



**ANALOG IAS
INSTITUTE**



इशािक़्श

Comprehensive **NEWS** Analysis

**22-04-2019
To
28-04-2019
APRIL
Week - 04**

OUR TEAM

GENERAL STUDIES



Mr. KOUSHIK

Mr. PRANAY AGARWAL

Mr. CHETAN PRAKASH

Mr. NIKHIL SAREEN

Mr. RAVI TEJA

Mr. UDAY SIMHA

Mr. SIVA KUMAR

Mr. VIJAY

OPTIONALS



SOCIOLOGY
Mr. SAROJ SAMAL

Public Administration



MATHEMATICS
Mr. VINNAKOTA SRIKANTH



GEOGRAPHY
Mr. PRIYESH SINGH SENGAR

OTHER OPTIONALS

ANTHROPOLOGY

POLITICAL SCIENCE

TELUGU LITERATURE

HISTORY

Contents

Topic	Page No
Polity and Governance	1 - 11
1. Draft Indian Forest Act 2019: Dehumanizing Forests	
2. 50% local sourcing likely for companies to book EV ride under FAME-II	
3. Earth Day: saving the planet may cost \$100 billion per year	
4. SC directs Madras HC to decide plea against TikTok ban on April 24	
5. MCC and the role of EC	
6. Indian Army opens vacancies for women in military police	
7. Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001	
International Relations	12 - 17
8. Indian, US Navies hold anti-submarine warfare exercise	
9. India drops down on World Press Freedom Index	
10. Suspension of Cross-LoC Trade	
11. Iran, Pakistan Agree To Set Up Joint Border 'Reaction Force':	
12. US sanctions on Iran:	
Economy	18 - 24
13. Free Trade Mechanism	
14. RBI divest its share in NABARD	
15. Traders' Credit Card Scheme	
Geography and Environment	25 - 29
16. Face of Disasters 2019	
17. World immunization week 2019	
18. Emperor Penguin	
19. 2019 Monsoon Forecast	
Science and Technology	30 - 37
20. UAE's Hope Probe project bound for Mars is 85% complete	

21. Militarization and Weaponization of Outer Space
22. Mosquirix: World's first Malaria vaccine
23. Durgama Anchalare Malaria Nirakaran (DAMaN) initiative:
24. BepiColombo
25. Melamine

Miscellaneous

38 - 40

26. Garia puja
27. Indian bullfrogs
28. Active volcanoes of Indonesia
29. Traditional Knowledge Digital Library (TKDL)
30. Indonesia releases special stamp on Ramayana theme:

Polity and Governance

1. Draft Indian Forest Act 2019: Dehumanizing Forests

The Ministry of Environment, Forest and Climate Change (MoEF & CC) has released the draft of the comprehensive amendments to the Indian Forest Act, 1927 (IFA). However, the amendments have been criticized as an attempt by the central government to grab natural resources owned by tribals for generations.

About Indian Forest Act, 1927

- Britishers imposed the Indian Forest Act, 1927 to take over Indian forests, use them to produce timber, while curtailing and extinguishing rights of millions.
- The Act empowered the Government and the Forest Department to create Reserved Forests, and the right to use Reserved Forests for Government use alone.
- It defines what a forest offence is, what are the acts prohibited inside a Reserved Forest, and penalties leviable on violation of the provisions of the Act.
- But the law has been criticized for years for providing immense discretion and powers to the forest bureaucracy.
- Forest officials could govern areas declared as forestlands of different types and hence arrest and prosecute forest-dwellers.

Key features of 2019 amendments

- **Community:** It defines community as a group of persons (specified according to the government records) living in a specific area and jointly possesses/enjoy common property resources, irrespective of race, religion, caste, language, and culture.
- **Forest:** is defined to include, “any government or private or institutional land recorded or notified as forest/forest land, the lands managed by government/community as forest and mangroves, and also any land which the central or state government may by notification declare to be forest for the purpose of this Act.
- **Conservation:** It shifts the focus from transport and taxation of forest produce to conservation, enrichment and sustainable management of forest resources and related matters = safeguard ecological stability and address the concerns related to climate change and international commitments.
- **Role of state government:** If the state government feels that the rights under Forest Rights Act will affect conservation initiatives = the state may affect such rights by providing compensation or provide some other forest land of sufficient extent in a reasonable locality to the forest-dwelling communities.

- **Production forests:** The draft introduces a new category of forests named production forests for the purpose of production of timber, pulp, pulpwood, rosewood, non-timber forest produce, medicinal plants or any forest species in order to increase production in the country for a certain period.

Offence:

- Some offences that were earlier bailable have been proposed to be made non bailable.
- The responsibility of proving innocence in many cases has been left on the accused who are to be presumed guilty till proven otherwise.
- The accused has to prove that s/he is in lawful possession of forest land, forest produce, and has not committed any offence against the Act.

Protection:

- The draft law also proposes to provide immunity to Forest-officer using arms, etc. from legal actions in order to prevent the forest offence.
- This is in addition to the immunity provided under section 197 of the Code of Criminal Procedure 1973 for certain categories of Public Servant.
- The immunity under the draft forest law is higher than what other government officers are usually provided. It is similar to the one provided under laws imposed in conflict zones, like the Armed Forces Special Powers Act (AFSPA).
- Even state governments would not be allowed to grant permission for prosecution without first constituting an inquiry by an authority.

Collective punishment:

- The colonial provision of collective punishment of community for crimes committed by individual/s under the forest law has been retained.
- This applies for Fire is willfully caused or by negligence in a reserved forest.
- Theft of forest produce
- Grazing by cattle
- The State Government may then suspend the exercise of all rights of pasture or to forest-produce to all dwellers in the region, for a particular period.

Infrastructure:

- The State Government/UT Administration shall – Develop the infrastructure for standardized lock-up rooms for housing the accused. Provide for transportation of accused.
- Provide essential articles for holding the accused(s), armories, safe custody of arms, ammunition, etc.

The State/UT should provide these to the Forest-officers for enforcing the provisions of the Act in each forest division of the country within two years.

Bureaucratic control of forests: It strengthens the idea of bureaucratic control of forests by providing immunity for actions like the use of rearms by officers to prevent an offence. Thus the draft law largely retains as well as enhances the policing and quasi-judicial powers that forest officials enjoyed under the original act.

The hard-line policing approach:

- Is reflected in the focus on creating an infrastructure to detain and transport the accused and to penalize whole communities by denial of access to forests for offences committed by individuals.
- Such provisions affect poor inhabitants and run against the empowering and egalitarian goals under the Forest Rights Act.

Fuel extremism: The empowerment of forest bureaucracy may alienate tribal's and also fuel left-wing extremism (Naxals) in the central Indian region.

Arbitrary: The provision that the state governments could take away the rights of the forest dwellers in the name of conservation efforts is just arbitrary and running counter to the objectives of the Forest Rights Act.

Evaluation and scrutiny:

- For decades now, the Forest Department has resisted independent scientific evaluation of forest health and biodiversity conservation outcomes.
- Also, the environmental policy has weakened public scrutiny of decisions on diversion of forests for destructive activities.
- Further, the Impact assessment reports are mostly not taken seriously, and the public hearings process has been diluted.
- The draft law doesn't address but further increase such concerns.

Arguments in favor:

- Forest officials often argue that they remain the sole face of administration over these vast difficult-to-access terrains.
- They have the difficult responsibility of retaining the quality and extent of forest cover.
- This becomes particularly challenging due to high population pressure and development activities.
- It is in this context that the Centre proposes to increase forest officials' police powers as well as capacities over forestlands.

Way forward:

Prevent exploitation: According to the State of Forest Report 2017 by MoEFCC, the total forest and tree cover are 24.39% of the geographical

area of the country. However, only 2.99% of India's geographic area is classified as very dense forest which is a concern. Hence, all suitable landscapes should be recognized as forests and be insulated from commercial exploitation.

Collaborative conservation: The new law should expand India's forests and ensure the well-being of traditional forest-dwellers and biodiversity in these landscapes. Therefore, a community-led, scientifically proven conservation should happen in order to reduce conflicts, incentivize tribal's and stop diversion of forests for non-forest purposes.

Consultation with all stakeholders: The centre must consult all stakeholders and communities including independent scientific experts to ensure that the law is adopted by all states, including those that have their own versions of the existing act.

