sustainable healthy diets for all, and decent livelihoods for food system workers.
- This will require improved social protection schemes and new opportunities offered through digitalization and e-commerce, but also more sustainable agricultural practices that preserve the Earth's natural resources, our health, and the climate.

GENERAL STUDIES- II

Topic– *Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.*

SHANGHAI COOPERATION ORGANISATION

Context

India Hosts Virtual Summit of Ministers of Justice of Shanghai Cooperation Organisation (SCO).

Highlights

- The Ministers of (Law and) Justice and senior officials / experts from the Ministries of Law & Justice of **India, Kazakhstan, China, Kyrgyz Republic, Pakistan, Russian Federation, Tajikistan and Uzbekistan** participated in the three days deliberations.
- This Ministerial meeting was preceded by officer level deliberations.

About Shanghai Cooperation Organisation (SCO)

- The Shanghai Cooperation Organisation (SCO) is a **permanent intergovernmental international organization**.
- It was **created 15 June 2001 in Shanghai (China)**.
- The SCO Charter was signed in 2002, and entered into force in 2003.
- The **SCO's official languages are Russian and Chinese**.

Founding members of SCO were-

1. The Republic of Kazakhstan,
2. The People's Republic of China,
3. The Kyrgyz Republic,
4. The Russian Federation,

5. The Republic of Tajikistan,
 6. The Republic of Uzbekistan.
- It was preceded by the Shanghai Five mechanism.

Background

- **Kazakhstan, China, Kyrgyzstan, Russia and Tajikistan** were members of the **Shanghai Five**, Prior to the creation of SCO in 2001.
- **Shanghai Five (1996)** emerged from a series of border demarcation and demilitarization talks which the four former Soviet republics held with China to ensure stability along the borders.
- **Uzbekistan joined the organisation in 2001**, following this the **Shanghai Five was renamed the Shanghai Cooperation Organisation (SCO)**.
- **India and Pakistan became members in 2017**.

Member Countries

Now, SCO is comprised of Eight Member countries. Namely-

1. **Kazakhstan**
2. **China**
3. **Kyrgyzstan**
4. **Russia**
5. **Tajikistan**
6. **Uzbekistan**
7. **India**
8. **Pakistan**

Objectives of SCO

- Strengthening mutual trust and neighbourliness among the member states;
- Promoting their effective cooperation in politics, trade, the economy, research, technology and culture, as well as in education, energy, transport, tourism, environmental protection, and other areas;
- Making joint efforts to maintain and ensure peace, security and stability in the region;
- Moving towards the establishment of a democratic, fair and rational new international political and economic order.

Significance for India

- The SCO's significance for India lies in economics and geopolitics with the Eurasian states.
- SCO is a potential platform to advance India's Connect Central Asia policy. The SCO member states occupy the huge landmass adjacent to India's extended neighbourhood where India has both economic and security imperatives.
- Importance of SCO-Afghanistan Contact Group to stabilise Afghanistan. SCO membership provides India a vital counter to some of the other groupings it is a part of.
- The SCO provides the only multilateral platform for India to deal in close proximity with Pakistan and Afghanistan.

Mains Question:

What Shanghai Cooperation Organisation (SCO) summit means for India's global and regional interests?

FOOD AND AGRI WEEK 2020

The India – International Food & Agri Week is being organised from 16th to 22nd October 2020.

- **CII in association with** the Ministry of Agriculture & Farmers' Welfare, Ministry of Fisheries & Animal Husbandry and Ministry of Food Processing Industries, Government of India, is organizing its first ever Virtual **CII Agro & Food Tech : India – International Food & Agri Week** on **CII HIVE – virtual platform**.
- The focus of this agro and food tech is the use of technology in the field of food and agriculture sector to increase the income of farmers.

National Security Guard (NSG)

36th Raising Day of the National Security Guard (NSG) was held at NSG HQ in Manesar, Gurugram.

Highlights

The National Security Guard (NSG) is a **counter terrorism unit under the Indian Ministry of Home Affairs (MHA)**.

- It was **raised in 15th October 1984**, following **Operation Blue Star, Akshardham Temple attack and the assassination of Indira Gandhi**, "for combating terrorist activities with a view to protect states against internal disturbances".
- It is not **categorised under the uniform nomenclature of Central Armed Police Forces**.
- It has a Special Forces mandate, and its **core operational capability is provided by the Special Action Group (SAG) which is drawn from the Indian Army**.
- The **Special Rangers Group (SRG)**, the police component of NSG, which also handles VIP security, is composed of personnel on deputation from other Central Armed Police Forces and State Police Forces.
- The NSG personnel are often referred to in the media as **Black Cats** because of the black outfit and black cat insignia worn on their uniform.

PIB-OCTOBER 19th, 2020

GENERAL STUDIES-III

Topic- *Achievements of Indians in science & technology; indigenization of technology and developing new technology.*

SUPPLY CHAIN NETWORK OF BIOFUELS

Context

IIT Hyderabad uses artificial intelligence to study supply chain network of biofuels.

Why this study is being done?

- Bio-derived fuels are gaining widespread attention among the scientific community across the world.

- The *work on biofuels is in response to the global call for reducing carbon emissions associated with the use of fossil fuels.*

Research in India

- Researchers of the *Indian Institute of Technology (IIT) Hyderabad* have started using *computational methods to understand the factors and impediments in incorporating biofuels into the fuel sector in India.*
- *A unique feature of this work* is that the framework considers revenue generation *not only as an outcome of sales of the biofuel but also in terms of carbon credits via greenhouse gas emission savings throughout the project lifecycle.*

Outcome

- The model has shown that if bioethanol is integrated with mainstream fuel, the costs associated with it are follows: *production cost 43 per cent, import 25 per cent, transport 17 per cent, infrastructure 15 per cent, and inventory 0.43 per cent.*
- The model has also shown that the feed availability to the tune of at least 40 per cent of the capacity is needed to meet the projected demands.

What are the Biofuels?

- Biofuel is the *any fuel that is derived from biomass*—that is, plant or algae material or animal waste.
- Any *hydrocarbon fuel that is produced from an organic matter* (living or once living material) in a short period of time (days, weeks, or even months) is considered a biofuel.
- Since such feedstock material can be replenished readily, *biofuel is considered to be a source of renewable energy, unlike fossil fuels such as petroleum, coal, and natural gas.*

Why We Need Biofuels?

- *The primary goal to biodiesel is to provide energy security and benefit the local communities.*
- There are six reasons why we need biofuels:

Easy to Use

- Biofuel can be stored, burned and pumped the same way as petroleum diesel fuel.
- It can also be used in blended or pure forms safely.
- The fuel economy will benefit from using biofuel as it is nearly identical to petroleum fuel and can be utilised all year round.

Provides energy security

- Energy security is the most constant supply that is available and affordable for consumers as well as the industry.
- Some of the many risks to energy security are disrupting the supply of fossil fuels, energy price hikes and limited sources of fuel.
- Many countries are currently attracted to the idea of using biofuels from local sources to be used as fuel alternatives.

Builds economic development

- Increasing the investment in biofuels will result in a boost of growth in the economy.

- This means that there will be more jobs and new sources of income for farmers in the industry.
- Developing countries will benefit from the economic growth in the demand for world energy.

Greenhouse Gas and Emission Reduction

- In the country, transportation accounts for more than a fifth of the total greenhouse gas emissions.
- With the appropriate method of production, **biofuel will produce a significant amount of greenhouse gas emission than is currently produced from fossil fuel.**
- This leads to the potential of addressing the important challenges we face today regarding fuel quality and emission.
- **Biofuel will reduce emissions of carcinogenic compounds as high as 85%.**

Energy Balance

*The energy balance of fuel is **the ratio of how much energy is required to produce, manufacture and distribute to compare to the amount of energy that is released when fuel is burned.***

- As energy security continues to grow as a topic in both society and government around the world, biofuel has a high energy balance compared to other fuel alternatives.
- Biofuel can help to improve energy security can help to improve energy balance through domestic energy crops.
- The plants are used to produce biofuel in replacement of imported crude oil.
- Biofuel will also add to the overall national capacity to reduce the need for import oil.

Recyclable and Biodegradable

- Biofuel is proven to be less toxic than diesel as its attributes makes it less likely to harm the environment and cost less damage.
- Biofuel is found to be less toxic than table salt as it is a natural, non-toxic vegetable oil.
- Biofuel is proven to be safer to handle than petroleum fuel due to its low volatility.
- With Biofuels, this helps to create multiple benefits to a thriving market.

Mains Question:

***'As energy security continues to grow as a point of concern in both societies around the world, biofuel has a high energy balance compared to other fuel alternatives.'* Discuss.**

GENERAL STUDIES- II

Topic- Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

SOPS FOR RESUMPTION OF FILM PRODUCTION

Context

Government are going to announce **'Standard Operating Procedures (SoPs)** to speed up resumption of film production in the unlock phase.

The Importance of Media & Entertainment sector

CHROME IAS ACADEMY

- Indian media industry, especially print, TV and digital remained **disproportionately dependent on advertising revenue**.
- **The Covid pandemic has proven that this arrangement is a major set back.**
- The M&E sector is an important part of the **creative economy**.
- It can create jobs and businesses and make India shine globally

What are the need?

- To **accelerate the restart of film-making** that had come to **a standstill as a result of COVID**.
- To work together to make progress and **harness the soft power of India** – media and entertainment.
- The Covid pandemic has forced people to think of new ways to communicate. Virtual gatherings have become the new normal, but the partnerships forged are real.
- **India enjoys a huge cost advantage in content creation and the Indian content is being watched in over 150 countries worldwide.**

Way forward

- India must identify 12-13 **sunrise sectors** in which it can leapfrog to become global champions to achieve sustainable high growth and create jobs.
- NITI Ayog has listed **Media & Entertainment industry as one of sunrise sectors**.
- **The incentives will be given** for production in all sectors, including TV serials, film-making, co-production, animation, gaming.

FOR PRELIMS

EXERCISE SLINEX-20

The **Eighth Edition of annual Indian Navy (IN) – Sri Lanka Navy (SLN) bilateral maritime exercise SLINEX-20** is scheduled off Trincomalee, Sri Lanka from 19 to 21 October 2020.

- **SLINEX-20 aims** to enhance inter-operability, improve mutual understanding and exchange best practices and procedures for multi-faceted maritime operations between both navies.
- **SLINEX series of exercise** exemplifies the deep engagement between India and Sri Lanka which has strengthened mutual cooperation in the maritime domain.
- The exercise is being conducted in a **non-contact 'at-sea-only' format** in the backdrop of COVID-19 pandemic.

Shanti Swarup Bhatnagar Prize for Science and Technology

Shanti Swarup Bhatnagar Prize for **Physical Sciences (2020)** category **Prof. Rajesh Ganapathy** from Jawaharlal Nehru Centre for Advanced Scientific Research, in collaboration with **Prof. Ajay Sood (IISC) and their graduate student Ms. Divya Ganapathi (IISC)**.

About the Award

- The award is **named after the founder Director of the Council of Scientific & Industrial Research (CSIR) India**, the late Dr (Sir) Shanti Swarup Bhatnagar.
- The purpose of the award is to recognise outstanding Indian work in science and technology.

Nature of the Prize

SSB Prizes, each of the value of Rs 5,00,000 (Rupees five lakh only), are awarded annually for notable and outstanding research, applied or fundamental, in the **following disciplines**:

1. Biological Sciences,
2. Chemical Sciences,
3. Earth, Atmosphere, Ocean and Planetary Sciences,
4. Engineering Sciences,
5. Mathematical Sciences,
6. Medical Sciences and
7. Physical Sciences.

Eligibility

- Any citizen of India engaged in research in any field of science and technology **up to the age of 45 years** as reckoned on 31st December of the year preceding the year of the Prize.
- **Overseas citizen of India (OCI) and Persons of Indian Origin (PIO)** working in India are also eligible.

PIB-OCTOBER 20th, 2020

GENERAL STUDIES-III

Topic – Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

AYUSHMAN SAHAKAR

Context

Union Minister of State for Agriculture launched Rs. 10,000 crore NCDC Ayushman Sahakar Fund for creation of healthcare infrastructure by cooperatives.

What is it?

AYUSHMAN SAHAKAR, a **unique scheme to assist cooperatives play an important role in creation of healthcare infrastructure in the country.**

The scheme is **formulated by the apex autonomous development finance institution, the National Cooperative Development Corporation (NCDC)** under the Ministry of Agriculture and Farmers Welfare.

What it will do?

- NCDC would extend **term loans to prospective cooperatives** to the tune of Rs.10,000 Crore in the coming years.
- NCDC's scheme will be **a step towards strengthening farmer's welfare activities** by the Central Government.

AYUSHMAN SAHAKAR scheme **would revolutionize the way healthcare delivery takes place in rural areas.**

Coverage

- NCDC's scheme **aligns itself with the focus of the National Health Policy, 2017.**
- **It will cover** the health systems in all their dimensions- investments in health, organization of healthcare services, access to technologies, development of human resources, encouragement of medical pluralism, affordable health care to farmers etc.
- It has a **comprehensive approach**-hospitals, healthcare, medical education, nursing education, paramedical education, health insurance and holistic health systems such as AYUSH.
- **Ayushman Sahakar scheme fund** would also assist cooperative hospitals take up medical / Ayush education.

National Cooperative Development Corporation (NCDC)

- NCDC was **set up under an Act of Parliament in 1963** for promotion and development of cooperatives.
- It works under the Ministry of Agriculture and Farmers Welfare.
- Since 1963, it has extended around Rs.1.60 lakh crore as loans to cooperatives.

Significance

The scheme provides working capital and margin money to meet operational requirements for healthcare services. The scheme provides interest subvention of one percent to women majority cooperatives.

Mains Question:

Discuss the key features of National Health Policy and its impact on rural areas in the country.

GENERAL STUDIES-III

Topic– *Changes in industrial policy and their effects on industrial growth.*

INTERNATIONAL FINANCIAL SERVICES CENTRES AUTHORITY (IFSCA)

Context

IFSCA introduces Framework for Regulatory Sandbox to tap into innovative FinTech solutions.

Highlights

- The International Financial Services Centres Authority (IFSCA), with an objective to develop a world class **FinTech hub** at the **IFSC located at GIFT City in Gandhinagar (Gujarat, India).**
- It endeavours to encourage the **promotion of financial technologies (FinTech)** initiatives in financial products and financial services across the spectrum of banking, insurance, securities and fund management.
- IFSCA has introduced a framework for **“Regulatory Sandbox”**.

What is the Regulatory Sandbox?

- Under this Sandbox framework, entities operating in the capital market, banking, insurance and financial services space shall be granted certain facilities and flexibilities to experiment with innovative FinTech solutions in a live environment with a limited set of real customers for a limited time frame.
- These features shall be fortified with necessary safeguards for investor protection and risk mitigation.
- The Regulatory Sandbox shall operate within the IFSC located at GIFT City.

What is the International Financial Services Centre (IFSC)?

IFSC is a jurisdiction that provides financial services to resident and non-resident Indians in foreign currencies.

- Gujarat International Finance Tec-City (GIFT City) is a business district promoted by the Gujarat government.
- GIFT City is India's first operational smart city and International Financial Services Centre (IFSC)
- GIFT is an operational smart city developed in the Gandhinagar metropolitan region as a Greenfield development.
- ***GIFT IFSC will be a deemed foreign territory dealing in foreign currency.***
- The units in IFSC will be recognised as non-resident entity under the FEMA regulations of Reserve Bank of India.
- ***The SEZ Act 2005 allows setting up an IFSC in an SEZ or as an SEZ after approval from the central government.***

What is the objective of setting up GIFT IFSC?

- The aim is to develop a world-class smart city that becomes a global financial hub with the development of an International Financial Services Centre.
- The government is also trying to bring back the financial services and transactions that are currently carried out in offshore financial centres by local corporate entities and overseas branches or subsidiaries of financial institutions (FIs) to India.

What are the services an IFSC can provide?

- Fund-raising services for individuals, corporations and governments
- Asset management and global portfolio diversification undertaken by pension funds, insurance companies and mutual funds
- Wealth management
- Global tax management and cross-border tax liability optimization, which provides a business opportunity for financial intermediaries, accountants and law firms.
- Global and regional corporate treasury management operations that involve fund-raising, liquidity investment and management and asset-liability matching
- Risk management operations such as insurance and reinsurance
- Merger and acquisition activities among trans-national corporations

What does an IFSC require?

IFSCs such as Dubai International Financial Centre and Shanghai International Financial Centre, which are located within SEZs, have six key building blocks:

- Rational legal regulatory framework
- Sustainable local economy

- Stable political environment
- Developed infrastructure
- Strategic location
- Good quality of life

Significance

- Over the last decade or so a significant market share in financial services related to India has moved to other international financial centres.
- Bringing this business to India is clearly beneficial in terms of economic activity and employment gains for India.
- Given the world class business environment and competitive tax regime at GIFT-IFSC, it is expected that trading of INR-USD contracts may bring volumes to India.
- This would also bring larger global participation in India through IFSC and connect India's IFSC globally.

Mains Questions:

Discuss the significance of international financial services centres.

GENERAL STUDIES-III

Topic– changes in industrial policy and their effects on industrial growth.

INR – USD FUTURES

Context

Union Minister for Finance & Corporate Affairs launched INR-USD Futures and Options contracts on the two International Exchanges.

About

India's first international exchange, India INX is all set to launch INR-USD futures and options contracts.

- This will help the Reserve Bank of India (RBI) in curbing the influence of foreign trade centers like Dubai and Singapore in the Rupee derivatives trade.
- It was recommended by the Dr. Usha Thorat Committee in 2019.

Why is this important?

- Allowing INR-USD contracts in IFSC allows the RBI to reduce foreign influence on the Indian rupee.
- **It will reduce arbitrage opportunity between Indian and foreign centers will reduce volatility**
- To an average Indian, reduced volatility in the Indian rupee will reduce the risk of inflation.

What are futures and options contracts?

- Futures contracts are agreements to buy or sell underlying stocks at a future date. Essentially a future contract is a promise to buy or sell the asset at a future date.
- The amount to be paid will be decided one the market prices on the date of expiry of the contract.

Options contracts are of two types call and put.

Call options: give the buyer the right to purchase a stock at a set price during the life of the contract. They are bought when the buyer expects the stock price to increase in the future.

Put options: give the buyer the right to sell a stock at a set price during the life of the contract. They are bought when the buyer expects the stock price to decrease in the future.

How do currency futures and options contracts work?

- When it comes to currency contracts, buyers and sellers exchange one currency for the other.
- If one wants to buy USD and have INR, he would need to find a seller who wants to sell USD in exchange for INR.
- e.g. if you enter into a INR-USD futures contract to buy \$100 at ₹75 per dollar on May 20, you will have to pay ₹7,500 and take delivery of \$100, regardless of the exchange rate prevailing on May 20.
- Now, in currency futures and options, there is an element of speculation.
- This gives rise to the futures and options values increasing and decreasing based on the demand and supply.

Who regulates this segment?

It is regulated by SEBI along with RBI.

FOR PRELIMS

MALABAR 2020 NAVAL EXERCISE

The Malabar series of Naval exercises started in 1992 as a bilateral Indian Navy-US Navy exercise.

- Japan joined the Naval exercise in 2015.
- This annual exercise has been conducted off the coast of Guam in the Philippine Sea in 2018, off the coast of Japan in 2019.
- It is expected to be held in the Bay of Bengal and the Arabian Sea later this year.
- In the light of increased defence cooperation with Australia, Malabar 2020 will see the participation of the Australian Navy.
- This year, the exercise has been planned on a 'non-contact – at sea' format.
- They collectively support free, open and inclusive Indo-Pacific and remain committed to a rules based international order.

Frontier Technologies Cloud Innovation Center (CIC)

NITI Aayog has announced the establishment of a Frontier Technologies Cloud Innovation Center (CIC) with Amazon Web Services (AWS)—the first of its kind in India.

- It aims to address societal challenges through digital innovation.
- This CIC is part of the AWS CIC Global Program.
- The program provides an opportunity for government agencies, non-profits, and educational institutions, to come together on pressing challenges, apply design thinking, test new ideas, and access the technology expertise of AWS.

GENERAL STUDIES-II

Topic- *Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.*

NATIONAL AYUSH MISSION (NAM)

Context

High – Level review by AYUSH Ministry of National AYUSH Mission (NAM) activities of States and UTs against the backdrop of Covid-19.

About the National AYUSH Mission

- **Centrally Sponsored Scheme** of National AYUSH Mission (NAM) is a flagship scheme of Ministry of AYUSH.
- It was launched by department of AYUSH, during 12th Plan for implementing through States/UTs.

The basic objective of NAM:

- To promote AYUSH medical systems through cost effective AYUSH services,
- Strengthening of educational systems,
- Facilitate the enforcement of quality control of Ayurveda, Siddha and Unani & Homoeopathy (ASU &H) drugs, and
- Sustainable availability of ASU & H raw-materials.

Key components

- AYUSH Services
- AYUSH Educational Institutions
- Quality Control of ASU &H Drugs
- Medicinal Plants

AYUSH Health & Wellness Centers (HWCs)

HWCs operating under NAM have the following objectives

- To establish a holistic wellness model based on AYUSH principles and practices.
- Focus on preventive, curative, rehabilitative and palliative healthcare by integration with the existing public health care system.
- To provide informed choice to the public in need, by making the AYUSH services available.
- To spread community awareness about lifestyle, yoga, medicinal plants and provision of medicines for selected conditions as per strength of AYUSH systems.

Expected Outcomes

- Improvement in AYUSH education through enhanced number of AYUSH Educational Institutions upgraded.
- Better access to AYUSH services through increased number of AYUSH Hospital and Dispensaries coverage, availability of drugs and manpower.
- Sustained availability of quality raw-materials for AYUSH Systems of Medicine.

- Improved availability of quality ASU & drugs through increase in the number of quality Pharmacies and Drug Laboratories and enforcement mechanism of ASU & drugs.

Mains Question:

AYUSH mission, represent a pluralistic and integrative scheme of health services. How the AYUSH can play an important role in providing quality healthcare and medical care in the country?

GENERAL STUDIES-II

Topic- *Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.*

NATIONAL DEWORMING DAY

Context

Evidence-based Impact of National Deworming Day in India. 14 States reported reduction in worm prevalence; 9 show substantial reduction.

Highlights

The **National Deworming Day** is an initiative of **Ministry of Health and Family Welfare**, Government of India to make every child in the country worm free.

- This is one of the largest public health programs reaching large number of children during a short period.
- The National Deworming Day (NDD) was **launched in 2015**.
- It is **implemented as a biannual single day programme** implemented through the platforms of schools and anganwadis.
- **Albendazole tablet**, approved by World Health Organization (WHO), is used for treatment of intestinal worms in children and adolescents as part of Mass Drug Administration (MDA) programmes globally.

About Soil-Transmitted Helminths (STH)

- **Helminths (worms)** which are transmitted through soil contaminated with faecal matter are called soil-transmitted helminths (Intestinal parasitic worms).
- **Roundworm (Ascaris lumbricoides), whipworm (Trichuris trichiura) and hookworms (Necator americanus and Ancylostoma duodenale)** are worms that infect people.
- According to the WHO, More than **836 million children are at risk of parasitic worm infections worldwide**.
- **241 million children between the ages of 1 and 14 years are at risk of parasitic intestinal worms in India**, also known as Soil-Transmitted Helminths (STH).

STH transmission

Adult worms live in human intestines for food and survival and produce thousands of eggs each day.

- Eggs are passed in the faeces of infected person.
- Infected people who defecate outdoors spread worm eggs in the soil.
Eggs contaminate the soil and spread infection in several ways: –
- Ingested through vegetables that are not carefully cooked, washed or peeled;

- ingested from contaminated water sources;
- ingested by children who play in soil and then put their hands in their mouths without washing them.
- STH infections can lead to anemia, malnutrition, impaired mental and physical & cognitive development, and reduced school participation.

STH Infections can be prevented by:

- Using sanitary toilets, not defecating outside
- Hand-washing, particularly before eating and after using toilets
- Wearing slippers and shoes
- Washing fruits and vegetables in safe and clean water
- Eating properly cooked food

Objective of National Deworming Day

To deworm all preschool and school-age children (enrolled and non-enrolled) between the ages of 1-19 years through the platform of schools and Anganwadi Centers in order to improve their overall health, nutritional status, access to education and quality of life.

Significance of NDD

Anganwadi and school-based mass deworming program is safe, cost-effective, and can reach crores of children quickly.

- Deworming has been shown to reduce absenteeism in schools; improve health, nutritional, and learning outcomes; and increase the likelihood of higher-wage jobs later in life.
- Deworming with the safe and beneficial Albendazole tablet is an evidence-based, globally-accepted, and effective solution to controlling worm infections.
- National Deworming Day has, thus, been designed to reach all children, regardless of socio-economic background.

Mains Question:

Discuss the significance of program such as National Deworming Day for providing a good and accessible health care among the children across the country.

GENERAL STUDIES-III

Topic – Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

GI TAGS TO NEW PRODUCTS

Context

Recently, GI tag has been given to **Black rice of Manipur, Gorakhpur Terracotta and Kadalai Mittai of Kovilpatti.**

Black rice of Manipur

- Black rice of Manipur is also called the Chak-Hao.
- Black rice variety has a deep black colour and is higher by weight than that of other varieties like brown rice, etc.

- The deep black colour is mainly due to the anthocyanin agent.
- It is scented glutinous (sticky) rice which has been in cultivation in Manipur over centuries, and is characterised by its special aroma.
- Chak-Hao has also been used by traditional medical practitioners as part of traditional medicine.

Kovilpatti Kadalai Mittai

- It is a pea nut candy made in southern parts of Tamil Nadu.
- The candy is prepared from ground nut and jaggery.
- The water is exclusively used from the river Thamirabarani.
- Gorakhpur Terracotta: The potters of the town make animal figures like elephants, horses.

Gorakhpur Terracotta

- Gorakhpur Terracotta is a centuries-old traditional art form.
- The entire work is done with bare hands. The potters of the town make animal figures like elephants, horses.
- The clay used in the terracotta products is 'Kabis' clay which is found in the ponds of Aurangabad, Bharwalia and Budhadih village areas.
- The potters do not use any colour, they only dip the clay structure in a mixture of soda and mango tree barks, and bake it.

What is a Geographical Indication (GI tag)?

- A geographical indication (GI) is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- In order to function as a GI, a sign must identify a product as originating in a given place.
- The GI tag is exclusive and a similar item originating from a different location is not allowed to use it.

Benefits of registration of geographical indications

- It confers legal protection to Geographical Indications in India
- Prevents unauthorised use of a Registered Geographical Indication by others
- It provides legal protection to Indian Geographical Indications which in turn boost exports.
- It promotes economic prosperity of producers of goods produced in a geographical territory.

Legal provisions

- *GI is covered as element of intellectual property rights (IPRs) under Paris Convention for Protection of Industrial Property.*
- At international level, GI is governed by WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).
- In India, *Geographical Indications of Goods (Registration and Protection Act), 1999* governs it.

FOR PRELIMS

MULTI-MODAL LOGISTIC PARK

Union Minister for Road Transport, Highways laid the foundation stone for country's first Multi-modal Logistic Park at Jogighopa in Assam.

Highlights

- The first-ever multi-modal logistic park will be built at Jogighopa in Assam.
- The Multi-modal Logistic Park will provide direct air, road, rail and waterways connectivity to the people.
- It will be developed under the ambitious Bharatmala Pariyojana of the Government of India.

PIB-OCTOBER 22nd, 2020

GENERAL STUDIES-III

Topic– *Salient features of the Representation of People's Act and other related issues.*

EXPENDITURE LIMITS IN ELECTIONS

Context

Election Commission of India (ECI) constitutes committee to examine issues concerning expenditure limits.

Highlights

- Election Commission has constituted a committee **to examine the issues concerning expenditure limit for a candidate in view of increase in number of electors and rise in Cost Inflation Index and other factors.**
- Considering the factor of COVID-19, the Ministry of Law & Justice has notified **an amendment in Rule 90 of Conduct of Elections Rules, 1961** enhancing the **existing expenditure limit by 10%.**
- This increase of 10% will be applicable with immediate effect in ongoing elections.
- **Expenditure limit for a candidate was last revised in 2014**, while in respect of Andhra Pradesh and Telangana it was revised in 2018.
- In last **6 years the limit was not increased despite increase in electorate from 834 million to 910 million in 2019 to 921 million now.**
- Further, Cost Inflation Index during this period has increased from 220 to 280 in 2019 to 301 now.