Indian forests play an important role in moderating the lives of Adivasis and other traditional dwellers, as well as everyone in the subcontinent. They have a wider impact with respect to climate and monsoons. Therefore, the proposed law should consider all these factors for sustainable expansion of Indian forests, rather than just terming the defenseless tribal's as encroachers and empowering the forest bureaucracy to shoot them which is inhumane and in violation of the rights provided under the constitution.

2. 50% local sourcing likely for companies to book EV ride under FAME-II

In news:

An inter-ministerial steering committee led by Niti Aayog chief executive officer has decided that only companies that meet the 50% localization threshold will be eligible for the incentives that will be available under the Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME-II) scheme.

About

- FAME is part of the government's two-pronged strategy to place India as a key driver in the global mobility revolution. The strategy is (a)boost domestic manufacturing by insisting on minimum of 50% local content in e-vehicles and (b)create massive size and scale for electric vehicles in the country to make the investments made in the sector viable.
- The FAME II is an expanded version of FAME I, launched in 2015 which aimed to support hybrid/electric vehicles market development and Manufacturing ecosystem.
- The FAME scheme is part of the National Electric Mobility Mission Plan (NEMMP).It aims to achieve national fuel security by promoting hybrid and electric vehicles in the country.

The main objectives of the scheme are

- a) Encourage faster adoption of Electric and hybrid vehicle by way of offering upfront Incentive on purchase of Electric vehicles and

- b) Establish necessary charging Infrastructure for electric vehicles.

The FAME II scheme will put emphasis on electrification of the public transportation that includes shared transport. Demand Incentives on operational expenditure model for electric buses will be delivered through State or city Transport Corporation.

3. Earth Day: saving the planet may cost \$100 billion per year

Context:

On the occasion of Earth Day 2019, several events and campaigns are being held worldwide. The Earth Day is an annual event celebrated on 22nd April.

- The theme for Earth Day 2019 is 'Protect Our Species'. It aims to draw attention to the rapid extinction of species across the world. The extinction of species is directly linked to human activity which causes climate change, deforestation and pollution.
- The Earth Day celebrates the earth's environment and raises public awareness about pollution. It was first celebrated in the year 1970. The idea of commemorating such a day was propounded by Gaylord Nelson, a US senator from Wisconsin.
- The activities on Earth Day are led and coordinated by Earth Day Network. It is a US based international environmental NGO and has presence in 195 countries.

Scientists have proposed a time-bound, science-based policy, titled "A Global Deal for Nature (GDN)", to save the diversity and abundance of life on Earth. The study has been published in the journal Science Advances.

- The policy's mission is to save the diversity and abundance of life on Earth—for the price tag of \$100 billion a year.
- The first major goal of GDN is to protect biodiversity by conserving at least 30% of the Earth's surface under the UN Convention on Biological Diversity by 2030. However, as much more of Earth's natural ecosystems need to be preserved or restored in order to avert impacts of global warming, GDN calls to protect another 20% of the Earth as Climate Stabilization Areas (CSAs).
- Secondly, GDN aims to mitigate climate change by conserving the Earth's natural carbon storehouses.
- Thirdly, it seeks to reduce major threats such as meeting 2050 world food demand by directing cropland expansion to degraded lands and reducing food waste; or reduce use of plastics or ecologically damaging toxins etc.
- Conservation scientists, environmental NGOs have urged governments to adopt the GDN as a companion commitment alongside the Paris Climate Agreement. The Paris agreement (2015), an international agreement seeks to combat climate change and accelerate the actions

and investments needed for a sustainable low carbon future.

- The GDN campaign is being driven by One Earth, an initiative of the Leonardo DiCaprio Foundation. The foundation seeks to organize support from international institutions, governments, and citizens globally to support ambitious conservation goals. One Earth has launched an online petition drive to build popular support for GDN.

4. SC directs Madras HC to decide plea against TikTok ban on April 24

In news:

The Supreme Court has asked the Madras High Court to hear and decide on April 24 a plea to lift its prohibition on TikTok. The SC has said that if the Madras high court fails to decide on the plea, then its ban order will be lifted.

- Tik Tok is an app that allows users to create and share short videos with special effects. The app was launched in 2018 and has around 120 million active users in India. The parent company of TikTok is China-based Byte Dance. The Indian operator and marketer of the app is Byte Dance Technology Pvt Ltd.
- Earlier in April, The Madras High Court directed the state authorities to prohibit downloading of Tik Tok app. It had also prohibited media from telecasting the videos made using the app. The court's decision was based on the grounds that that the app was inappropriate for children and exposed them to several dangers.
- The HC had taken cognizance of the fact that countries such as Indonesia and Bangladesh had banned Tik Tok. It had also asked the Centre whether an Act similar to the Children's Online Privacy Protection Act of the U.S. could be enacted. The US Act aims at preventing children from becoming victims of cyber and online crimes.
- Later, the Madras High Court did not accept the request of the Byte dance Technology Pvt Ltd to suspend the ban imposed. Byte dance had then approached the Supreme Court and had contended that HC order was passed without hearing them.
- The company has that the order was a violation of the right to free speech and expression as guaranteed by Article 19 (1) (a) of the Indian constitution.
- Further, it has been argued that the app is an intermediary as per Section 2(w) of the Information Technology (IT) Act. Thus, it cannot be held liable for actions of third parties on the platform. The company stated that the HC did not pay heed to the protection afforded to intermediaries under the Section 79 of the IT Act.

5. MCC and the role of EC

Context:

Recently, Election Commission of India (EC) admitted to the Supreme Court that it was “**toothless**”, and did not have enough powers to deal with inflammatory or divisive speeches in the election campaign.

Where does the EC derive its powers and what is its extent?

- **Article 324** says the superintendence, direction and control of all elections to Parliament, the State legislatures, and the offices of the President and Vice-President shall be vested in the EC.
- The Article has been interpreted by courts and by orders of the EC from time to time to mean that the power vested in it is plenary in nature.
- In other words, the EC can take any action it deems fit to ensure that elections and the election process are free and fair.

Has the EC always been a multi-member body?

- No, the Election Commission was a single Chief Election Commissioner for decades since the body was set up in 1950 based on the provisions of the Constitution.
- It was on October 16, 1989, that two more Election Commissioners were appointed to expand the panel's composition. Their tenure ended in 1990.
- Thereafter, two Election Commissioners were appointed in 1993. Since then, the EC has been a three-member panel, with a Chief Election Commissioner and two Election Commissioners.

How decisions are made and how are EC's different from CEC?

- Decision-making within the panel is by majority.
- While the CEC can only be removed in the manner set out for a Supreme Court judge, the other two Commissioners may be removed on the recommendation of the CEC.
- In 1995, the Supreme Court held that the Election Commissioners are on a par with the CEC and the latter is not superior in standing with the other Commissioners.
- The EC has been demanding that the protection and safeguards given to the CEC under the Constitution should also be extended to the other Election Commissioners.

What kind of control does the EC have over civil servants during an election?

- As the superintendence and control over all aspects of the election process is vested in the EC, it exercises direction and control over civil servants deployed for election-related work. This means that bureaucrats engaged in the administrative aspects of elections, including police officers with law and order duties, are also amenable to the EC's jurisdiction.

- This power enables the EC to monitor both the manner in which civil servants perform their election-related duties, and prevent activities which may be seen as partisan.
- The EC often cites its vast powers under Article 324 to transfer or suspend officials during election time, even though they normally come under the disciplinary purview of the government of India or the State governments. There have been instances of the EC transferring not only Returning Officers, but also Commissioners of Police and Superintendents of Police.

What are the possible actions it can take against candidates and parties?

- The EC monitors the adherence of political parties and candidates to the 'Model Code of Conduct'.
- If the violations are also offences under election law and the criminal law of the land, the EC has the power to recommend registration of cases against the offenders.
- However, for some violations — such as canvassing for votes during a period when electioneering is barred, making official announcements while the MCC is in force, and making appeal to voters on sectarian grounds — the EC has the power to advise or censure candidates, in addition to directing registration of cases.
- In some cases, as recent incidents would show, the EC may bar candidates or leaders from campaigning for specified periods.
- Asking individuals to leave a constituency or barring entry into certain areas are other powers that the EC may exercise. These powers are not necessarily traceable to any provision in law, but are generally considered inherent because of the sweeping and plenary nature of the EC's responsibility under the Constitution to ensure free and fair elections.
- Its powers extend to postponing elections to any constituency, cancelling an election already notified, and even to abrogate or annul an election already held.