The committee will have following terms of reference

- To assess the **change in number of electors across the States/Union Territories** and its bearing on expenditure.
- To assess the **change in Cost Inflation Index** and its bearing on the pattern of expenditure incurred by the candidates in recent elections.
- To seek **views/inputs of the political parties and other stakeholders.**
- To **examine other factors** which may have bearings on expenditure.
- To examine any other related issue.

The Committee will **submit its report within 120 days of its constitution.**

Need for ceiling on Election expenditures

- Limits on campaign expenditure are meant **to provide a level-playing field for everyone contesting elections.**
- It ensures that a candidate can't win only because she is rich.
- The 255th Report of the Law Commission on electoral reforms argued that unregulated or under-regulated election financing could lead to 'lobbying and capture, where a sort of quid pro quo transpires between big donors and political parties/candidates'.

Mains Question:

Limits on campaign expenditure ensures that a candidate can't win only because she is rich. Discuss.

GENERAL STUDIES-I

Topic– Post-independence consolidation and reorganization within the country.

MEMORIES OF 22nd OCTOBER 1947

Context

A National Symposium and Exhibition on **"Memories of 22 October 1947"** to be organised at Srinagar by National Museum Institute of History of Art, Conservation and Museology.

22 October 1947 in History

22 October 1947 has marked Indian history with evidences of betrayal and a legacy of valour.

- On **15th August 1947, India attained Independence** after being subjugated to the colonial regime for almost two hundred years.
- At its birth as a young independent nation in 1947, one of the **most protuberant difficulties India was forced to face was the choice given to the erstwhile Maharajas of India to be an independent country, or to a part of India or to be a part of Pakistan.**

Operation Gulmarg

On 22 October, 1947 Pakistan invaded Kashmir.

The invasion, '**Operation Gulmarg**' was result of months of planning and involvement of the topmost leaders of Pakistan including Pakistan's then Prime Minister, Chief Minister of the North West Frontier, Members of Muslim League and Pakistan Army.

- The **Tribal Militia invasion of Kashmir backed by Pakistan army on 22 Oct 1947** unleashed a brutal series of plunder, rape, arson, looting and killing.
- The invasion marks the **beginning of First Indo-Pak war** and set in motion a chain of events that are still affecting the country.

Accession of Jammu and Kashmir

On 26 Oct 1947 the State of Jammu and Kashmir formally acceded to India and on 27 Oct 1947 Indian troops were airlifted to Kashmir.

- From 22 Oct 1947 onwards till the intervention of the Indian Defense Forces all days in Kashmir were blackened with the horrifying stories of mass plunder and vandalism where many lives were lost to the insatiable ambition of the invading Tribal Militia.
- During this need of hour many willing individuals rose up to the occasion and faced adversity with commendable will and bravery.

Exhibition on 'Memories of 22 October 1947'

- The evidences of the **treacherous attack by Pakistan**, **stories of resistance and bravery of Kashmiris**, **narrative of Indian Army victory over the invaders** need to be told to people.
- The **two-day National Symposium** and the Exhibition commencing on 22 Oct 2020 is an attempt to deliberate upon the records and history of this deceitful attack and subsequent victory of India.

Mains Question:

Critically examine the cause and consequences of first war with Pakistan.

GENERAL STUDIES-III

Topic– Major crops-cropping patterns in various parts of the country, – different types of irrigation and irrigation systems storage.

PRADHAN MANTRI KRISHI SINCHAYEE YOJANA

Context

Jal Shakti ministry launched a Mobile application for Geo tagging of the components of projects under Pradhan Mantri Krishi Sinchayee Yojana- Accelerated Irrigation Benefits Programme (PMKSY-AIBP) under Ministry of Jal Shakti.

About PMKSY

PMKSY is a **Centrally Sponsored Scheme (Core Scheme)** launched in 2015.

The overreaching vision of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) is:

- To ensure access to some means of protective irrigation to all agricultural farms in the country,
- To produce 'per drop more crop', thus bringing much desired rural prosperity.

PMKSY has been conceived amalgamating ongoing schemes viz.

- Accelerated Irrigation Benefit Programme (AIBP) of the Ministry of Water Resources,
- River Development & Ganga Rejuvenation (MoWR, RD&GR),
- Integrated Watershed Management Programme (IWMP) of Department of Land Resources (DoLR) and
- On Farm Water Management (OFWM) of Department of Agriculture and Cooperation (DAC).

Implementation

- The scheme will be implemented by **Ministries of Agriculture, Water Resources and Rural Development.**
- **Ministry of Rural Development is to mainly undertake** rain water conservation, construction of farm pond, water harvesting structures, small check dams and contour bunding etc.
- **MoWR, RD & GR, is to undertake** various measures for creation of assured irrigation source, construction of diversion canals, field channels, water diversion/lift irrigation, including development of water distribution systems.

Ministry of Agriculture will promote efficient water conveyance and precision water application devices like:

1. *drips, sprinklers, pivots, rain-guns in the farm “(Jal Sinchan)”*,
2. *construction of micro-irrigation structures to supplement source creation activities*,
3. *Extension activities for promotion of scientific moisture conservation and agronomic measures.*

Objectives

The broad objectives of PMKSY include

- Achieve convergence of investments in irrigation at the field level (preparation of district level and, if required, sub district level water use plans).
- Enhance the physical access of water on the farm and expand cultivable area under assured irrigation (**Har Khet ko pani**).
- Enhance the adoption of precision – irrigation and other water saving technologies (More crop per drop).
- Ensure the integrated development of rainfed areas using the watershed approach towards soil and water conservation, regeneration of ground water, arresting runoff, providing livelihood options and other NRM activities.

Programme Components

PMKSY has the following programme components:

Accelerated Irrigation Benefit Programme (AIBP)

To focus on faster completion of ongoing Major and Medium Irrigation including National Projects.

PMKSY (Har Khet ko Pani)

- *Creation of new water sources* through Minor Irrigation (both surface and ground water)
- *Repair, restoration and renovation of water bodies*; strengthening carrying capacity of traditional water sources, construction rain water harvesting structures (**Jal Sanchay**);
- *Command area development*, strengthening and creation of distribution network from source to the farm;
- *Ground water development* in the areas where it is abundant, so that sink is created to store runoff/ flood water during peak rainy season.

Creating and rejuvenating traditional water storage systems like

- *Jal Mandir (Gujarat);*
- *Khatri, Kuhl (H.P.);*
- *Zabo (Nagaland);*
- *Eri, Ooranis (T.N.);*
- *Dongs (Assam);*
- *Katas, Bandhas (Odisha and M.P.) etc. at feasible locations.*

PMKSY (Per Drop More Crop)

- **Department of Agriculture Cooperation & Farmers' Welfare is implementing 'Per Drop More Crop' component of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY- PDMC).**

- **The PMKSY- PDMC focuses on** enhancing water use efficiency at farm level through Micro Irrigation technologies viz. Drip and Sprinkler irrigation systems.
- Drip micro irrigation technique not only helps in water saving but also in reducing fertilizer usage, labour expenses and other input costs.

Key features of 'Per Drop More Crop'

- **Construction of micro irrigation structures** to supplement source creation activities including tube wells and dug wells.
- **Secondary storage structures** at tail end of canal system to store water when available in abundance (rainy season) or from perennial sources like streams for use during dry periods through effective on – farm water management;
- **Water lifting devices** like diesel/ electric/ solar pumpsets including water carriage pipes, underground piping system.
- **Extension activities** for promotion of scientific moisture conservation and agronomic measures including cropping alignment *to maximise use of available water including rainfall and minimise irrigation requirement (Jal sarankchan)*;
- Capacity building, training and awareness campaign and management practices including community irrigation.

PMKSY (Watershed Development)

- Effective management of runoff water and improved soil & moisture conservation activities such as *ridge area treatment, drainage line 5 treatment, rain water harvesting, in – situ moisture conservation and other allied activities on watershed basis.*
- Converging with MGNREGS for creation of water source to full potential in identified backward rainfed blocks including renovation of traditional water bodies.

FOR PRELIMS

INS KAVARATTI

Indigenously built ASW Corvette 'Kavaratti' to be Commissioned at Visakhapatnam.

Highlights

The last of four indigenously built **Anti-Submarine Warfare (ASW) stealth corvettes "INS Kavaratti"** under **Project 28 (Kamorta class)** is scheduled to be commissioned into the Indian Navy.

- A potent Stealth ASW Corvette, Kavaratti is **indigenously designed by the Indian Navy's in-house organisation, Directorate of Naval Design (DND).**
- It is built by **Garden Reach Shipbuilders & Engineers (GRSE), Kolkata.**
- Kavaratti has a state-of-the-art weapons and sensor suite capable of **detecting and prosecuting submarines.**
- The ship also has a credible self defence capability and good endurance for long-range deployments.
- **Kavaratti takes her name from erstwhile INS Kavaratti which was an Arnala class missile corvette.**
- The older Kavaratti distinguished herself by operating in support of was **Bangladesh's liberation in 1971.**

GENERAL STUDIES- II

Topic: *Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.*

REGIONAL RAW DRUG REPOSITORY (RRDR)

Context

Inauguration of Regional Raw Drug Repository of National Medicinal Plants Board at All India Institute of Ayurveda (All India Institute of Ayurveda), New Delhi.

Highlights

- A **Regional Raw Drug Repository (RRDR)** was inaugurated at **All India Institute of Ayurveda (All India Institute of Ayurveda)**.
- This RRDR is the second in the series of repositories proposed by National Medicinal Plants Board (NMPB), Ministry of AYUSH and will be dedicated to the Trans-Ganga Plain Region.

Need for

There is an increased demand for the natural healing and herbal products across the globe.

- COVID has further pushed the demand and many of the key herbs like **Asvagandha, Giloi, Tulsi, Kalmegh, Mulethi** are on high demand.
- **With the increasing demand for the herbal medicines**, the NMPB is already engaged in the development of a mechanism to ensure supply of quality raw material to the AYUSH industry as well as consumers.
- In order to document the diversity in the genetics and chemistry of medicinal plants, **eight RRDR and one NRDR have been proposed by Ministry of AYUSH.**

What is the Regional Raw Drug Repository (RRDR)?

- Regional Raw Drug Repository (RRDR) are **important components of the Centrally Sponsored Scheme of National AYUSH Mission**, which plays an **important role in medicinal plants cultivation.**
- This RRDR would play a **stellar role in collection, documentation, and authentication of raw drugs collected from the agro-climatic region, that is, the Southern Plateau Region.**
- This RRDR will act as an **accredited reference library for authentication of raw drugs and establish standard protocols** and keys for authentication of raw drug used in the herbal industries.

National Medicinal Plants Board (NMPB)

In order to promote medicinal plants sector, Government of India set up **National Medicinal Plants Board (NMPB) on 24th November 2000.**

- Currently the board is **working under the Ministry of AYUSH** (Ayurveda, Yoga & Naturopathy, Unani, Siddha & Homoeopathy), Government of India.
- **The primary mandate of NMPB:** is to develop an appropriate mechanism for coordination between various stakeholders and implementation of support policies/programs for overall (conservation, cultivation, trade and export) growth of medicinal plants sector both at the Central /State and International level.

Medicinal Plants in India

India is one of the richest countries in the world in terms of biodiversity, has **15 agro-climatic zones**.

- Out of the 17000-18000 species of flowering plants, **more than 7000 are estimated to have medicinal usage in folk and documented systems of medicine** like Ayurveda, Unani, Siddha & Homoeopathy (AYUSH System of Medicine).
- Medicinal plants are not only a **major resource base for the traditional medicine & herbal industry** but also provide livelihood and health security to a large segment of Indian population.
- About 1178 species of medicinal plants are estimated to be in trade of which 242 species have annual consumption levels in excess of 100 metric tons/year.

Mains Question:

Critically discuss the role of the herbal medicines in Universal healthcare system.

GENERAL STUDIES- II

Topic- Statutory, regulatory and various quasi-judicial bodies.

INTERNATIONAL FINANCIAL SERVICES CENTRES AUTHORITY (IFSCA)

Context

IFSCA Committee submits second interim report on development of international retail business – Finserv from India.

Highlights

The **International Financial Services Centres Authority (IFSCA) Expert Committee** on international retail business development in the IFSC has submitted its second interim report to the Chairperson of the IFSCA.

- This interim report covers a number of suggestions aimed at swift and efficient development of international retail businesses in the IFSC.
- It focuses on recommendations for international insurance activity to flourish in the IFSC.

Major recommendations of the report

The main recommendations of this interim report **deal with making the GIFT IFSC an attractive destination for Life, Health and Non-Life Insurance companies.**

- Permit Non-resident Indians (NRIs)/ Persons of Indian Origin (PIOs) **to buy Life Insurance policies for themselves as well as their family members who are based in India and abroad** from companies set up in the IFSC.
- Allow them to pay premium in **the currency of their choice** (including Indian rupees).
- Permit NRIs/PIOs to buy **portable life insurance policies which offers them flexibility to pay premium in INR or in foreign currency**, based on their choice, after they return to India.
- Allow insurance companies to offer health insurance products to NRIs/PIOs including covering their family members who are based in India.

- IFSC should emerge as Reinsurance Hub for Asia and Africa with more reinsurers encouraged to set up base in IFSC. IFSC can also emerge as Aviation insurance Hub for the world.
- Insurers be allowed to set up subsidiaries in IFSC to promote business.
- Foreign reinsurance brokers be encouraged to set up base in IFSC to create a vibrant insurance market.

Significance

The Committee believes that the IFSC can become an engine of economic growth for India.

- The **global opportunity for Insurance sector is immense**.
- The **Indian insurance sector is underperforming** compared to that of developed and emerging economies.
- Insurance penetration and density, which are the key performance indicators of the insurance industry, are especially low in India.
- GIFT IFSC promises to offer a cost-effective and tax-efficient jurisdiction for insurance companies to set up operations there.

International Financial Services Centres Authority (IFSCA)

IFSCA was established by central government to regulate all financial services in International Financial Services Centres (IFSCs) with headquarters in Gandhinagar (Gujarat).

Functions

The IFSCA regulates **financial products such as securities, deposits or contracts of insurance, financial services, and financial institutions set up in an IFSC.**

- These **functions previously performed by** any appropriate regulator such as Reserve Bank of India (RBI), the Securities and Exchange Board of India (SEBI) etc.
- It also regulate any other financial products, financial services, or financial institutions in an IFSC, which may be **notified by the central government**.
- It may **also recommend to the central government** any other financial products, financial services, or financial institutions, which may be permitted in an IFSC.

Composition

The International Financial Services Centers Authority (IFSCA) **will consist of nine members, appointed by the central government.**

- They will include **chairperson** of the authority, a member each from the **RBI, SEBI**, the Insurance Regulatory and Development Authority of India (**IRDAI**), and the Pension Fund Regulatory and Development Authority (**PFRDA**); and two members from the **Ministry of Finance**.
- Two other members will be **appointed on the recommendation of a Selection Committee**.
- All members of the IFSC Authority will have a **term of three years**, subject to reappointment.

Mains Question:

'The Indian insurance sector is underperforming compared to that of developed and emerging economies. Discuss.'

GENERAL STUDIES- II

Topic— Development processes and the development industry —the role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders.

THE SARAS COLLECTION

Context

Rural Development and Panchayati Raj Ministry launched “The Saras Collection” on the Government e-Marketplace (GeM) portal.

What is it?

‘The Saras Collection’ is a unique initiative of GeM and the Deen Dayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM), Ministry of Rural Development.

- The Saras Collection showcases daily utility products made by rural self-help groups (SHGs).
- It aims to provide SHGs in rural areas with market access to Central and State Government buyers.

Key features

Under this initiative, the SHG sellers will be able to list their products in 5 product categories, namely:

1. handicrafts,
2. handloom and textiles,
3. office accessories,
4. grocery and pantry, and
5. Personal care and hygiene.

What will Government e-Marketplace (GeM) do?

- GeM will provide dashboards for functionaries at the national, state, district and block level.
- It will provide them real time information about the number of products uploaded by SHGs, and value and volume of orders received and fulfilled.
- Potential buyers shall be able to search, view, cart and procure such products through the stipulated modes of procurement.

Benefits of Saras Collection

- The Saras Collection will provide SHGs direct access to Government buyers.
- It will do away with intermediaries in the supply chain, thus ensuring better prices for SHGs and spurring employment opportunities at the local level.

Deen Dayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM)

- DAY-NRLM was launched by the Ministry of Rural Development (MoRD), **in June 2011 as a restructured version of Swarna Jayanti Gram Swarozgar Yojna (SGSY).**
- In November 2015, the program was renamed Deendayal Antayodaya Yojana (DAY-NRLM).

CHROME IAS ACADEMY

- **DAY-NLRM aims to reduce poverty through promotion of diversified and gainful self-employment while creating skilled wage employment opportunities.**
- The scheme supports building social capital and ensuring financial linkages to alleviate poverty and enhance the quality of the life of rural poor women.

Government e Marketplace (GeM)

- GeM is a state-of-the-art national public procurement platform of Ministry of Commerce and Industries.
- GeM aims to enhance transparency, efficiency and speed in public procurement.
- GeM is a 100 percent Government owned Section 8 Company set up as the National Public Procurement Portal for procurement of goods and services required by Central and State Government organizations.
- GeM provides an online, end to end solution for procurement of goods and services for all Central Government and State Government Ministries, Departments, Public Sector Enterprises (PSEs), local bodies and autonomous organisations.

FOR PRELIMS

KISAN SURYODAYA YOJANA

PM to inaugurate three key projects in Gujarat including Kisan Suryodaya Yojana.

Highlights

Prime Minister will inaugurate three key projects in Gujarat on 24th October.

- **'Kisan Suryodaya Yojana'** for the farmers of Gujarat.
- The **Paediatric Heart Hospital** attached with U.N Mehta Institute of Cardiology and Research Centre **and a Mobile Application** for tele-cardiology at the Ahmedabad Civil Hospital in Ahmedabad.
- He will also inaugurate the **Ropeway at Girnar** on the occasion.

About Kisan Suryodaya Yojana

- To provide **day-time power supply for irrigation**, the Gujarat Government had recently announced the **'Kisan Suryodaya Yojana'**.
- Under this scheme, **farmers will be able to avail power supply from 5 AM to 9 PM.**

Paediatric Heart Hospital attached with the U.N Mehta Institute of Cardiology and Research

- **U.N Mehta Institute will now become India's biggest hospital for cardiology** in addition to being one of the select few hospitals in the world with a world-class medical infrastructure and medical facilities.
- Institute will also become **the biggest single super speciality cardiac teaching institute in the country** and one of the **biggest single super speciality cardiac hospitals in the world.**

Girnar Ropeway

- Gujarat will be highlighted on the global tourism map after the start of the Ropeway at Girnar.
- **A distance of 2.3 kms** will now be covered in just 7.5 minutes through the ropeway.

CHROME IAS ACADEMY

- In addition to this, the ropeway will also provide a scenic view of the lush green beauty surrounding the Girnar mountain.

Person in News: CSIR-CDRI Scientist Dr Saman Habib

Context

CSIR-CDRI Scientist Dr Saman Habib elected as fellow of Indian National Science Academy, New Delhi.

Dr Habib bagged fellowship of all three premier Science Academies of India.

The Indian National Science Academy

The Indian National Science Academy was **established in January 1935** with the object of promoting science in India and harnessing scientific knowledge for the cause of humanity and national welfare.

The major objectives of Indian National Science Academy are:

- **Coordination** among Scientific Academies, Societies, Institutions, Government Scientific Departments and Services.
- **To act as a body of scientists of eminence** for the promotion and safeguarding of the interests of scientists in India and to present internationally the scientific work done in the country.
- **To act through properly constituted National Committees**, in which other learned academies and societies may be associated, for undertaking scientific work of national and international importance which the Academy may be called upon to perform by the public and by the Government.

PIB-OCTOBER 24th, 2020

GENERAL STUDIES-II

Topic- *Government policies and interventions for development in various sectors and issues arising out of their design and implementation.*

EMPLOYEES' STATE INSURANCE SCHEME

Context

In its continuous endeavor to cover more workers under ESI Scheme, Govt. of India has now extended the Employees' State Insurance (ESI) Scheme for the first time to Arunachal Pradesh.

Highlights

- All factories located in the district of Papum Pare of Arunachal Pradesh **employing 10 or more persons shall become eligible for coverage under ESI Act 1948.**
- The employees working in these factories, **earning wages up to Rs. 21,000/- per month (Rs. 25 thousand per month for persons with disability)** shall be eligible for coverage under the ESI Scheme.
- The **covered employees and their dependants** shall become eligible for host of benefits including Cashless Medical Care Services etc.

ESI Scheme in India

- The Employees' State Insurance Scheme is an integrated measure of Social Insurance embodied in the **Employees' State Insurance Act**,
- It is designed to accomplish the task of protecting '**employees' as defined in the Employees' State Insurance Act, 1948** against the impact of incidences of sickness, maternity, disablement and death due to employment injury and to provide medical care to insured persons and their families.

Purview of the scheme

The ESI Scheme applies to factories and other establishment's viz. Road Transport, Hotels, Restaurants, Cinemas, Newspaper, Shops, and Educational/Medical Institutions **wherein 10 or more persons are employed**.

- However, **in some States threshold limit for coverage of establishments is still 20**.
- Employees of the aforesaid categories of factories and establishments, **drawing wages upto Rs.15,000/- a month, are entitled to social security cover under the ESI Act**.
- ESI Corporation **has also decided to enhance wage ceiling for coverage of employees under the ESI Act from Rs.15,000/- to Rs.21,000/-**.
- ESI Corporation has extended the benefits of the ESI Scheme **to the workers deployed on the construction sites located in the implemented areas under ESI Scheme** since August, 2015.

Contributions under the ESI Scheme

The ESI Scheme is **financed by contributions from employers and employees**.

- The rate of **contribution by employer is 4.75% of the wages payable to employees**.
- The **employees' contribution is at the rate of 1.75% of the wages payable to an employee**.
- Employees, earning less than Rs. 137/- a day as daily wages, are exempted from payment of their share of contribution.

When and how ESIC started?

- ESIC scheme was inaugurated in Kanpur on **24th February 1952 (ESIC Day)** by then Prime Minister Pandit Jawahar Lal Nehru.
- The promulgation of **Employees' State Insurance Act, 1948 (ESI Act)**, by the Parliament was the **first major legislation on social Security for workers** in independent India.

Mains Question:

Critically comment on the recent move of the government to extend the Employees' State Insurance Scheme for domestic workers.

GENERAL STUDIES- II

Topic- *Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes constituted for the protection and betterment of these vulnerable sections.*

NEW PENSION SCHEMES FOR UNORGANISED SECTOR

Context

Government of India has recently introduced two voluntary and contributory Pension Schemes.

About

Government of India has introduced two voluntary and contributory Pension Schemes,

1. **Pradhan Mantri Shram Yogi Maan-dhan Yojna (PM-SYM)**, a pension scheme for the Unorganised Workers
2. **National Pension Scheme for the Traders and Self Employed Persons (NPS-Traders)**

Highlights

- These pension schemes are introduced under the **Unorganised Workers Social Security Act, 2008** to provide old age protection to
- The schemes envisage for providing minimum assured **monthly pension of Rs. 3000/- after attaining the age of 60 years.**
- If the subscriber dies, **the spouse of the beneficiary shall be entitled to receive 50% of the pension** as family
- **Family pension is applicable only to spouse.**
- The monthly contribution ranges from Rs.55-Rs.200/- depending upon the entry age of the beneficiary.

Pradhan Mantri Shram Yogi Maan-dhan Yojna (PM-SYM)

- **PM-SYM is meant for** old age protection and social security of Unorganized Workers (UW).
- who are mostly engaged as *rickshaw pullers, street vendor, mid-day meal workers, head loaders, brick kiln workers, cobblers, rag pickers, domestic workers, washermen, home-based, agricultural workers, construction workers, beedi workers, handloom workers, leather workers, audio-visual workers* or in similar other
- There are estimated **42 crore such unorganised workers** in the country.
- **The entry age for the beneficiary is 18-40 years** and **he/she should not be a member of ESIC/EPFO or an income tax payer.**

National Pension Scheme for the Traders and Self Employed Persons (NPS-Traders)

- The NPS-Traders scheme is meant for old age protection and social security of Vyapaaris (retail traders/ shopkeepers and self-employed persons) .
- The eligibility for the benefits of this scheme is **annual turnover should not be exceeding 1.5 Crore.**
- *These retail traders / petty shopkeepers and self-employed persons are mostly working as shop owners, retail traders, rice mill owners, oil mill owners, workshop owners, commission agents, brokers of real estate, owners of small hotels, restaurants and other*
- **The entry age for the scheme is 18-40 years and the Vyapaari should not be a member of ESIC/EPFO/PM-SYM or an income tax payer.**

Topic- Science and Technology- developments and their applications and effects in everyday life.

ARTIFICIAL INTELLIGENCE (AI)

Context

An Artificial Intelligence (AI) powered learning ecosystem that will assist the banking, financial services and insurance (BFSI) sector: Commerce and Industry & Railways Minister

What is Artificial intelligence (AI)?

Artificial intelligence (AI) is ***the simulation of human intelligence processes by machines, especially computer systems.***

- Specific applications of AI include expert systems, natural language processing (NLP), speech recognition and machine vision.
- ***The term was coined in 1956 by John McCarthy*** at the Dartmouth conference, Massachusetts Institute of Technology.

AI programming focuses on three cognitive skills: learning, reasoning and self-correction.

Learning processes

- This aspect of AI programming focuses on ***acquiring data and creating rules for how to turn the data into actionable information.***
- The rules, which are called ***algorithms, provide computing devices with step-by-step instructions*** for how to complete a specific task.

Reasoning processes

- This aspect of AI programming focuses on ***choosing the right algorithm to reach a desired outcome.***

Self-correction processes

- This aspect of AI programming is designed to ***continually fine-tune algorithms*** and ensure they provide the most accurate results possible.

Advantages of artificial intelligence

Artificial neural networks and deep learning artificial intelligence technologies are quickly evolving.

- It's primarily because ***AI processes large amounts of data much faster and makes predictions more accurately than humanly possible.***
- While the huge volume of data that's being created on a daily basis, AI applications that use machine learning ***can take that data and quickly turn it into actionable information.***

Disadvantages of AI

The primary disadvantage of using AI is that ***it is expensive to process the large amounts of data that AI programming requires.***

- ***AI technologies falling into terrorist hands may unleash modern terror network*** including machine and therefore vulnerability of humans may magnify.

- *It may lead to moral degradation in society* due to decreased human to human interactions.
- The **decrease in demand for human labour** due to machines and intelligent robots taking over the jobs in the manufacturing and the services sectors.

Artificial intelligence in India

As per **Global AI Report 2019**, India stood at the ninth position in terms of the number of the AI specialists working in the field.

- The US, China and the UK topped the list.
- **IIT Hyderabad has launched a full-fledged Bachelor of Technology (B Tech) program** in AI becoming the first Indian educational institution to do so.
- Defence forces of India are now venturing into the products and technologies which will aid defence measures using the AI and technologies.
- **It is estimated that AI will add 957 billion dollars to India's GDP by the year 2035** boosting India's annual growth by 1.3% points.

Benefits of AI in India

NITI Aayog estimates that adopting AI means a 15% boost for **the gross value added (GVA) for the economy by 2035**.

- India still has a conventional policing. **AI based products open a new window of opportunity to do predictive policing in India.**
- With the help of AI, **one can predict the pattern of crime**, analyze lot of CCTV footage which are available across the country to identify suspects.
- AI can increase **access and affordability of quality healthcare**.
- **In agriculture**, it can contribute towards enhancing farmers' income, increase farm productivity and reduce wastage.
- **Develop smarter and safer modes of transportation** to address traffic and congestion problems.
- **'Make in India' programme** can be strengthened and help India in becoming a major manufacturing hub with AI-assisted technology.

FOR PRELIMS

PRIME MINISTER'S RESEARCH FELLOWSHIP (PMRF) SCHEME

Govt has made country various amendments in PMRF Scheme to boost research in the country.

Highlights

- Scheme has been designed for improving the quality of research in various higher educational institutions in the country.
- It offers attractive fellowships to attract the best talent into research.
- The institutes which can offer PMRF include all the IITs, all the IISERs, Indian Institute of Science, Bengaluru and some of the top Central Universities/NITs that offer science and/or technology degrees.

GENERAL STUDIES-III

Topic- *Disaster and disaster management.*

FLASH FLOOD GUIDANCE SERVICES FOR SOUTH ASIA

Context

Ministry of Earth Sciences dedicated Flash Flood Guidance services, first of its kind for South Asian countries namely India, Bangladesh, Bhutan, Nepal and Sri Lanka on 22 October 2020.