What are the limitations of the EC's powers?

- The EC does not have the power to disqualify candidates who commit electoral malpractices. At best, it may direct the registration of a case.
- The EC also does not have the power to deregister any political party. However, the Constitution empowers the EC to decide whether a candidate has incurred disqualification by holding an office of profit under the appropriate government, or has been declared an insolvent, or acquired the citizenship of a foreign state.
- When a question arises whether a candidate has incurred any of these disqualifications, the President of India or Governor has to refer it to the EC. The poll panel's decision on this is binding.

6. Indian Army opens vacancies for women in military police

Context:

- In a first, the Indian Army has begun online registration of women for recruitment as soldiers into the military police.

The move comes three months after the Government announced that women would be inducted into the force in the “Personnel below Officer Rank” (PBOR) category in a graded manner to eventually comprise 20 percent of total Corps of Military Police.

- **Significance:**

So far, women were allowed in select areas such as medical, legal, educational, signals and engineering wings of the Army. The appointment of women in Military Police is a huge step towards further empowering women and improving their representation in the Indian armed forces.

Those appointed under Personnel Below Officer Rank (PBOR) are given the responsibilities to investigate offences such as rape, molestation and theft; serve military operations where the Army needs police assistance; assistance in evacuation of villages during cross-border hostilities; and ceremonial as well as policing duties.

- **Role of Military Police:**

The Military Police is responsible for preserving “good order and discipline and to prevent breaches of the same by persons serving in or attached to the regular Army”.

The role of the military police includes policing cantonments and Army establishments, preventing breach of rules and regulations by soldiers, maintaining movement of soldiers as well as logistics during peace and war, handling prisoners of war and extending aid to civil police when required.

Permanent commission of women officers in Indian Army:

Defence Ministry has already announced that women officers recruited into the armed forces under the Short Service Commission will now have the option of taking up Permanent Commission in the Indian Armed Forces.

7. Protection of Plant Varieties and Farmers’ Rights (PPV&FR) Act, 2001

Context:

A group of farmer organisations and civil society representatives upped the ante against PepsiCo India after the MNC filed lawsuits against four potato growers from Sabarkantha district for allegedly growing a variety of potato — FL 2027, also called FC5 — on which PepsiCo claimed exclusive rights by virtue of a Plant Variety Certificate (PVC) under the Protection of Plant Varieties and Farmers’ Rights (PPV&FR) Act, 2001.

What's the issue?

- PepsiCo India Holdings Pvt Ltd uses the registered variety of potatoes called FL 2027, which is a hybrid of FL 1867 and Wischip varieties, for manufacturing chips for its brand.
- The company is the registered breeder of FL 2027 under the Protection of Plant Varieties and Farmers' Rights Act, 2001. This entitles it to an exclusive right over the registered variety.
- Farmers are not authorised to grow this variety. By growing these potatoes without licence, the farmers in Gujarat are violating its statutory rights.

What next?

Nearly 200 civil society representatives and farm leaders have written to the Centre for intervention. Farmers groups are pointing out that the law allows them to grow and sell any variety of crop or even seed as long as they don't sell branded seed of registered varieties.

The Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001:

- Enacted by India in 2001 adopting sui generis system.
- It is in conformity with International Union for the Protection of New Varieties of Plants (UPOV), 1978.
- The legislation recognizes the contributions of both commercial plant breeders and farmers in plant breeding activity and also provides to implement TRIPs in a way that supports the specific socio-economic interests of all the stakeholders including private, public sectors and research institutions, as well as resource-constrained farmers.

Objectives of the PPV & FR Act, 2001:

- To establish an effective system for the protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new varieties of plants.
- To recognize and protect the rights of farmers in respect of their contributions made at any time in conserving, improving and making available plant genetic resources for the development of new plant varieties.
- To accelerate agricultural development in the country, protect plant breeders' rights; stimulate investment for research and development both in public & private sector for the development new of plant varieties.
- Facilitate the growth of seed industry in the country which will ensure the availability of high quality seeds and planting material to the farmers.

Rights under the Act:

Breeders' Rights: Breeders will have exclusive rights to produce, sell, market, distribute, import or export the protected variety. Breeder can appoint agent/ licensee and may exercise for civil remedy in case of infringement of rights.

Researchers' Rights: Researcher can use any of the registered variety under the Act for conducting experiment or research. This includes the use of a variety as an initial source of variety for the purpose of developing another variety but repeated use needs prior permission of the registered breeder.

Farmers' Rights:

- A farmer who has evolved or developed a new variety is entitled for registration and protection in like manner as a breeder of a variety;
- Farmers variety can also be registered as an extant variety;
- A farmer can save, use, sow, re-sow, exchange, share or sell his farm produce including seed of a variety protected under the PPV&FR Act, 2001 in the same manner as he was entitled before the coming into force of this Act provided farmer shall not be entitled to sell branded seed of a variety protected under the PPV&FR Act, 2001;
- Farmers are eligible for recognition and rewards for the conservation of Plant Genetic Resources of land races and wild relatives of economic plants;
- There is also a provision for compensation to the farmers for non-performance of variety under Section 39 (2) of the Act, 2001 and
- Farmer shall not be liable to pay any fee in any proceeding before the Authority or Registrar or the Tribunal or the High Court under the Act.

International Relations

8. Indian, US Navies hold anti-submarine warfare exercise

The Indian and U.S navies have held an anti-submarine warfare exercise. The exercise involved P-8A Poseidon maritime patrol aircraft and its Indian variant which is the P-8I Neptune advanced maritime patrol aircraft near Diego Garcia in the Indian Ocean. The aircraft were joined by the Arleigh Burke-class guided-missile destroyer USS Spruance.

The military exercise focused on

- a) Anti-submarine warfare training,
- b) Information sharing and
- c) Coordination between maritime patrol aircraft and surface combatants.

It was the first bilateral anti-submarine warfare exercise since the signing of a Communications, Compatibility and Security Agreement (COMCASA) between the two countries.

- COMCASA allows the U.S. military to transfer secure communications and data equipment to India. Prior to the conclusion of the agreement, the United States had to remove advanced communication equipment from all military platforms sold to India such as the P-8I Neptune.
- Additionally, the United States had to place less secure temporary systems on Indian units so the two sides could communicate during bilateral exercise.
- The P-8A/I is the military variant of Boeing's Next-Generation 737-800 commercial aircraft and is considered as one of the world's most advanced anti-submarine warfare aircraft currently in service.
- Further, the Indian version of the aircraft includes the Telephonics APS-143 Ocean Eye aft radar system and a cutting-edge magnetic anomaly detector which is not installed on U.S. Navy P-8A aircraft.

9. India drops down on World Press Freedom Index

In news:

World Press Freedom Index for the year 2019 has been released. In this year's index, Norway has been ranked first for the third year in a row followed by Finland.

- India has dropped two places on the index to be ranked at 140th out of 180 countries. India has fared poorly due to (a) violent attacks against journalists leading to at least six journalists being killed (b) alarming rate of coordinated hate campaigns against journalists.
- The index also says that hatred against journalists has degenerated into violence contributing to an increase in fear. The number of countries regarded as safe where journalists can work in complete

security continues to decline while authoritarian regimes continue to tighten their grip on the media.

- Further, South Asia features poorly on the index with Pakistan dropping three places to 142 and Bangladesh dropping four places to 150. At the bottom of the Index is Turkmenistan which has replaced North Korea.
- World Press Freedom Index is published every year since 2002 by Reporters without Borders (RSF). Reporters Sans Frontiers (RSF) or Reporters without Borders is a non-profit organization that works to document and combat attacks on journalists around the world.
- The Index ranks countries according to the level of freedom available to journalists. However, It does not rank based on government policies

10. Suspension of Cross-LoC Trade

Context

India has suspended cross LoC trade between Jammu & Kashmir and Pakistan-Occupied-Kashmir (PoK) with effect from April 19

Reason for suspension of cross-LoC trade

The orders for suspending LoC trade have been issued by the Home Ministry. Reasons listed by MHA are

- **Used by terrorist and separatist:** In few cases NIA found that a significant number of trading concerns engaged in LoC trade are being operated by persons closely associated with banned terrorist organizations involved in fuelling terrorism/separatism.
- **Used for drugs:** Cross-LoC trade is also being used as a regular channel of funnelling of drugs such as cocaine, brown sugar and heroin into the Valley, adversely impacting the youth
- **Under Invoicing and Infiltration of third-party goods:** It is being argued that the zero-tariff barter arrangement is being violated through under-invoicing and the exchange of third-party items such as U.S.-origin California almonds.
- **Illegal weapons and fake currency:** Route are allegedly used for supply of arms and fake currency notes to the Valley

Background

- India and Pakistan agreed to initiate trade across LoC in 2008 as a confidence building measures.
- LoC trade is meant to facilitate exchange of goods of common use between local populations across the LoC in Jammu & Kashmir.
- The trade is restricted to 21 items, all of which are products of primary produce.
- The trade is allowed through two Trade Facilitation Centres located at Salamabad, Uri, District Baramulla and Chakkan-da-Bagh, District Poonch.