What is it?

The Flash Flood Guidance is a robust system designed to provide the necessary products in real-time to support the development of **warnings for flash floods about 6- 12 hrs. in advance at the watershed level with resolution of 4kmx4km for the Flash Flood prone South Asian countries viz. India, Nepal, Bhutan, Bangladesh and Sri Lanka.**

Salient features of the system

- It is a collaborative work in the field of capacity building for **forecasting hydro-meteorological hazards.**
- The Guidance for flash floods in the form of **Threats (6 hours in advance) and Risks (24 hours in advance)** will be provided by **Regional Centre to National Meteorological & Hydrological Services, National and State Disaster Management Authorities.**
- It will enable all stake holders for taking necessary mitigation measures to reduce the loss of life and property in the South Asian Region countries.
- This will enable all the member countries **for issuing impact-based forecasting at watershed and also city level,** of floods which are very sudden and of short duration.

Flash Flood Guidance System (FFGS) project

- Recognizing that flash floods have a particularly disastrous impact on lives and properties of the affected populations, the **Fifteenth WMO Congress** had approved the implementation of a **Flash Flood Guidance System (FFGS) project with global coverage.**
- **It has been developed by** the WMO Commission for Hydrology jointly with the WMO Commission for Basic Systems and in collaboration with the US National Weather Service, the US Hydrologic Research Center (HRC) and USAID/OFDA.

Why IMD was given responsibility?

- India Meteorological Department (IMD) **has highly advanced capabilities** with respect to computing power, Numerical Weather Prediction, vast observational network (ground, air and space based), and an internationally acclaimed Weather Forecasting System.
- Therefore, **WMO has entrusted India with the responsibility of Regional Centre of South Asia Flash Flood Guidance System** for coordination, development and its implementation.

What is the Flash flood?

- Flash Floods are **highly localized events of short duration** with a very high peak and usually have **less than six hours between the occurrence of the rainfall and peak flood.**

- There is general lack of flash flood warning capabilities and capacities of the nations across the world.

Mains Question:

Discuss the increasing role and importance of India Meteorological Department (IMD) in providing various services in South Asia.

GENERAL STUDIES-III

Topic- Conservation, environmental pollution and degradation, environmental impact assessment.

PROJECT SNOW LEOPARD (PSL)

Context

The Government of India has been conserving snow leopard and its habitat through the Project Snow Leopard (PSL).

Highlights

- The **Project Snow Leopard** was launched in 2009.
- On the occasion of International Snow Leopard Day 2020 a **community volunteer programme “HimalSanrakshak”** was launched by GOI.
- The project encourages the States and UTs to adopt innovative strategies to resolve issues related to multi-stakeholder landscape management, human-wildlife conflicts, wildlife crime and trade in wildlife parts and products, capacity building, climate-smart energy solutions etc.

Snow Leopard conservation in India

- The Government of India has identified the **snow leopard as a flagship species for the high-altitude Himalayas.**
- Indian Government is committed **to landscape restoration for snow leopard habitat conservation**, and implementing participatory landscape-based management plans involving local stakeholders.
- India is also party to the **Global Snow Leopard and Ecosystem Protection (GSLEP) Programme** since 2013.
- **First National Protocol** was also launched last year on Snow Leopard Population Assessment which has been very useful for monitoring populations.
- The **Centre hosted the 4th Steering Committee of the GSLEP program in October 2019** at New Delhi.
- This meeting resulted in the **“New Delhi Statement” of strengthening the resolve of the snow leopard range countries** towards conservation of the mountain ecosystems of Central and South Asia.

India has identified three large landscapes, namely

1. Hemis-Spiti across Ladakh and Himachal Pradesh;
2. Nanda Devi – Gangotri in Uttarakhand; and
3. Khangchendzonga – Tawang across Sikkim and Arunachal Pradesh.

Project Snow Leopard and its effect on ecology

- In India, their geographical range encompasses a large part of the western Himalayas including the states and UTs of **Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh.**
- **Protecting the snow leopard and its habitat ensures protection of the major Himalayan Rivers** that support the teeming millions downstream.
- It also ensures that the ecological balance is maintained in these fragile ecosystems.

About Snow Leopard

The Snow Leopard is also known as **Ghost of the mountains.**

- It acts as an **indicator of the health of the mountain ecosystem** in which they live, due to their position as the top predator in the food web.
- The Snow Leopard **lives at high altitudes in the steep mountains of Central and Southern Asia**, and in an extremely cold climate.
- **Hemis, Ladakh is called as the Snow Leopard capital of the world.**
- **Hemis National Park is the biggest national park of India** and also has a good presence of Snow Leopard.

Conservation status

- **IUCN Red List**– Vulnerable
- Convention on International Trade in Endangered Species (**CITES**)- Appendix I
- Convention on Migratory Species (**CMS**)- Appendix I
- **Indian Wildlife (Protection) Act 1972**– Schedule I

Mains Question:

Snow Leopard acts as an indicator of the health of the mountain ecosystem in which they live. Why? Discuss.

GENERAL STUDIES-III

Topic- Science and Technology- developments and their applications and effects in everyday life.

INDIAN NATIONAL CENTRE FOR OCEAN INFORMATION SERVICES (INCOIS)

Context

Indian National Centre for Ocean Information Services launches New Trio of Products for marine-based users

About

The INCOIS, Hyderabad has launched a trio of products to better cater to its diverse users.

- **Small Vessel Advisory and Forecast Services System (SVAS)** to improve operations on the numerous small marine vessels, particularly fishing vessels that ply the coastal waters of India.
- **The Swell Surge Forecast System** will provide forewarnings for the coastal population of India's vast shoreline.

- **Algal Bloom Information Service (ABIS)**, providing timely information on harmful algal blooms.
- All three products focus on significantly reducing damage and losses for service/product users and the coastal population.

Small Vessel Advisory and Forecast Services System (SVAS)

- *The SVAS is an innovative impact-based advisory and forecast service system for small vessels operating in Indian coastal waters.*
- The SVA system warns users about potential zones where vessel overturning can take place, **ten days in advance**.
- The advisories are valid for small vessels of beam width up to 7 m.
- This limit covers the entire range of beam widths of the fishing vessels used in all the 9 coastal states and union territories of India.
- **The warning system is based on the 'Boat Safety Index' (BSI)** derived from wave model forecast outputs.
- It measures significant *wave height, wave steepness, directional spread and the rapid development of wind at sea* which is boat-specific.

Swell Surge Forecast System

- Swell surge forecast system is an innovative system designed for the prediction of **Kallakkadal/Swell Surge** that occurs along the Indian coast, particularly the west coast.
- The system will now predict Kallakkadal and warnings will be given to concerned authorities at least 2-3 days in advance.

Algal Bloom Information Service (ABIS)

- The increasing frequency of algal blooms is a major concern due to its ill effects on fishery, marine life and water quality.
- INCOIS has developed a service for **"Detection and Monitoring of Bloom in the Indian Seas"**.
- The target users are fishermen, marine fishery resource managers, researchers, ecologists and environmentalists.

Four regions have been identified as bloom hotspots viz.

1. *North Eastern Arabian Sea*
2. *coastal waters off Kerala*
3. *Gulf of Mannar and*
4. *Coastal waters of Gopalpur.*

What are the Kallakkadal/Swell Surge?

- **Kallakkadal/Swell surge are flash-flood events that take place without any noticeable advance change in local winds or any other apparent signature in the coastal environment.**
- Hence the local population remains totally unaware of these flooding events until they actually occur.
- Such events are intermittent throughout the year.
- Kallakkadal is a colloquial term used by Kerala fishermen to refer to the freaky flooding episodes and in 2012 UNESCO formally accepted this term for scientific use.

Difference between Tsunami and Kallakkadal/Swell surge

- During Kallakkadal events, the sea surges into the land and inundates vast areas.
- These events have attracted attention especially after the 2004 Tsunami in the Indian Ocean, since most people mistake Kallakkadal to be Tsunamis.
- Tsunami and Kallakkadal/Swell surge are two different types of waves with entirely separate causes or mechanisms.
- **Kallakkadal are caused by meteorological conditions in the Southern Ocean, south of 30°S.**
- The specific meteorological conditions in the Southern Indian Ocean support the generation of long period swells.
- These swells once generated, travel northward and reach the Indian coasts in 3-5 days time, creating havoc in the coastal areas.

Indian National Centre for Ocean Information Services (INCOIS)

- **ESSO-INCOIS was established as an autonomous body in 1999 under the Ministry of Earth Sciences (MoES).**
- It is a unit of the Earth System Science Organization (ESSO).
- INCOIS provides a number of free services for users in the marine realm.
- INCOIS prioritises requests for specific services from its diverse user community that ranges right from fishermen to offshore oil exploration industries.

GENERAL STUDIES-III

Topic- Food processing and related industries in India- scope' and significance, location, upstream and downstream requirements, supply chain management.

MARKET INTELLIGENCE AND EARLY WARNING SYSTEM (MIEWS)

Context

Union FPI Minister launches Market Intelligence and Early Warning System (MIEWS) Portal for Monitoring prices of TOP Crops (Tomato, Onion and Potato) and generating alerts.

About

- MIEWS Dashboard and Portal is a 'first-of-its-kind' platform for '**real time monitoring**' of **prices of tomato, onion and potato (TOP)**.
- It simultaneously generates alerts for intervention under the terms of the **Operation Greens (OG) scheme**.

The salient features of the MIEWS portal

- A dashboard that would indicate low price and high price alerts as well as price forecasts for 3 month forward.
- Prices and arrivals of TOP crops across the country including interactive charts and comparisons with previous seasons.
- Area, Yield and Production of TOP crops.
- Crop Agronomy and Trade Profile of each of the TOP crops.
- Regular and special reports on the market situation of the TOP crops.

CHROME IAS ACADEMY

- Sections like *Prices and arrivals, Area, yield and production, Crop Agronomy and Trade Profile* would be accessible to the public.
- While the *regular and special market intelligence reports and price forecasts* would be accessible only to the policy makers.

Benefits

The portal would disseminate all relevant information related to TOP crops such as Prices and Arrivals, Area, Yield and Production, Imports and Exports, Crop Calendars, Crop Agronomy, etc in an easy to use visual format.

FOR PRELIMS

INTERNATIONAL SNOW LEOPARD DAY 2020

Highlights

International Snow Leopard Day is **observed on 23rd October**.

- International Snow Leopard Day came into being on **23rd October, 2013, with the adoption of the Bishkek Declaration** by 12 countries on the conservation of snow leopards.
- The 12 snow leopard range countries included, **India, Nepal, Bhutan, China, Mongolia, Russia, Pakistan, Afghanistan, Kyrgyzstan, Kazakhstan, Tajikistan, and Uzbekistan.**
- **International Snow Leopard Day** is aimed to raise awareness on conservation and protection of snow leopards.

PIB-OCTOBER 27th, 2020

GENERAL STUDIES-III

Topic– Conservation, environmental pollution and degradation, environmental impact assessment.

4th INDIA ENERGY FORUM

Context

The Prime Minister inaugurated 4th India Energy Forum CERAWEEK.

Highlights

- The India Ministerial Dialogue was held at **4th India Energy Forum by CERAWEEK** virtually.
- The Indian, as well as regional energy companies, institutions, and governments, participated at the forum held under the patronage of the Ministry of Petroleum and Natural Gas.
- **The theme of this edition is “India’s Energy Future in a world of Change”.**

The key drivers of India’s energy map

According to the PM, ‘like the seven horses driving the chariot of Sun god, India’s energy map will have seven key drivers’.

These are:

1. *Accelerating our efforts to move towards a gas-based economy.*
2. **Cleaner use of fossil fuels** particularly petroleum and coal
3. *Greater reliance on domestic sources to drive bio-fuels.*
4. *Achieving the renewables target of 450 GW by 2030.*
5. *Increasing the contribution of electricity to de-carbonize mobility.*
6. *Moving into the emerging fuels including hydrogen*
7. **Digital innovation** across all the energy systems.

What is the 'India Energy Forum'?

India Energy Forum is a **unique, independent, not-for-profit, research organisation and represents energy sector as a whole.**

- The Forum **represents energy sector as a whole** was established in **October 2001.**
- The Forum has **acquired a unique status as a spokesman of total energy sector.**
- Most major public and private sector organizations in Power, Oil and Gas, Coal and Renewable Energy have become its members.
- The Forum serves as a catalyst for the development of a sustainable and competitive energy sector in India.
- The Forum tries to bring, Government institutions, policy makers, and multi-national agencies in an attempt to identify and resolve problems, which impede the development of projects in India.

Objective of India Energy Forum

- The Forum's mission is development of a sustainable and competitive energy sector.
- Promoting an effective regulatory framework, establishing standards for reliable and safety, ensuring an equitable deal for consumers, producers and the utilities, encouraging efficient and eco-friendly development.
- Use of energy and developing new and better technologies to meet the growing energy needs of the society.

CERAWeek

CERAWeek by IHS Markit has become the world's premier energy event.

- In 1983, **Cambridge Energy Research Associates (CERA)** was founded in Cambridge.
- Each year, CERA clients gathered for a few days in Houston, Texas to attend the executive conference where they gained insight into the energy future while connecting with their peers.
- Over time, the program was expanded to five days of informative sessions and networking opportunities—and **named CERAWeek.**

Mains Question:

'As India is experiencing the fastest growth in energy consumption among all large economies, the country will be the key driver of global energy demand in the coming decades.' Critically Discuss.

GENERAL STUDIES-I

Topic– Important Geophysical phenomena such as Earthquakes, Tsunami, Volcanic activity, Cyclone etc., geographical features and their location- changes in critical geographical features (including Waterbodies and Ice-caps) and in flora and fauna and the effects of such changes.

TECTONICALLY ACTIVE ZONE IN HIMALAYAS

Context

Newly identified tectonically active zone in Himalayas could alter earthquake study & predictions.

Highlights

The suture zone of the Himalayas or the Indus Suture Zone (ISZ) in the Ladakh region where Indian and Asian Plates are joined has been found to be tectonically active.

- Till now the region was considered as a **locked zone**.
- This could have **major implications in terms of earthquake study, prediction, understanding the seismic structure** of the mountain chains well as its evolution.

The Study

A group of Scientists from **Wadia Institute of Himalayan Geology (WIHG)**, Dehradun, have found through observations and detailed mapping of geological features.