- The trade takes place four days a week.
- The Trade is based on Barter system and zero duty basis.

Importance of LoC trade

- **Benefits to the local economies:** It is estimated that since the barter trade commenced along two routes across the LoC in October 2008 the volume of trade over the decade has crossed ¹ 6,000 crore.
- **Employment:** Trade has acted as a source of employment for the local traders, for the unemployed and vulnerable youth of the border areas.
- **Symbolic and political value of cross-LoC trade:** Economic integration across the Line of Control remains central to the conflict resolution process. It is considered very important for generating interest from people on both the sides of LoC.
- **Bottom-up approach to peace-building:** Trade has attracted divided families and some former combatants and provided a non-violent and alternative vision for change and conflict transformation
- **Spin effect:** The LoC passes not only through the regions of Jammu and Kashmir but also the Ladakh region. The success of Cross LoC trade in Kashmir region will enable opening of Kargil-Skardu route.

Issues with cross-LoC trade

- **Regional imbalance in the trade relations:** It is mainly on the Jammu side that trade is sustained. On the Kashmir side, it is a picture of dismal trade.
- **The security concerns:** There is overwhelming popular demand for expanding the cross-LoC, trade but it remains confined due to security concerns.
- **Infrastructure:** The infrastructural constraints allow only 1.5 metric ton per truckload. The small consignment offsets the profits due to handling, fuel, and other costs.
- **Barter Trade:** The duty-free trade still follows the medieval barter system. Even in Barter trade there is no guarantee of equal return and recovery of differential amounts from counterparts across the LOC.
- **GST:** Post GST, traders have to pay double taxation i.e. on goods exported to PoK and imported from Muzaffarabad.

Steps to be taken

Government of India has said that a stricter regulatory & enforcement mechanism is being worked out and will be put in place in consultation with various agencies. Central and State governments must take the necessary steps towards reforming trade and ensuring capacity building of traders. Steps that should be considered are

- Install scanners for scrutiny of vehicles carrying commodities across the LoC to contain smuggling

- Traders should be registered and license to trade should be forwarded only after intelligence report
- Government must assure traders security measure is meant for safety rather than to harass the traders.

Conclusion

Suspension of trade across LoC would further deteriorate relation with Pakistan as decision has been taken in the backdrop of the Pulwama terror attack and withdrawal of the most favoured nation (MFN) status.

The government must revisit regulatory framework sooner and start the trade. Along with this government must take necessary infrastructure and regulatory measure to expand the LoC trade.

Expansion of trade would help to build confidence between two nations and people across the border. The two governments need to lay down a clear road map for formalizing LoC trade and bringing it within the ambit of SAFTA. A clear direction would perhaps reduce the pain of adjustment and in the long term, lead to peaceful and prosperous economic relations between the two Kashmirs.

11. Iran, Pakistan Agree To Set Up Joint Border 'Reaction Force':

Context:

Iran and Pakistan have agreed to set up a joint border "reaction force" to counter terrorism.

Background:

The announcement comes following tensions between the two countries who have in recent months accused each other of not doing enough to stamp out militants allegedly sheltering across the border.



12. US sanctions on Iran:

Context:

The U.S. has decided that it will not renew exemptions from its sanctions for importing oil from Iran. The US will not issue any additional Significant Reduction Exceptions [SREs] to existing importers of Iranian oil. US has continued to apply maximum pressure on the Iranian regime until its leaders change their destructive behaviour, respect the rights of the Iranian people, and return to the negotiating table.

Impact on countries:

India, China and U.S. allies Japan, South Korea and Turkey will be the most impacted by the non-renewal of waivers. The other three currently

exempted countries — Italy, Greece and Taiwan — have already reduced their imports to zero.

Implications:

- High Costs on oil imports.
- The threat to oil shipments –Iran has threatened to shut down the Strait of Hormuz, a key channel for global oil shipments, which would further lead to inflationary trends, not just for oil but other commodities too.
- Any direct backlash from Iran for its decision will also jeopardise India's other interests in the country, including its considerable investment in the Chabahar port, which India is building as an alternative route for trade to Central Asia.
- **Current account deficit:** Higher crude oil prices will widen the trade deficit and current account deficit, given that the value of imports goes up with crude oil, and that the quantity imported tends to be sticky in general.
- **Rupee:** The currency could be impacted if the trade and current account deficits were to widen. An increase in the import bill will tend to put pressure on the rupee. The coefficient of correlation between the absolute value of exchange rate and Brent between April 1, 2019 and April 22, 2019 was high at 0.62, the data show.
- **Inflation:** There could be significant impact on inflation, given how crude oil prices move and the extent to which the government allows the pass-through to the consumer. Analysts do not expect a full pass-through until the elections are over. The crude oil price could be an important consideration when the Monetary Policy Committee meets for its bi-monthly meeting in June.
- **Fiscal impact:** There could be a two pronged impact on government finances — both on the revenue side and on the expenditure side. On the revenue side, higher oil prices mean more revenue for the states as tax is ad valorem; for the Centre, though, it may not materially impact the fiscal math as the duty rates are fixed.

What happens if India continues to import oil from Iran?

The U.S. has made it clear that Indian companies that continue to import oil from Iran would face severe **secondary sanctions**, including being taken out of the SWIFT international banking system and a freeze on dollar transactions and U.S. assets.

Background:

India had received six-month reprieve, from November 2018 to May 2019, from the U.S. in the form of sanctions waivers to import Iranian oil. India had also received the exemption to continue developing the Chabahar port.

What would this mean?

Caving under pressure- India's position is not very convincing. India has now decided to cave in to U.S. pressure on the issue less than a year after External Affairs Minister Sushma Swaraj said that India would recognise only UN sanctions, not "unilateral" ones.

Way ahead for India:

- **Alternative Energy Sources** – The government's focus is now on finding alternative sources of energy, and minimising the impact on the Indian market.

About India's Oil Import:

- India is the world's third-largest consumer of oil.
- With 85 per cent of its crude oil and 34 per cent of its natural gas requirements is being fulfilled by imports.

In 2016, India imported 215 million tonnes of crude oil and at 13 per cent, Iran stood third among India's biggest oil suppliers, after Saudi Arabia and Iraq at 18 per cent each.

Economy

13. Free Trade Mechanism

Context:

While India has significantly opened its trade frontiers, its policies of favoring domestic producers and businessman often lock horns with the proponents of free trade. The recent U.S. trade skirmish with India is one such example. The US has objected to India increasing import duties on electronic goods and wants India to reduce duties on U.S.-made motorcycles.

The current atmosphere warrants us to deeply analyze the free trade regimen and how it has the potential to impact the overall macro-economic situation in the country.

What is Free Trade?

- Free trade is a policy to eliminate discrimination against imports and exports. Buyers and sellers from different economies may voluntarily trade without a government applying tariffs, quotas, subsidies or prohibitions on goods and services.
- Politically, a free-trade policy may be the absence of any trade policies, so a government doesn't need to take specific action to promote free trade. This hands-off stance is referred to as "laissez-faire trade" or trade liberalization.
- However, governments with free-trade agreements do not necessarily abandon all control of import and export taxation. In modern international trade, few free trade agreements (FTAs) result in completely free trade.

Advantages and Philosophy

In a free-trade regime, both economies can experience faster growth rates. This exchange is no different from voluntary trade between neighbours, towns or states. Free trade enables companies to concentrate on manufacturing goods and services where they have a distinct comparative advantage.

The most basic philosophy behind the macro-economic case for free trade is that if each person would do only what he or she does better than everyone else and all would trade with each other, everyone's welfare will increase.

Proponents of Free trade claims that easy import of products from other countries increases consumer welfare. Consumers everywhere welcome a lowering of import barriers because it brings quality products at a very competitive price.

As established by Milton Friedman, a Nobel laureate that, in international trade, exports help companies and imports help citizens. Therefore, resistance to free trade does not come from consumers. Thus, any restriction

in free trade only serves the interest of few capitalist and is not in the larger interest of masses.

Challenges in Free Trade

While domestic businesses benefit from a diversified export market, they also suffer from greater competition, due to the removal of trade tariffs and inflows of cheap foreign goods. This weighs negatively on business profits of domestic companies and constraints business expansion.

It has also been found that tougher competitive pressure reduces the incentives for companies to implement proper labour standards and protect the environment as they look to cut down any additional expenditure.

Free trade can contribute to higher income inequality, especially in high-wage countries, as it promotes cheaper goods from low-wage countries which have been the case in many Asian nations such as China, India, Philippines, and Singapore etc. Also, owners of intellectual property would receive more of the income gains, since FTAs often protect patents and copyrights.

Growing trade flows often lead economies to focus more on export-led growth instead of consumption-led growth as companies emphasizes on producing goods that have demand in foreign markets having bigger purse instead of producing what is required in domestic market.

- Argument about consumers benefiting from easy imports cannot be called completely true as even for citizens to buy products they need income. Therefore, they need jobs that will provide them adequate incomes. Any government responsible for the welfare of its citizens has to be concerned about the growth of jobs in the country.
- More than a free trade regime what India needs is a good 'industrial policy' to accelerate the growth of domestic production, by building on its competitive advantages; and by developing those capabilities, it can compete with producers in countries that 'developed' earlier.
- It is no doubt that India has significantly benefited from liberalising of its economy whereby Indian consumers have access to variety of products from world over, it is also a stated fact that Indian manufacturing sector has remained a laggard and has not worked up to its potential.
- The manufacturing sector in India and China which began with comparable capabilities and similar footing in 1990, in less than three decades China has become 10 times larger than India's, and its capital goods production sector is 50 times larger.
- India's impressive GDP growth has not resulted in generating enough employment for India's large youth population. Whereas India's economy should have been a powerful job generator, the employment growth — the numbers of jobs created per unit of GDP growth — remains among the lowest in the world.

- It has become clear that employment is the most pressing issue for Indian citizens according to all economic surveys. Schemes to augment income of citizens such as through Universal Basic Incomes can only give temporary respite as given the population burden these schemes are not economically sustainable. Therefore, an ambitious 'Employment and Incomes Policy' must be the highest priority for all governments.
- While India looks to capture larger shares of global markets, India's own billion-plus citizens' economy can act as a stimulus for growth of millions of enterprises. If citizens earn more, they can spend more.
- The 'Employment and Incomes Policy' thus can guide the Industrial Policy to where investments are required, and also what is expected from those investments to produce more income-generating opportunities for young Indians.
- The scope of 'industry' should be broadened to include all sectors that can build on India's competitive advantages. For example, the tourism and hospitality industry, taking advantage of India's remarkable diversity of cultures and natural beauty, has the potential to support millions of small enterprises in all parts of the country.
- India can also build competitive advantage on its large numbers of trainable youth, and with digital technologies reach of small enterprises, manufacturing and services can be increased which will provide many domestic and export opportunities that India has so far not achieved.

Way Forward

The WTO, which constantly looks to reduce trade barriers, needs to overhaul its governance to promote the welfare of citizens in all countries, especially poorer ones, rather than lowering barriers to exports of companies in rich countries in the guise of free trade idealism.

Indian economists should focus on the fundamentals of economic growth — more opportunities to earn incomes from productive work with development of new capabilities.

A robust 'Incomes and Employment Policy', supported by an imaginative Industrial Policy, therefore can effectively guide India's trade policy which will have larger and far positive benefits than solely opening trading regime can provide.

14. RBI divest its share in NABARD

Context:

The Reserve Bank of India (RBI) has divested its entire stake in Nabard and National Housing Bank (NHB). The move is part of ending the cross-holding in regulatory institutions and follows the recommendation of the second Narasimham committee.

- The Committee on Banking Sector Reforms (Narasimham Committee II), inter-alia, observed that it is inconsistent with the principles of

effective supervision that the regulator is also an owner of a bank and this would require the Reserve Bank of India (RBI) to divest its holding in banks and financial institutions.

- With this divestment, the government now holds a 100 % stake in both these financial institutions. The current change in the capital structure of both the financial institutions was brought in by the Government of India through amendments to the NABARD Act, 1981 and the NHB Act, 1987 which were notified vide gazette notifications dated January 19, 2018, and March 29, 2018, respectively.

About NABARD

NABARD came into existence on 12 July 1982 by transferring the agricultural credit functions of RBI and refinance functions of the then Agricultural Refinance and Development Corporation (ARDC). It was dedicated to the service of the nation by the late Prime Minister Smt. Indira Gandhi on 05 November 1982. Set up with an initial capital of Rs.100 crore, its' paid up capital stood at Rs.10,580 crore as on 31 March 2018. Consequent to the revision in the composition of share capital between Government of India and RBI, NABARD today is fully owned by Government of India.

About National Housing Bank

- The Hon'ble Prime Minister of India, while presenting the Union Budget for 1987-88 on February 28, 1987 announced the decision to establish the National Housing Bank (NHB) as an apex level institution for housing finance. Following that, the National Housing Bank Bill (91 of 1987) providing the legislative framework for the establishment of NHB was passed by Parliament in the winter session of 1987 and with the assent of the Hon'ble President of India on December 23, 1987, became an Act of Parliament.
- The National Housing Policy, 1988 envisaged the setting up of NHB as the Apex level institution for housing.
- In pursuance of the above, NHB was set up on July 9, 1988 under the National Housing Bank Act, 1987.
- Reserve Bank of India contributed the entire paid-up capital.

Its Objectives are:

- To promote a sound, healthy, viable and cost effective housing finance system to cater to all segments of the population and to integrate the housing finance system with the overall financial system.
- To promote a network of dedicated housing finance institutions to adequately serve various regions and different income groups.
- To augment resources for the sector and channelize them for housing.
- To make housing credit more affordable.
- To regulate the activities of housing finance companies based on regulatory and supervisory authority derived under the Act.

- To encourage augmentation of supply of buildable land and also building materials for housing and to upgrade the housing stock in the country.
- To encourage public agencies to emerge as facilitators and suppliers of serviced land, for housing.

15. Traders' Credit Card Scheme

In a traders' convention held recently, Prime Minister Narendra Modi suggested bringing in a traders' credit card scheme.

- The traders' credit card scheme would be similar to the Kisan credit card scheme available to the farmers.
- Under this, loans as much as Rs 50 lakh would be made available to traders without any collateral whatsoever.

Background

- Many traders have faced a cash squeeze after the twin blows of demonetisation and the introduction of the GST.
- Resultantly, credit has become hard to come by.
- The scheme thus comes as an acknowledgement of this impact on small traders.
- It is thus necessary for the good of this particular sector as well the economy to ensure that credit flows more freely to the trading sector.

Pro's and Cons

- India has gotten credit mostly wrong over the past decades.
- The past decades have shown that loan melas, whether for the rural sector or for infrastructure, rarely achieve their ends.
- Ultimately, directed lending, especially collateral-free one, ends up stressing those banks that have been forced into making these loans.
- E.g. nationalisation of banks was originally justified by the need to force credit into "priority" sectors of the planned economy
- However, experiences show that when nationalised banks turn into tools of government policy, they fall into crisis in the medium to long term.
- Moreover, the idea of a collateral free credit is not advisable at this moment of the Indian financial sector.
- It's because the banks are yet to properly emerge from the current bad loans crisis.
- Infrastructure, construction, power, and commodities lending continue to remain stressed.
- Alongside this, government has already added some committed credit responsibilities such as the MUDRA loans.

- Notably, MUDRA loans have seen a leap in misuse of funds over the past financial year.
- So in many ways, the new trade credit scheme would add yet another source of bad loans to the banks' list of directives, causing further an economic slowdown.

Rise in Indian Exports

Recently-released data from the Ministry of Commerce and Industry shows growth in exports in India.