The findings

- The **suture zone of Himalaya that was conventionally thought to be locked is tectonically active**.
- They carried out the mapping of the remote regions of Ladakh that forms the most hinterland part of the Himalaya.
- The **sedimentary beds are tilted and thrust broken**, the rivers are associated with uplifted terraces, and the bedrock shows **brittle deformation that occurred at much shallower depths**.
- These deformed geological features were then dated in the laboratory at Dehradun using a technique called **Optically Stimulated Luminescence (OSL)**, a method for carrying Luminescence dating of geological sediments, and data of seismicity and denudation rate reviewed.
- The combination of field and lab data suggested the **region of the Indus Suture Zone (ISZ) has been neo-tectonically active since the last 78000 — 58000 years**.
- A recent earthquake in **2010 of low magnitude 4.0 near the village of Upshi that occurred due to a thrust rupture**.

Significance of new findings

Himalaya were known to be made up of north dipping thrusts like the **Main Central Thrust (MCT)**, the **Main Boundary Thrust (MBT)**, and the **Main Frontal Thrust (MFT)**.

- **As per the established models**, all of these thrusts except MFT are locked, and overall deformation in Himalaya is being accommodated only along with the MFT.

- **The new findings**, which suggest a more remote fault at the suture zone being neo-tectonically active, could call for a serious relook into the existing evolutionary models using new techniques and a larger geological database.

GENERAL STUDIES-III

Topic– Science and Technology- developments and their applications and effects in everyday life.

INTERNATIONAL THERMONUCLEAR EXPERIMENTAL REACTOR (ITER)

Context

Recently, The ITER Organization **Started Assembly of the ITER Tokamak** with a ceremony at **Saint-Paul-Lez-Durance, France**.

What is ITER?

ITER (“The Way” in Latin) is one of the most ambitious energy projects in the world.

- The ITER international collaboration, large-scale building project that is underway in Saint Paul-lez-Durance, southern France.
- **In southern France, 35 nations are collaborating** to build the world’s largest tokamak.
- **It is a magnetic fusion device** that has been designed to prove the feasibility of fusion as a large-scale and carbon-free source of energy **based on the same principle that powers our Sun and stars.**

Key features of ITER

- ITER will be the first fusion **device to produce net energy.**
- **ITER will be the first fusion device to maintain fusion for long periods of time.**
- It will be the first fusion device **to test the integrated technologies, materials, and physics regimes necessary for the commercial production of fusion-based electricity.**
- The idea for an international joint experiment in fusion was **first launched in 1985.**

The ITER Members

China, the European Union, India, Japan, Korea, Russia and the United States—are now engaged in a 35-year collaboration to build and operate the ITER experimental device, and together bring fusion to the point where a demonstration fusion reactor can be designed.

What Will ITER Do?

- The amount of fusion energy a tokamak is capable of producing is a direct result of the number of fusion reactions taking place in its core.
- Scientists know that **the larger the vessel, the larger the volume of the plasma ... and therefore the greater the potential for fusion energy.**

The machine has been designed specifically to:

1. Produce 500 MW of fusion power
2. Demonstrate the integrated operation of technologies for a fusion power plant

3. *Achieve a deuterium-tritium plasma in which the reaction is sustained through internal heating*
4. *Test tritium breeding*
5. *Demonstrate the safety characteristics of a fusion device*

What is Fusion?

- ***Fusion is the energy source of the Sun and stars.***
- In the tremendous heat and gravity at the core of these stellar bodies, hydrogen nuclei collide, fuse into heavier helium atoms and release tremendous amounts of energy in the process.

Fusion in the Laboratory

- Twentieth-century fusion science identified the most efficient fusion reaction in the laboratory setting to be the ***reaction between two hydrogen isotopes, deuterium (D) and tritium (T).***
- The DT fusion reaction produces ***the highest energy gain at the “lowest” temperatures.***

Conditions

Three conditions must be fulfilled to achieve fusion in a laboratory:

1. ***Very high temperature*** (on the order of 150,000,000° Celsius);
2. ***Sufficient plasma particle density*** (to increase the likelihood that collisions do occur);
3. ***Sufficient confinement time*** (to hold the plasma, which has a propensity to expand, within a defined volume).

How does Fusion take place?

- At extreme temperatures, electrons are separated from nuclei and a gas becomes a plasma—often referred to as the fourth state of matter.
- Fusion plasmas provide the environment in which light elements can fuse and yield energy.
- ***In a tokamak device***, powerful magnetic fields are used to confine and control the plasma.

What is a TOKAMAK?

- ***The tokamak is an experimental machine designed to harness the energy of fusion.***
- Inside a tokamak, the energy produced through the fusion of atoms is absorbed as heat in the walls of the vessel.
- Just like a conventional power plant, a fusion power plant will use this heat to produce steam and then electricity by way of turbines and generators.

India's Contribution

India is contributing, viz., *the cryostat, in vessel shields, substantial contributions to the cooling water, cryogenic and cryo-distribution systems, auxiliary heating devices using RF and beam technologies, multi megawatt power supplies and several diagnostics to help ITER to achieve and demonstrate its goal.*

BUNDI: ARCHITECTURAL HERITAGE OF A FORGOTTEN RAJPUT CAPITAL

Dekho Apna Desh Webinar series titled "Bundi: Architectural Heritage of a Forgotten Rajput Capital" focused on Bundi, Rajasthan.

Highlights

Bundi was the erstwhile **capital of Hada Rajput province known as Hadauti** located in **south-eastern Rajasthan**.

- Bundi is also known as **City of stepwalls, blue city and also as Chotti Kashi**.
- In ancient times, the area around Bundi was apparently inhabited by various local tribes.
- Later the region was governed by **Rao Deva**, who took over Bundi from Jaita Meena in 1242, renaming the surrounding area as **Haravati or Haroti**.
- For the next two centuries, the Hadas of Bundi were the vassals of the Sisodias of Mewar and ruled by the title of Rao until 1569.

Architectural heritage of Bundi

- **Garh (Fort):** Taragarh
- **Garh Mahal (Royal Palace):** Bhj Mahal, Chattar Mahal, Ummed Mahal,
- **Baori (Step well):** Khoj Darwaja ki Baori, Bhawaldi Baori
- **Kund (Stepped tank):** Dhabhai ji ka Kund, Nagar Kund & Sagar Kund, Rani Kund
- **Sagar mahal (Lake Palace):** Moti Mahal, Sukh Mahal, Shikar Burj
- **Chhatri (Cenotaph):** Chaurasi

PIB-OCTOBER 28th, 2020

GENERAL STUDIES-II

Topic – *Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.*

INDIA- USA 2+2 MEETING

Context

The third 2+2 ministerial dialogue between New Delhi and Washington was held in New Delhi on 27 October.

In 2+2 ministerial dialogue, US Defence Secretary Mark T Esper and Secretary of State Michael R Pompeo and Defense Minister Rajnath Singh and External Affairs Minister S Jaishankar will take part.

What is the 2+2 Dialogue?

In 2+2 ministerial dialogue, two equivalent top level officials from participating countries held a discussion on several issues and resolved them.

Highlights

- The **Basic Exchange and Cooperation Agreement (BECA)** is one of the highlights in the outcome of the meeting
- During the dialogue, **India is likely to sign the BECA for geospatial cooperation with the US.**
- **During the 2+2 dialogue, expanding cooperation between the two militaries will be high on agenda.**
- **This includes the two navies, which play a critical role in ensuring freedom of navigation in the Indo-Pacific.**

What is BECA?

The Basic Exchange and Cooperation Agreement (BECA) **for geo-spatial cooperation is essentially a communication agreement** proposed between the National Geospatial-Intelligence Agency of the US Department of Defence and the Ministry of Defence of the Government of India.

- **It will allow India and the US to share military information including advanced satellite and topographic data such as maps, nautical and aeronautical charts and geodetic, geophysical, geomagnetic and gravity data.**
- **Most of the information shared will be unclassified.**
- However, the pact includes a provision of sharing classified information with safeguards to prevent it from being shared with any third party.

What will India gain from BECA?

- **The BECA will allow US armed forces to provide advanced navigational aids and avionics on US-supplied aircraft to India.**
- **Sharing geospatial intelligence with the US through BECA will boost the Indian military's accuracy of automated hardware systems and weapons** like cruise missiles, ballistic missiles and drones.
- **It is a key step for India when it comes to acquiring armed drones such as MQ-9B from the US.**
- **BECA is to help India and the US counter growing Chinese influence in the Indo-Pacific region.**
- **The two countries have also been ramping up engagement with Australia and Japan — two other members of the 'Quad'.**

Significance of 2+2 ministerial meeting

The recently concluded 2+2 ministerial meeting evaluated and consolidated the gains made over the last four years.

- **It also set up ambitious targets and initiatives for the next incumbent in the US administration, cutting across sectors from nuclear to defence, and narcotics to health.**
- **New Delhi will now watch the next White House occupant on how he takes the ties forward.**

Mains Question

Given the china's aggressive traits in the region, discuss the significance of Basic Exchange and Cooperation Agreement (BECA) between India and USA.

Topic– Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

ERADICATION OF CHILD LABOUR

Context

The Government is implementing the National Child Labour Project (NCLP) Scheme and Grant-in-Aid (GIA) Schemes for rehabilitation of child labour.

Government's initiative

The NCLP and GIA Schemes are **being implemented in districts which have high concentration of children working in the hazardous occupations.**

- The objective of Schemes is to rehabilitate children withdrawn from hazardous occupations and processes in the age group of 9-14 years.
- The schemes target of mainstreaming children to the formal education system.

The National Child Labour Project (NCLP) Scheme

The NCLP Scheme is a **Central Sector Scheme**. Under this Scheme the District Project Societies (DPS) are set up at the district level.

- Collector/District Magistrate will head for overseeing the implementation of the project.

What will be the scheme do?

Under this Scheme, the children **in the age group of 9-14 years** are withdrawn from work and put into NCLP Special Training Centres.

- Children are provided with bridge education, vocational training, mid-day meal, stipend, health care etc. before being mainstreamed into formal education system.
- The children in the **age group of 5-8 years** are directly linked to the formal education system through a close coordination with the Sarva Shiksha Abhiyan.

PENCiL palteform

A dedicated online portal named PENCiL (**Platform for Effective Enforcement for No Child Labour**) is developed in order to make the NCLP successful.

- It will monitor and implement the timely disposal of work with transparency.
- PENCiL will ensure the effective enforcement of the provisions of the Child Labour Act and smooth implementation of NCLP Scheme,

Objectives of the NCLP Scheme

To eliminate all forms of child labour through identification and withdrawal of all children in the Project Area from child labour.

- Preparing children withdrawn from work for mainstream education along with vocational training
- Ensuring convergence of services provided by different government departments /agencies for the benefit of child and their family
- To contribute to the withdrawal of all adolescent workers from Hazardous Occupations/ Processes and their Skilling and integration in appropriate occupations.
- Creation of a Child Labour Monitoring, Tracking and Reporting System.

Funds

Under NCLP Scheme funds are released to the NCLP Project Society chaired by District Magistrate/ District Collector who in turn allocates the funds to the Child Labour special schools.

- Wherever the NCLP Scheme is not in operation, GIA Scheme is implemented.
- Under GIA Scheme, funds are directly released by Central Government to the NGOs to run Child Labour special schools.

Way forward

As per 2001 census, the total number of working children between the age group 5-14 years in the country was 1.26 crore.

- However, in the Survey conducted by NSSO, in 2004-05 the numbers of working children were estimated at 90.75 lakh.
- As per NSSO survey 2009-10, the working children are estimated at 49.84 lakh which is 45% reduction during five years.

GENERAL STUDIES-III

Topic– Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

COIR GEO TEXTILES

Context

Coir Geo textiles gets nod for Rural Road Construction

Highlights

Coir Geo textiles will be **used for construction of rural roads under the PMGSY-III**. As per the PMGSY new technology guidelines for road construction, 15% length in each batch of proposals, is to be constructed using new technologies.

- Out of this 5% roads are to be constructed using Indian Road Congress (IRC) accredited technology.
- The IRC has now accredited coir Geo textiles for construction of rural roads.
- As per these instructions, **5% length of the rural roads under PMGSY-III will be constructed using Coir Geo textiles.**
- Accordingly road will be constructed using coir geo textiles in **Andhra Pradesh, Kerala, Maharashtra, Odisha, TN and Telengana.**

What is the Coir Geo textile?

Coir (coconut fiber) geotextiles are popular for erosion control, slope stabilization and bioengineering, due to the fabric's substantial mechanical strength.

- Geotextiles are permeable fabrics which, when used in association with soil, have the ability to separate, filter, reinforce, protect, or drain.
- Typically made from polypropylene or polyester, geotextile fabrics come in three basic forms: woven, needle punched or heat bonded.
- Geotextiles are able to withstand many things, are durable, and are able to soften a fall if someone falls down.

Applications

- Slope stabilization
- Embankment and stream bank stabilization
- Effective erosion and sediment control
- Highway shoulder stabilization
- Landscaping and Golf Courses
- Lush green natural lawn made of coir geotextile and coco peat
- Filtration and drainage

Benefits

- Prevent soil erosion
- Faster binding of soil
- Excellent air and water permeability
- Cost effective and easy to install and maintain
- Promotes natural vegetation
- 100 % biodegradable and environment friendly

FOR PRELIMS

K. R. NARAYANAN

On 27 October, the Birth anniversary of India's former President was celebrated.

Highlights

- K R Narayanan was born on 27 October 1920 in a Dalit family in Uzhavoor, now in the **Kottayam district of Kerala**.
- Through his education, **he emerged as a great scholar like Dr B R Ambedkar**.
- He joined the **Indian Foreign Service** and served as an **Indian Ambassador in several countries, including China**.
- He was appointed as **Vice Chancellor of Jawaharlal Nehru University (JNU) in January 1979**.
- He was elected to Parliament and **became a minister in the Union government**.
- He was elected as the **Vice President in 1992 and finally the President in 1997**.
- Nation recalls the **exemplary role played by him in preserving, protecting and defending the Constitution**.
- His role in upholding it constitutes an enduring legacy worthy of replication.

AGREEMENT BETWEEN INDIA POST AND UNITED STATES POSTAL SERVICE (USPS)

Highlights

- India Post and United States Postal Service (USPS) signs Agreement **for Electronic Exchange of Customs Data related to postal shipments exchanged between the two countries**.
- The agreement aims to facilitate **'ease of exports'** for small and large exporters through postal channels.