- India's goods exports picked up in March, 2019 boosted by the weaker rupee, despite a slowdown in global trade growth.
- Merchandise exports rose 11.02% to \$32.55 billion in March from a year earlier, the highest such growth for several months.
- Twenty of the 30 overall product lines saw an increase in exports, including chemicals, pharmaceuticals and petroleum products.
- Merchandise imports were up 1.44% to \$43.44 billion during the same period.
- Oil imports, the biggest item in the import bill, rose 5.55%, driven by a rise in Indian demand and increases in global crude prices.
- Total exports of goods and services were estimated at \$535.45 billion in the recently ended financial year, up 7.97% from a year earlier.
- The total imports are estimated at \$631.29 billion, up 8.48%.
- On a different note, trade numbers for 2018 showed India-China trade deficit falling by a significant \$10 billion.
- This is mainly because of a sizeable increase in exports by India.
- However, during the same period, there was a sharp rise in Hong Kong's export to India of the same goods that India was buying from China.

Concerns

- 2018-19 exports, in dollar terms, has come in as being marginally higher than in 2013-14, after long years of stagnation.
- However, exports measured as a proportion of GDP have not kept pace.
- The trade deficit in March 2019 was \$10.9 billion, which is \$1.3 billion more than in the previous month.
- Although exports grew in 2018-19, imports grew even more sharply.
- Thus the trade deficit for 2018-19 was over \$176 billion, compared to over \$161 billion in the previous year.

What is the welcome development?

- The "core" trade balance (removing oil and gold) showed a surplus and not a deficit for the first time since February 2014.

- It is perhaps too soon to declare that a five-year-long trend of weak core exports is over.
- But the recent development is worth noting and seems to suggest some scope in the sector.
- Notably, this has come despite the fact that many Southeast Asian competitor economies are dealing with sluggish export growth.

Driving factors

- Exports growth did contribute to the above development in trade deficit, but this is not the only factor.
- The government's effort to crack down on imports of electronic goods, often through the use of tariffs, has also played a role.
- Electronic goods imports went down for the second successive month in March, 2019.

Way Forward

- Exports - The prospects for exports look very challenging going forward.
- This is especially given the slowdown in global trade amid trade tensions between the U.S. and China.
- BoP - The recent numbers on trade are too soon to celebrate about a new and healthy balance of payments.
- This is because the basic vulnerabilities of India's economy on the external account have not been addressed.
- As and when crude oil imports increase once again, there is no doubt that the balance of payments will be correspondingly stressed.
- A strong revival of domestic demand would also raise both the oil and non-oil import bill sufficiently to make it difficult to finance.

Conclusion

- India imports over 80% of its crude oil. To not to be subjected to the associated vagaries, India has to ensure that growth in exports is sustainable.
- Government should make exports its top priority, as this sector also has a huge potential for creating jobs, the most pressing need now.
- Exports should be properly backed by procedures and reforms that ensure its stability and competitiveness.
- Reform of processes around the goods and services tax is also a key priority at this end.

Geography and Environment

16. Face of Disasters 2019

Context:

The Face of Disasters 2019 report was recently published by **Sustainable Environment and Ecological Development Society (SEEDS)**. The report released by SEEDS as part of its **25th anniversary**, analyses past trends, looking at disasters from a broader perspective to capture their varied facets.

Eight key areas have emerged that will be critical to consider as we look ahead, as per the report:

1. Water and the changing nature of disaster risk: A 'new normal' of rainfall variability is bringing challenges of too much and too little water, often in parallel.
2. No disaster is 'natural': Risks lurking under the radar slip through the cracks because they don't meet the idea of a 'natural disaster'.
3. The silent events: The disasters that go unseen leave those affected at even greater risk.
4. Land becomes water (and water becomes land): Changes to the coastline are already affecting livelihood sources and will be hotspots for vulnerability in the future.
5. The complexity of disaster impact: Beyond official 'damages', the long-term and uncaptured disaster impacts have life-changing consequences for affected communities.
6. The urban imperative: Risk is rapidly urbanising and will affect everyone.
7. Transformations in the third pole: Himalayan glaciers are melting, with serious implications for the whole region.
8. Planning for what you can't see: Earthquake risk is looming large under the radar, but are we prepared?

Concerns:

2019 will see unusual flooding, as well as heatwaves and drought that are already ongoing. A single mega-disaster can wipe out hard-won development gains and recurrent small-scale stresses keep vulnerable families in a cycle of poverty. While this multiple event pattern is repeated every year, only a few really capture the public attention. Other risks continue to intensify under the radar.

Need of the hour:

The complexity of disasters today requires a proactive and multi-pronged approach. Current trends are reinforcing that disasters have multiple facets and complexities. There is a clear need for comprehensive understanding of risks, and hyper-localized plans and allocation of resources to reduce them.

About SEEDS:

- SEEDS, a non profit voluntary organization, are a collective endeavor of young professionals drawn from development related fields. It originated as an informal group of likeminded persons, getting together for the purpose of creative research projects of academic interest.
- **Functions:** It is involved in research activities in Community Development, Disaster Management, Environmental Planning, Transport Planning, and Urban and Regional Planning. Activities are carried out on behalf of government, semi – government and international development agencies.

17. World immunization week 2019

According to the figures released by the World Health Organisation (WHO) during the ongoing immunisation week, worldwide 12.9 million infants — nearly 1 in 10 — did not receive any vaccination in 2016.

About:

- **When celebrated:** Celebrated in the last week of April.
- **Objective:** World Immunization Week aims to promote the use of vaccines to protect people of all ages against disease.
- **Theme:**
 - The theme of this year's campaign is Protected Together: Vaccines Work!
 - The campaign will celebrate Vaccine Heroes from around the world – from parents and community members to health workers and innovators – who help ensure we are all protected, at all ages, through the power of vaccines.



Global scenario of immunization:

- Worldwide 12.9 million infants — nearly 1 in 10 — did not receive any vaccination in 2016.
- Global vaccination coverage remains at 85%, with no significant changes during the past few years.
- An additional 1.5 million deaths could be avoided if global immunisation coverage improves.
- The positive trend has been the increasing uptake of new and underused vaccines. In 2017, the number of children immunised — 116.2 million — was the highest-ever reported.

- An estimated 169 million children missed out on the first dose of the measles vaccine between 2010 and 2017.

18. Emperor Penguin

According to a study by the British Antarctic Survey (BAS), Halley Bay colony in the Weddell Sea (Antarctica) – the second largest Emperor penguin colony in the world – has suffered a “catastrophic” breeding failure after nearly all chicks born over three years died as their icy Antarctic habitat shrinks.

About:

- **Common Name:** Emperor Penguin.
- **Scientific Name:** *Aptenodytes forsteri*.
- **IUCN Status:** Near threatened.
- **Distribution:** They are endemic to Antarctica. They have a circumpolar distribution in the Antarctic almost exclusively between the 66° and 77° south latitudes.

Features:

- It is the tallest and heaviest of all living penguin species.
- Feathers of the head and back are black and sharply delineated from the white belly, pale-yellow breast and bright-yellow ear patches.
- Like all penguins it is flightless with wings stiffened and flattened into flippers for a marine habitat.

Breeding:

- They breed during the Antarctic winter. For breeding they trek 50–120 km over the ice to breeding colonies located at Cape Washington, Coulman Island in Victoria Land, Halley, Cape Colbeck, and Dibble Glacier.
- The female lays a single egg, which is incubated for just over two months by the male while the female returns to the sea to feed.

19. 2019 Monsoon Forecast

Context

The India Meteorological Department (IMD) recently released the monsoon forecast for 2019, and expects a “normal” monsoon rains.

Highlights

- Monsoon rains in India is forecast to be 96% of the Long Period Average (LPA) and thus likely to be “normal” this year.
- This is a more optimistic assessment from the one by private weather forecasting agency, Skymet, that warned of ‘below normal’ rains in June-September.

- However, uncertainty prevails as last year the IMD's April forecast indicated normal monsoon rains but India saw below normal rainfall (91% of LPA).
- The IMD issues its first monsoon forecast in April and then updates it in June.