INFANTRY DAY CELEBRATED

Highlights

Infantry Day to commemorate the contributions of Infantry, the **largest fighting arm of the Indian Army was celebrated on 27 October 2020.**

- This day has a unique significance for Infantry.
- **It was on this day in 1947 that Infantrymen from Indian Army became the first troops to land at Srinagar airport.**
- It was an act which turned back the invaders from the outskirts of Srinagar and saved the state of Jammu and Kashmir from a Pakistan backed tribal invasion.

Direct Port Entry Facility

Shipping ministry inaugurated the '**Direct Port Entry (DPE) facility**' of V.O. Chidambaranar Port, Tamil Nadu.

- The **state-of-the-art Direct Port Entry (DPE) facility** is the noteworthy step towards **reducing the logistics cost and to increase the velocity of cargo** for boosting ease of doing business and economy growth.
- DPE facility would enable direct movement of containers from factories, **without intermediate handling at any CFS**, thus facilitating the shippers to Gate-In their factory stuffed exports directly to the Container Terminal on 24x7 basis.

PIB-OCTOBER 29th, 2020

GENERAL STUDIES-II

Topic– *Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.*

UK-INDIA ECONOMIC AND FINANCIAL DIALOGUE

Context

*Finance Minister leads Indian delegation in **10th Round of Ministerial UK-India Economic and Financial Dialogue (EFD).***

Highlights

- The Dialogue, inter alia, **covered sharing of experiences on corona virus response**, to enable both countries to be enriched through experiences of the other.
- Issues related to **international tax agenda** including development of inclusive consensus based solution on the **taxation of digital economy** was discussed.
- **Infrastructure development and promotion of Sustainable Finance** were also discussed with a **focus on green finance.**
- It was also decided to **establish bilateral India- UK Sustainable Finance Forum.**
- Private sector initiatives under **India-UK Financial Partnership (IUKFP)** and **India-UK Sustainable Finance Working Group** were welcomed.

India-UK Trade relations

India has had strong historical ties with the U.K. and it is one of India's most important trading partners.

- It is a **significant partner of India as an FDI investor after Singapore and Mauritius** which ranked first and second respectively.
- U.K. is one of the **largest investors in India, among the G20 countries**.
- The bilateral trade between the two countries stood at **15.5 billion USD in 2019-20 as against 16.87 USD billion in 2018-19**.
- India has engagement with the UK in **sectors like pharma, textiles, leather, industrial machinery, furniture, and toys**.
- India is also looking to the UK to support it with technology based products such as high quality cameras, medical devices, and automobiles.

Significance

India and the United Kingdom enjoy **close bilateral relations in diverse areas**.

- India-UK economic ties are important as **together they are two of the world's top seven economies with a combined GDP of over \$5 trillion**.
- India-UK trade has more than doubled **since the first EFD in 2007**, with bilateral investment supporting over half a million jobs across both countries.

GENERAL STUDIES-III

Topic– Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

ELECTRICITY ACCESS & UTILITY BENCHMARKING REPORT

Context

Recently, 'Electricity Access in India and Benchmarking Distribution Utilities' report was launched by **NITI Aayog, Ministry of Power, Rockefeller Foundation, and Smart Power India**.

Highlights

Based on a primary survey conducted across 10 states the report assesses 25 distribution utilities.

It aimed at capturing insights from both the demand (electricity customers) as well as supply side (electricity distribution utilities).

The report seeks to:

- **Evaluate the status of electricity access in India** across these states and distribution utilities along all dimensions that constitute meaningful access.
- Benchmark utilities' capacity to provide electricity access and **identify the drivers of sustainable access**.
- Develop recommendations for **enhancing sustainable electricity access**.

Key findings of the report:

- As much as **92% of customers reported the overall availability of electricity infrastructure** within 50 metres of their premises;
- However, **not all have connections**, the primary reason being the distance of households from the nearest pole.

- Overall, **87% of the surveyed customers have access to grid-based electricity.**
- The remaining **13% either use non-grid sources or don't use any electricity at all.**
- The **hours of supply have improved** significantly across the customer categories to nearly 17 hours per day.
- Nearly **85% of customers reported to have a metered electricity connection.**
- **Access to electricity is observed in 83% of household customers.**
- The study suggested that a **total of 66% of those surveyed were satisfied**—74% of customers in urban areas and 60% in rural areas.

Significance of the Report

The report underlines **some best practices adopted by the better-performing electricity distribution utilities in India** and provides key recommendations to enhance sustainable electricity access.

- The data from the survey provides **evidence that the infrastructure of providing electricity across sectors has improved** over time.
- It also shows that reforms undertaken by the Government have been appreciated by the stakeholders.

GENERAL STUDIES-II

Topic— *Government policies and interventions for development in various sectors and issues arising out of their design and implementation.*

NATIONAL PROGRAM AND PROJECT MANAGEMENT POLICY FRAMEWORK INITIATIVE

Context

NITI Aayog and Quality Council of India, recently, launched the 'National Program and Project Management Policy Framework' (**NPMPF**).

What is it?

- The NPMPF were envisaged **to bring radical reforms in the way infrastructure projects are executed in India.**
- The **certification system under the framework** links the scale and complexity of projects to competence of professionals.
- A self-paced learning system, rigorous and comprehensive exam at each level with continued professional development will serve as **pillars of the framework.**

Why it was needed?

India **requires an investment of around \$4.5 trillion by 2040** to develop the infrastructure for sustaining its economic growth.

- The challenges in infrastructure development that often obstruct the smooth execution of projects can be a detriment.
- Therefore, **a task force was constituted to lay down a national program and project management policy framework** to improve performance of infrastructure projects.

Aim of the NPMPF

This framework aims to formulate radical reforms in the way large and mega infrastructure projects are managed in India, with an action plan to:

1. Adopt a program and project management approach to infra development
2. Institutionalize and promote the profession of program and project management and build a workforce of such professionals,
3. Enhance institutional capacity and capability of professionals

Significance

NPMPF will help in realizing an Aatmanirbhar Bharat by building a stronger India, in which we would need good quality infrastructure; we would need to reduce costs and waste material, without compromising on the environment and ecology.

GENERAL STUDIES-II

Topic– Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

SCHEME FOR FORMALISATION OF MICRO FOOD PROCESSING ENTERPRISES (FME)

Context

The Union Cabinet has given its approval to “Scheme for Formalisation of Micro food processing Enterprises (FME)”.

About

It is a **Centrally Sponsored Scheme**. Expenditure to be shared by Government of India and States at 60:40.

- It aims for the Unorganized Sector on All India basis with an outlay of Rs.10,000 crore.
- Scheme will be implemented over a 5 year period from 2020-21 to 2024-25.
- Cluster approach.
- Focus on perishables.

Objectives

- Increase in access to finance by micro food processing units.
- Enhanced compliance with food quality and safety standards.
- Transition from the unorganized sector to the formal sector.
- Special focus on women entrepreneurs and Aspirational districts.
- Focus on minor forest produce in Tribal Districts.

Support to Individual micro units:

- Micro enterprises will get credit linked subsidy @ 35% of the eligible project cost with ceiling of Rs.10 lakh.
- Beneficiary contribution will be minimum 10% and balance from loan.
- On-site skill training & Handholding for DPR and technical upgradation.

Support to FPOs/SHGs/Cooperatives:

CHROME IAS ACADEMY

- Seed capital to SHGs for loan to members for working capital and small tools.
- Grant for backward/ forward linkages, common infrastructure, packaging, marketing & branding.
- Skill training & Handholding support.
- Credit linked capital subsidy.

Implementation Mechanisms

The Scheme would be **monitored at Centre by an Inter-Ministerial Empowered Committee (IMEC) under the Chairmanship of Minister, FPI.**

- The **State/ UT Government will notify a Nodal Department and Agency** for implementation of the Scheme.
- A **National level portal** would be set-up wherein the applicants/ individual enterprise could apply to participate in the Scheme.

Significance

Nearly **eight lakh micro- enterprises will benefit** through access to information, better exposure and formalization. **Credit linked subsidy support and hand-holding** will be extended to 2,00,000 micro enterprises for expansion and upgradation.

FOR PRELIMS

RASHTRIYA EKTA DIWAS

*The Iron Man of India, **Sardar Vallabhbhai Patel's Birth Anniversary** is observed as Rashtriya Ekta Diwas or National Unity Day every year on **31 October**.*

About Sardar Vallabhbhai Patel

- Sardar Vallabhbhai Patel was **born on October 31, 1875, in Gujarat**. He studied law and was one of the most successful lawyers in the country.
- **In 1917, Sardar Patel joined the Indian Independence struggle** after he met Mahatma Gandhi. He encouraged Indians to sign a petition demanding complete Swaraj or self-rule.
- He had organized relief efforts during the Gujarat famine and **was the force behind the 'Gujarat Satyagraha'.**
- In 1920, Sardar Patel became the President of Gujarat Pradesh Congress Committee and **worked against alcoholism, untouchability, caste discrimination.**
- Sardar Vallabhbhai Patel was a key aide of Mahatma Gandhi in his **Non-Cooperation Movement and switched to wearing only khadi.**
- He **led the Indian National Congress** and organized the party for elections in **1934 and 1937.**
- Sardar Patel was given the huge task of **unifying the 565 princely states to independent India**, which earned him the title of 'Iron Man of India'.
- He died on **December 15, 1950**, in Bombay. Sardar Vallabhbhai Patel was **awarded the Bharat Ratna posthumously.**

Aarambh 2020

Aarambh is **an initiative to bring all the probationers of All India Service, Group-A Central Service and Foreign Service together for a Common Foundation Course (CFC).**

CHROME IAS ACADEMY

- Aarambh aims at making the civil servants capable of leading the transformation and work seamlessly across departments and fields.
- “Aarambh” was started as part of the 94th Foundation Course in 2019 where Officer Trainees (OTs) from 20 Services participated in a week-long programme at the Statue of Unity, Kevadia, Gujarat.

DrTulsi Das Chugh Award-2020

- CSIR-CDRI Scientist, **Dr Satish Mishra** bags “DrTulsi Das Chugh Award-2020” given by **National Academy of Medical Sciences (India)**.
- The award was given in recognition of his **research work on Malaria parasite’s life cycle**.

The Academy and the Award

National Academy of Medical Sciences (India) is a unique institution which fosters and utilizes academic excellence as its resource to meet medical and social goals.

- It was registered as the ‘**Indian Academy of Medical Sciences**’ on **21st April, 1961** under Societies Registration Act XXI of 1860.
- The Academy was re-named **National Academy of Medical Sciences (India)** on **16th November, 1976**.
- The Academy encourages and sponsors nation-wide CME programmes, Symposia, Workshops etc.

PIB-OCTOBER 30th, 2020

General Studies- III

Topic– Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

DAM REHABILITATION AND IMPROVEMENT PROJECT (DRIP)

Context

Cabinet approves Externally Aided Dam Rehabilitation and Improvement Project – Phase II and Phase III.

Highlights

The Project has been approved **with the financial assistance of the World Bank (WB), and Asian Infrastructure Investment Bank (AIIB)**.

- It aimed **to improve the safety and operational performance of selected dams across the whole country**, along with institutional strengthening with system wide management approach.
- The **Project will be implemented over a period of 10 years duration in two Phases, each of six years duration** with two years overlapping from April, 2021 to March, 2031.

DRIP Phase II & Phase III envisages the following objectives:

1. **To improve the safety and performance of selected existing dams** and associated appurtenances in a sustainable manner.
2. To strengthen the **dam safety institutional setup in participating states** as well as at central level, and

3. To explore the alternative incidental means at few of selected dams to generate the incidental revenue for sustainable operation and maintenance of dams

What is the DRIP Project?

Dam Rehabilitation and Improvement Project (DRIP) was launched in 2012 by the Ministry of Water Resources (MoWR) and River Development and Ganga Rejuvenation (Ministry of Jal Shakti) with assistance from World Bank.

- The Central Dam Safety Organisation of Central Water Commission, assisted by a Consulting firm, is coordinating and supervising the Project implementation.
- Originally the project was envisioned for rehabilitation and improvement of about 223 dams in 4 States, namely Kerala, Madhya Pradesh, Orissa, and Tamil Nadu.
- Now the project has been extended to 736 existing dams located across India.

Need for

Globally India ranks third after China and the USA in terms of the number of large dams with 5264 large dams in operation and 437 large dams under construction.

- About 209 dams in India are over 100 years old and were built in an era when design practices and safety considerations were much below the current design and safety norms.
- Several of these dams may be experiencing distress and are in need of attention for ensuring their structural safety and operational efficiency.

Mains Question:

Discusses the types of Dams built in India and what are the concerns associated with larger dams in the country?

GENERAL STUDIES- III

Topic- Inclusive growth and issues arising from it.

MANDATORY PACKAGING IN JUTE MATERIALS

Context

Cabinet approves Extension of Norms for Mandatory Packaging in Jute Materials.

Highlights

- The 100% of the foodgrains and 20% of the sugar shall be mandatorily packed in diversified jute bags.
- To pack sugar in diversified jute bags will give an impetus to the diversification of the jute industry.
- The decision also mandates that initially 10% of the indents of jute bags for packing foodgrains would be placed through reverse auction on the Gem portal.
- This will gradually usher in a regime of price discovery.
- The Government has expanded the scope of mandatory packaging norms under the Jute Packaging Material (JPM) Act, 1987.

Background

- Nearly 3.7 lakh workers and several lakh farm families are dependent for their livelihood on the jute sectors.
- The government has been making concerted efforts for the **development of jute sector**; increasing the quality and productivity of raw jute, diversification of jute sector and also boosting and sustaining demand for jute products.

The Jute Packaging Materials (Compulsory use in Packing Commodities) Act, 1987

- It is also known as the **JPM Act**.
- **It provide for** the compulsory use of jute packaging material in the supply and distribution of certain commodities in the interest of production of raw jute and jute packaging material and of persons engaged in the production thereof.

Benefits Packaging in Jute Materials

- The approval **will benefit farmers and workers located in the Eastern and North Eastern regions of the country** particularly in the states of West Bengal, Bihar, Odisha, Assam, Andhra Pradesh, Meghalaya and Tripura.
- The **jute industry is predominantly dependent on Government sector** which purchases jute bags of value of more than Rs. 7,500 crore every year for packing foodgrains.
- This is done in order **to sustain the core demand for the jute sector and to support the livelihood of the workers and farmers dependent on the sector.**

Other Support provided to the Jute Sector:

Approximately **two lakh jute farmers are being assisted with improved agronomic practices** such as line sowing using seed drills, weed management by using wheel-hoeing and nail-weeders, distribution of quality certified seeds and also providing microbial assisted retting.