Supporting Findings

- The IMD's optimism is based on global climate models projecting a 'weakening El Nino.'
- The El Nino, a cyclic warming of the Central and Eastern Pacific region, has historically been linked to a weakening of monsoon rain.
- A temperature rise greater than 1°C for 3 months is considered a 'strong' El Nino and a threat to the monsoon.
- A 0.5°C-1°C rise is called weak El Nino conditions; currently the El Nino is 0.9 C.
- The IMD's models in March, expect the El Nino to peak around May and then recede for the rest of the monsoon months.
- Globally too, other models expect El Nino to recede after June or July.
- All these suggest the possibilities of a normal as opposed to below normal monsoon rains in India this year.
- Another factor, called a positive Indian Ocean Dipole (IOD) (warming in the western Arabian ocean) could neutralise the potential negative impact from the El Nino.

Calculation of Monsoon Level

- The India Meteorological Department (IMD) expresses the projected rainfall in terms of Long Period Average (LPA).
- The LPA is the average rainfall recorded during the months from June to September, calculated during the 50-year period from 1951 to 2000.
- LPA is kept as a benchmark while forecasting the quantitative rainfall for the monsoon season every year.
- The LPA of the monsoon season over the entire country is 89 cm.
- Like the countrywide figure, IMD maintains an independent LPA for every homogeneous region of the country.
- E.g. 143.83 cm, 97.55 cm, 71.61 cm, and 61.5 cm for East and Northeast India, Central India, South Peninsular India, and Northwest India respectively.
- Going by this, IMD maintains five rainfall distribution categories on an all-India scale. These are:
 - **Normal or Near Normal** - when there is +/-10% departure of actual rainfall i.e. between 96-104% of LPA
 - **Below normal** - when departure of actual rainfall is less than 10% of LPA i.e. 90-96% of LPA

- **Above normal** - when actual rainfall is 104-110% of LPA
- **Deficient** - when departure of actual rainfall is less than 90% of LPA
- **Excess** - when departure of actual rainfall is more than 110% of LPA

About IMD

India Meteorological Department (IMD)

The IMD is the national meteorological service of the country and it is the chief government agency dealing in everything related to meteorology, seismology and associated subjects. It was formed in 1875. The IMD is under the Ministry of Earth Sciences, Government of India.

IMD Mandate

- Taking meteorological observations and providing current information and forecasting information for the most favorable operation of weather-dependent activities such as irrigation, agriculture, aviation, shipping, offshore oil exploration and so on.
- Offering warning against severe weather phenomenon such as tropical cyclones, dust storms, norwesters, heat waves, cold waves, heavy rains, heavy snow, etc.
- Providing met-related statistics needed for agriculture, industries, water resources management, oil exploration, and any other strategically important activities for the country.
- Engaging in research in meteorology and allied subjects.
- Detection and location of earthquakes and evaluation of seismicity in various parts of the country for developmental projects.

Science and Technology

20. UAE's Hope Probe project bound for Mars is 85% complete

In news:

The UAE Space Agency and Mohammed bin Rashid Space Centre has announced that 85% of the Hope Probe project has been completed.

About the mission

- Hope mission is a Space mission by UAE which has planned to send an unmanned probe to orbit Mars by 2021. It will become the first Arab Country to do so.
- The Hope Mars Mission is also called as Emirates Mars Mission. The launching of the spacecraft is going to coincide with the 50th anniversary of the founding of the UAE.
- The Hope probe mission will cover all aspects that have not been previously covered whether scientific or knowledge-based. It will work on drawing a clear and comprehensive picture of the Martian climate and the causes of the corrosion of its surface that has made it impossible for water to exist on the planet.
- The project will also provide insights about the weather on the Mars. It will observe weather phenomena such as dust storms and changes in temperature and how the atmosphere interacts with topography, from the highest volcano peaks to ice sheets to the vast deserts and the deepest canyons.

21. Militarization and Weaponization of Outer Space

Context

After the ASAT test, India expects to play a role in the future in the drafting of international law on prevention of an arms race in outer space in its capacity as a major space faring nation with proven space technology.

Weaponization of outer space:

- The weaponization of space includes placing weapons in outer space or on heavenly bodies as well as creating weapons that will transit outer space or simply travel from Earth to attack or destroy targets in space. Examples include the placing of orbital or suborbital satellites with the intention of attacking enemy satellites
- The weaponization of space is different from the militarization of space, which includes using space-based assets for C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance).
- The militarization of space assists armies on the conventional battlefield, whereas via the weaponization of space, outer space itself emerges as the battleground, sometimes referred to as the "fourth frontier of war."

International effort to control weaponization of space

Although no comprehensive treaty about space weapons is in effect, a legal framework does exist. Though India, China and Russia have advocated the need for formulating a comprehensive treaty for preventing outer space from becoming a domain for testing destructive devices, USA has refused to be a part of such a treaty. Some relevant international treaties that address aspects of the space weapons issue are

1. **Outer Space Treaty, 1967:** The Outer Space Treaty prohibits only weapons of mass destruction in outer space, not ordinary weapons.

Outer Space Treaty, 1967 includes the following principles:

- The exploration and use of outer space shall be carried out for the benefit and in the interests of all countries and shall be the province of all mankind;
 - Outer space shall be free for exploration and use by all States;
 - Outer space is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means;
 - States shall not place nuclear weapons or other weapons of mass destruction in orbit or on celestial bodies or station them in outer space in any other manner;
 - The Moon and other celestial bodies shall be used exclusively for peaceful purposes;
 - Astronauts shall be regarded as the envoys of mankind;
 - States shall be responsible for national space activities whether carried out by governmental or non-governmental activities;
 - States shall be liable for damage caused by their space objects; and
 - States shall avoid harmful contamination of space and celestial bodies.
2. **Limited Test Ban Treaty of 1963:** It prohibits nuclear tests and any other nuclear explosions in the atmosphere or outer space
 3. **Astronauts Rescue Agreement of 1968:** It requires the safe return of astronauts and objects launched into space to their country of origin;
 4. **Liability Convention of 1972:** It establish procedures for determining the liability of a state that damages or destroys space objects of another state;
 5. **Registration Convention of 1976:** It requires the registration of objects launched into space
 6. **Moon Agreement of 1984:** It took the first steps to establish a regime for exploiting the natural resources of space.

India's Traditional Position on Space Militarization

- India's traditional policy was to oppose any indication of militarization of space, including criticizing programs such as missile defence and ASAT programs.

- India has repeatedly sought a ban on space weapons at the UN and other international for such as the Conference on Disarmament (CD).
- Much of this criticism was related to what were perceived as weaponization of space or to active use of space technologies for military purposes in missile defense and ASAT programs rather than to the passive use of space for purposes such as surveillance or communication, even for military purposes. India is a party to all the major international treaties relating to Outer Space. India already implements a number of Transparency and Confidence Building Measures (TCBMs) such as

India is a party to all the major international treaties relating to Outer Space. India already implements a number of Transparency and Confidence Building Measures (TCBMs) such as

- India is signatory to Outer Space Treaty, 1967 and ratified it in 1982. The Outer Space Treaty prohibits only weapons of mass destruction in outer space, not ordinary weapons.
- India supported UNGA resolution 69/32 on No First Placement of Weapons on Outer Space
- India supports the substantive consideration of the issue of Prevention of an Arms Race in Outer Space (PAROS) in the Conference on Disarmament where it has been on the agenda since 1982.
- India register space objects with the UN register and follow pre-launch notifications measures in harmony with the UN Space Mitigation Guidelines,
- Participate in Inter Agency Space Debris Coordination (IADC) activities with regard to space debris management,
- Part of SOPA (Space Object Proximity Awareness and COLA (Collision Avoidance)

Analysis and numerous international cooperation activities, including hosting the UN affiliated Centre for Space and Science Technology Education in Asia and Pacific.

- Although, the use of space technology for national development has been part of Indian policy, driven by a deep-seated sense of the importance of exploiting space for national development.
- India launched Integrated Guided Missile Development Program (IGMDP), a more structural civil-military linkage in India's space program
- The Chinese ASAT test in 2007 aggravated India's security concerns and catalyzed the establishment of an Integrated Space Cell within the Ministry of Defense.
- India now joins the select quartet of countries in the world possessing the ability to project hard power in space along with the United States, Russia, and China.

Way forward

There is no global regulatory regime to address the growing militarisation in space which compels India to develop deterrence for the security of its space-based assets. Anti-satellite technology has so far been in the hands of very few countries: United States, Russia and China. The acquisition and demonstration of this technology make India a member of an elite group of countries.