- To support jute farmers, a grant of subsidy of Rs. 100 crore for two years starting from 2018-19 has been approved.
- To support diversification of jute sector, **the National Jute Board has collaborated with National Institute of Design and a Jute Design Cell has been opened at Gandhinagar.**
- To boost demand in the jute sector, Government of India has imposed **Definitive Anti-Dumping Duty on import of jute goods from Bangladesh and Nepal with effect from 5th January, 2017.**
- To promoting transparency in jute sector, **Jute SMART, an e-govt initiative** was launched in December, 2016.
- Further, the **JCI is transferring 100% funds to jute farmers online for jute procurement under MSP and commercial operations.**

Mains Questions:

'Packaging in Jute Materials will improve the lives of farmers as well as it is environmental friendly.' Discuss.

GENERAL STUDIES- II

Topic– Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

PRODUCTION LINKED INCENTIVE SCHEME (PLI)

Context

PLI scheme has been huge success in terms of the applications received from Global as well as Domestic Mobile Phone manufacturing companies and electronic components manufacturers: Union minister

What is PLI scheme?

Production Linked Incentive Schemes (PLI Scheme) **are an outcome- and output-oriented scheme where incentives will be paid only if the manufacturers make the goods.**

- These schemes provide **the cash incentives for five to seven years and all the sunrise and important sectors** are proposed to be covered in this.
- **The sectors** includes automobile, networking products, food processing, advanced chemistry and solar PV manufacturing.

Highlights of PLI Scheme for Electronics Manufacturing

- PLI Scheme for Large Scale Electronics Manufacturing was notified on 1st April, 2020.
- It is a part of the National Policy on Electronics and is launched by IT ministry.

Key features

- PLI Scheme ***extends an incentive of 4% to 6% on incremental sales (over base year) of goods under target segments that are manufactured in India to eligible companies***, for a period of five years subsequent to the base year (FY2019-20).
- According to the scheme, ***companies that make mobile phones which sell for Rs 15,000 or more will get an incentive of up to 6 per cent on incremental sales*** of all such mobile phones made in India.
- In the same category, ***companies which are owned by Indian nationals*** and make such mobile phones, the incentive has been kept at Rs 200 crore for the next four years.

Tenure of the scheme

- The PLI scheme will be active for five years with financial year (FY) 2019-20 considered as the base year for calculation of incentives.

Eligibility

- All electronic manufacturing ***companies which are either Indian or have a registered unit in India*** will be eligible to apply for the scheme.
- These companies can either create a new unit or seek incentives for their existing units from one or more locations in India.
- Any ***additional expenditure incurred by companies on plant, machinery, equipment, research and development and transfer of technology*** for manufacture of mobile phones and related electronic items will be eligible for the incentive scheme.
- However, all ***investment done by companies on land and buildings for the project will not be considered*** for any incentives or determine eligibility of the scheme.

Significance

The scheme, will on one hand attract big foreign investment in the sector, while also encouraging domestic mobile phone makers to expand their units and presence in India.

Mains Questions:

How the initiative like 'Production Linked Incentive Scheme (PLI)' can boost the Indian Economy? Discuss.

FOR PRELIMS

ARMY LAUNCHES SECURE APPLICATION FOR INTERNET (SAI)

In the quest for 'Atmanirbhar Bharat', Indian Army has developed a simple and secure messaging application named the "Secure Application for Internet (SAI)".

- The application supports **end to end secure voice, text and video calling services** for Android platform over internet.
- **SAI scores over on security features** with local in-house servers and coding which can be tweaked as per requirements.
- The application has been **vetted by CERT-in empaneled auditor and Army Cyber Group**.
- **SAI will be utilised pan Army** to facilitate secure messaging within the service.

OPERATION MERI SAHELI

Indian Railways has launched "Meri Saheli" initiative for focused action on security of women across all zones.

Objective: to provide safety and security to lady passengers travelling by trains for their entire journey from starting station to destination station.

How it works?

- The Lady passengers are told to **dial 182 in case they face or see any problem in the coach**.
- RPF teams at the destination collect the feedback from the identified lady passengers. The feedback is then analysed and corrective action, if any, is taken.
- If some distress call comes from a train covered under "Meri Saheli" initiative, the disposal of the call is monitored at the level of senior officers.

PIB-OCTOBER 31st, 2020

GENERAL STUDIES- II

Topic– Statutory, regulatory and various quasi-judicial bodies.

FIFTEENTH FINANCE COMMISSION

Context

The 15th Finance Commission concludes deliberations.

Highlights

- The **Fifteenth Finance Commission (XVFC)** has concluded their deliberations on the **Report for the year 2021-2022 to 2025-2026**.
- The Commission will **present its Report to the Honourable President of India**.
- The Commission **will also present a copy of the Report to the Honourable Prime Minister later next month**.

- The Report **will be tabled in the Parliament by the Union Finance Minister along with an Action Taken Report of the Government of India.**

About the XVFC

The Fifteenth Finance Commission was constituted on **27 November 2017**.

It was formed against the backdrop of the **abolition of Planning Commission** (as also of the distinction between Plan and non-Plan expenditure) and the **introduction of the goods and services tax (GST)**, which has fundamentally redefined federal fiscal relations.

- It was mandated **to give recommendations for vertical and horizontal devolution of taxes for five fiscal years, commencing 1 April 2020.**
- Its recommendations will cover a **period of five years from April 2020 to March 2025.**

Composition of XVFC

- **Chairperson:** NK Singh
- **Members:** Shri. Ajay Narayan Jha, Prof. Anoop Singh, Dr. Ashok Lahiri and Dr. Ramesh Chand.

Finance Commission of India (FCI)

Finance Commission of India is **established by President of India as per Article 280** of the constitution.

Article 280 states: *President should, within two years of commencement of the Constitution and thereafter on expiry of every 5th year, or at such intervals as he/ she thinks necessary, would constitute a Finance Commission.*

- The finance commission is an **autonomous body** which is governed by the government of India.
- **The First Finance Commission was constituted** vide Presidential Order dated 22.11.1951 under the **chairmanship of Shri K.C. Neogy on 6th April, 1952.**
- **Fifteen Finance Commissions** have been constituted so far **at intervals of every five years.**

Two distinctive features of the Commission's work

- Involve redressing the vertical imbalances between the taxation powers and expenditure responsibilities of the Centre and the States respectively, and
- Equalization of all public services across the States.

Members

A Finance Commission would consist of a Chairman and 4 other members who are all will be appointed by the President.

The Chairman of the Commission is selected from among persons who have had experience in public affairs, and the four **other members are selected from among persons who:**

- are, or have been, or are **qualified to be appointed as Judges of a High Court;** or
- have **special knowledge of the finances and accounts of Government;** or
- have had **wide experience** in financial matters and in administration; or
- have **special knowledge of economics**

Functions

- **Distribution of net proceeds of taxes between Center and the States**, to be divided as per their respective contributions to the taxes.
- **Determine factors governing Grants-in-Aid** to the states and the magnitude of the same.
- **To make recommendations to the president** as to the measures needed to augment the Fund of a State to supplement the resources of the panchayats and municipalities in the state on the basis of the recommendations made by the finance commission of the state.
- **Any other matter** related to it by the president in the interest of sound finance.

Need and significance

- The Indian federal system allows for the division of power and responsibilities between the Centre and states.
- Correspondingly, the taxation powers are also broadly divided between the Centre and states.
- State legislatures may devolve some of their taxation powers to local bodies.

Mains Question:

Discuss the role that Finance Commission play in improving Centre state administrative relations?

FUNDAMENTALS

Ecologically Sensitive Area of Western Ghats

Context

States express desire to expedite early notification of Ecologically Sensitive Area (ESA) of Western Ghats.

Background

Recently, **A High Level Working Group under the Chairmanship of Dr. Kasturirangan** was constituted by GOI to conserve and protect the bio diversity of Western Ghats while allowing for sustainable and inclusive development of the region.

- The Committee had recommended that **identified geographical areas falling in the six States of Kerala, Karnataka, Goa, Maharashtra, Gujarat and Tamil Nadu may be declared as Ecologically Sensitive Areas.**
- A draft notification was issued in October 2018 mentioning the areas to be notified in the ESA.

Kasturirangan report on Western Ghats

The **Kasturirangan report** has sought to balance the two concerns of development and environment protection, by **watering down the environmental regulation regime proposed by Gadgil.**

- It seeks to bring **just 37% of the Western Ghats under the ESA zones — down from the 64% suggested by the Gadgil report.**
- The report **distinguishes between cultural and natural landscape.**
- It said that cultural landscapes, which include human settlements, agri fields and plantations, covered 58.44% of the Western Ghats.

Key recommendations of Kasturirangan report

- A ban on mining, quarrying and sand mining.
- No new thermal power projects, but hydro power projects allowed with restrictions.
- A ban on new polluting industries.
- Building and construction projects up to 20,000 sq m was to be allowed but townships were to be banned.
- Forest diversion could be allowed with extra safeguards.

Gadgil report on Western Ghat

Gadgil committee defined the boundaries of the Western Ghats for the purposes of ecological management. **It proposed that this entire area be designated as ecologically sensitive area (ESA).**

- Within this area, **smaller regions were to be identified as ecologically sensitive zones (ESZ) I, II or III** based on their existing condition and nature of threat.
- **75 per cent area would fall under ESZ I or II** or under already existing protected areas such as wildlife sanctuaries or natural parks.
- It suggested the formation of a **Western Ghats Ecology Authority (WGEA)**, a statutory authority which enjoys the powers under the Environment (Protection) Act.
- ***The major criticism faced by Gadgil Committee was that it was more environment-friendly and is not in tune with the ground realities.***

The Western Ghats

The Western Ghats are internationally recognized as a **region of immense global importance** for the conservation of biological diversity, besides containing areas of high geological, cultural and aesthetic values.

- ***The Western Ghats traverse six Indian states, i.e. Kerala, Tamil Nadu, Karnataka, Goa, Maharashtra and Gujarat.***
- These mountains cover an area of around 140,000 km² in a ***1,600 km long stretch that is interrupted only by the 30 km Palghat Gap.***
- It is one of the eight “hottest hot-spots” of biological diversity in the world.
- ***The Western Ghats was included as a ‘World Natural Heritage Site’ by UNESCO in 2012.***

The geology of Western Ghats

The Western Ghats are **the mountainous faulted and eroded edge of the Deccan Plateau.**

- Geologic evidence indicates that they **were formed during the break-up of the supercontinent of Gondwana some 150 million years ago.**
- Basalt is the predominant rock found in the hills reaching a thickness of 3 km. Other rock types found are charnockites, granite gneiss, khondalites, leptynites, metamorphic gneisses with detached occurrences of crystalline limestone, iron ore, dolerites and anorthosites.
- Residual laterite and bauxite ores are also found in the southern hills.

Why the Western Ghats are so important?

Western Ghats of India are **older than the great Himalayan mountain chain.** The Ghats **act as a key barrier**, intercepting the rain-laden monsoon winds that sweep in from the south-west during late summer.

- Western Ghats contains the exceptionally high level of biological diversity and endemism.
- The forests of the Western Ghats include **some of the best representatives of non-equatorial tropical evergreen forests in the world.**
- At least **325 globally threatened (IUCN Red Data List) species occur in the Western Ghats.**
- The **globally threatened flora and fauna** in the Western Ghats are represented by 229 plant species, 31 mammal species, 15 bird species, 43 amphibian species, 5 reptile species and 1 fish species.
- Of the total 325 globally threatened species in the Western Ghats, 129 are classified as Vulnerable, 145 as Endangered and 51 as Critically Endangered.

What are Ecologically Sensitive Zones (ESAs)?

The definition offered by the MoEF: *"An ecological sensitive area is a bio-climatic unit in the Western Ghats wherein human impacts have locally caused irreversible changes in the structure of biological communities and their natural habitats."*

- An **ecologically sensitive area is one that is protected by the government** given the sheer number of species, plants and animals endemic to the region.
- According to the **Environment (Protection) Act, 1986**, the government can prohibit industrial operations such as mining, sand quarrying and building thermal power plants in sensitive areas.
- **The Western Ghats were declared an ecological hotspot in 1988.**

Activities in ESZs

- **Prohibited activities:** Commercial mining, industries causing pollution, establishment of major hydroelectric projects (HEP), commercial use of wood, certain tourism activities, discharge of effluents or any solid waste or production of hazardous substances.
- **Regulated activities:** establishment of hotels and resorts, commercial use of natural water, erection of electrical cables, drastic change of agriculture system, pesticides, widening of roads, Felling of trees.
- **Permitted activities:** Ongoing agricultural or horticultural practices, rainwater harvesting, organic farming, use of renewable energy sources, and adoption of green technology for all activities.

What are the parameters of categorization?

To categorise an area as ecologically sensitive, the government looks at **topography, climate and rainfall, land use and land cover, roads and settlements, human population, biodiversity corridors and data of plants and animal species.**

Mains Questions:

The Western Ghats are internationally recognized as a region of immense global importance for the conservation of biological diversity, besides containing areas of high geological, cultural and aesthetic values. Given that, why environmentalists are worried about draft EIA notification, 2020? Discuss.



CHROME IAS

Giving Wings To Your Dreams !!!

IAS 2019 - FINAL SELECTIONS



RAVI JAIN
RANK 9



VISHAL TEJRAO
RANK 91



NAKUL RAJENDRA
RANK 489



AKSHAY DINKAR
RANK 704



SHRENIK LODHA
RANK 221



AMIT KUMAR
RANK 295



MRIDUL SINGH
RANK 401



ANANYA KIRTI
RANK 736



B RAHUL
RANK 272



VIKRAM SINGH
RANK 354



PRAVEEN PUSHKAR
RANK 454



SHUBHAM ASHOK
RANK 749

Our Programs:

**Mentorship
Programme**

**GS Mains
Test Series - 2020**

**GS Mains
Test Series - 2021**

**Ethics
Course**

53/5, First Floor, Bada Bazaar Marg, Old Rajinder Nagar, New Delhi - 110060

Mob.: 99903 56664 | 97737 32309 ✉ student@chromeias.com 🌐 www.chromeias.com