India expects to play a role in the future in the drafting of international law on prevention of an arms race in outer space including inter alia on the prevention of the placement of weapons in outer space in its capacity as a major space faring nation with proven space technology. India was not considered a nuclear weapons state during Non-proliferation treaty because it did not test before January 1968.

Along with international law, there is need of separation between civilian and military use of outer space, international co-operation, free exchange of ideas across borders and import of technologies and products to bring transparency and to build confidence among nations.

22. Mosquirix: World's first Malaria vaccine

Context:

African Nation, Malawi will be undertaking large scale pilot tests for the world's most advanced experimental malaria vaccine in a bid to prevent the disease. The vaccine has been recommended by WHO for pilot introduction in selected areas of 3 African countries- Ghana, Kenya and Malawi.

About Malaria:

- Caused by the **infectious Plasmodium**
- **Spread:** Female Anopheles mosquitoes deposit parasite sporozoites into the skin of a human host.
- Malaria is a leading cause of human morbidity and mortality. Despite huge progress in tackling the disease, there are still 212 million new cases of malaria and 430,000 malaria-related deaths worldwide each year according to the World Health Organization (WHO). Most cases (80%) and deaths (90%) were in sub-Saharan African.

World's first vaccine against a parasitic disease: Mosquirix:

- RTS,S, known by its trade name Mosquirix, uses antibodies to target proteins presented by sporozoites (such as the circumsporozoite protein of falciparum) to enhance the immune system and help prevent the parasite from infecting the liver.
- Mosquirix is also engineered using a hepatitis B viral protein and a chemical adjuvant to further boost the immune response for enhanced effectiveness.

India's efforts in this regard:

- India's progress in fighting malaria is an outcome of concerted efforts to ensure that its malaria programme is country-owned and country-led, even as it is in alignment with globally accepted strategies.
- At the East Asia Summit in 2015, India pledged to eliminate the disease by 2030.

Following this public declaration, India launched the five-year National Strategic Plan for Malaria Elimination. This marked a shift in focus from malaria "control" to "elimination". The plan provides a roadmap to achieve the target of ending malaria in 571 districts out of India's 678 districts by 2022.

23. Durgama Anchalare Malaria Nirakaran (DAMaN) initiative:

- Among states, Odisha's Durgama Anchalare Malaria Nirakaran (DAMaN) initiative is significant.
- The initiative aims to deliver services to the most inaccessible and hardest hit people of the State. The initiative has in-built innovative strategies to combat asymptomatic malaria.
- The programme is jointly implemented by Indian Council of Medical Research-National Institute of Malaria Research (ICMR-NIMR), National Vector Borne Disease Control Programme (NVBDCP), Odisha and Medicines for Malaria Venture (MMV).

24. BepiColombo**Context:**

Following a series of tests conducted in space over the past five months, **the ESA-JAXA Bepi Colombo mission** has successfully completed its near-Earth commissioning phase and is now ready for the operations that will take place during the cruise and, eventually, for its scientific investigations at Mercury.

About BepiColombo:

BepiColombo is a joint mission between ESA and the Japan Aerospace Exploration Agency (JAXA), executed under ESA leadership.

The mission comprises two spacecraft: the Mercury Planetary Orbiter (MPO) and the Mercury Magnetospheric Orbiter (MMO). The MPO will study the surface and internal composition of the planet and the MMO will study Mercury's magnetosphere, that is, the region of space around the planet that is influenced by its magnetic field.

Need: The scientific interest in going to Mercury lies in the valuable information that such a mission can provide to enhance our understanding of the planet itself as well as the formation of our Solar System; information which cannot be obtained with observations made from Earth.



Challenges: Europe's space scientists have identified the mission as one of the most challenging long-term planetary projects, because Mercury's proximity to the Sun makes it difficult for a spacecraft to reach the planet and to survive in the harsh environment found there.

Significance: Mercury is a poorly explored planet. So far, only two spacecraft have visited the planet: NASA's Mariner 10, which flew past three times in 1974–5 and returned the first close-up images of the planet, and NASA's MESSENGER spacecraft, which performed three flybys (two in 2008 and one in 2009) before entering orbit around the planet in March 2011. The information obtained when BepiColombo arrives will throw light not only on the composition and history of Mercury, but also on the history and formation of the inner planets in general, including Earth.

25. Melamine

Context:

The government has extended the ban on import of milk and its products, including chocolates, from China till laboratories at ports for testing presence of toxic chemical melamine are upgraded.

Background:

Food regulator FSSAI had recommended extending the ban until all labs at ports are modernised to test the chemical. The ban was first imposed in September 2008 and extended subsequently from time to time.

Key facts:

- **India is the world's largest producer and consumer of milk.** It produces around 150 million tonne milk annually.
- **Uttar Pradesh is the leading state in milk production** followed by Rajasthan and Gujarat.
- **Although India does not import milk**, milk products from China, it has imposed the ban as a preventive measure.



What is melamine?

Melamine is an organic base chemical most commonly found in the form of white crystals rich in nitrogen.

What is melamine generally used for?

Melamine is widely used in plastics, adhesives, countertops, dishware, and whiteboards.

Why melamine is added into milk and powdered infant formula?

- In China, where adulteration has occurred, water has been added to raw milk to increase its volume.
- As a result of this dilution the milk has a lower protein concentration. Companies using the milk for further production (e.g. of powdered infant formula) normally check the protein level through a test measuring nitrogen content.
- The addition of melamine increases the nitrogen content of the milk and therefore its apparent protein content.
- Addition of melamine into food is not approved by the FAO/WHO Codex Alimentarius (food standard commission), or by any national authorities.

Has melamine been found in other food products?

- In 2007, melamine was found in wheat gluten and rice protein concentrate exported from China and used in the manufacture of pet food in the United States. This caused the death of a large number of dogs and cats due to kidney failure.
- Melamine contamination has also been found in a number of different brands of powdered infant formula, in one brand of a frozen yogurt

dessert and in one brand of canned coffee drink. All these products were most probably manufactured using ingredients made from melamine-contaminated milk.

What are the health effects of melamine consumptions in humans?

- While there are no direct human studies on the effect of melamine data from animal studies can be used to predict adverse health effects. Melamine alone causes bladder stones in animal tests. When combined with cyanuric acid, which may also be present in melamine powder, melamine can form crystals that can give rise to kidney stones.
- Melamine has also been shown to have carcinogenic effects in animals in certain circumstances, but there is insufficient evidence to make a judgment on carcinogenic risk in humans.

Miscellaneous

26. Garia puja

Why in news?

Garia festival is an important festival for the Tripuri tribal community in the state of Tripura. This year's Garia puja was held on 21 April 2019.

About:

- The Garia Puja is usually held from the beginning of the last day of the month of Chaitra till the seventh day of the month of April (Vaishakha).
- The rituals which are held during this festival are the bamboo pole that symbolizes the Lord Garia is worshipped with flowers and garlands.
- Further, the main ingredients with which the Garia Puja is conducted are cotton thread, rice, richa, chicken, rice beer, wine, earthen pots, eggs and wine. The chicken is sacrificed before the deity and the blood of the chicken is strewn before the Lord to get his blessing.
- The puja is followed by traditional dance derived from the Garia dance or the dance of Shiva and other cultural activities. The Garia dance is very popular among the Tripuris and the Reangs community.

27. Indian bullfrogs

Context:

A study has found that the Indian bullfrogs introduced in the Andaman Islands are invasive, and eat native wildlife including fish and lizards.

About Indian Bullfrog:

- The Indian bullfrog (*Hoplobatrachus tigerinus*) is native to the Indian subcontinent. It is a large species of frog found in mainland Myanmar, Bangladesh, India, Pakistan, Afghanistan, and Nepal.
- Other names: Indus Valley bullfrog, Asia bullfrog.
- The bullfrogs are prolific breeders: they have short breeding seasons, and each egg clutch can contain up to 5,750 eggs.
- Its tadpoles are carnivorous and eat other tadpoles, including their own species.
- They prefer freshwater wetlands and aquatic habitats. Generally they avoid coastal and forest areas.

28. Active volcanoes of Indonesia

Why in News?

The active volcano of Indonesia Mount Agung has erupted again. Two other volcanoes Mount Bromo in East Java and Mount Merapi in Yogyakarta also continues to erupt.

- **Mount Agung:** Mount Agung is an active volcano in Bali of Indonesia.
- **Mount Bromo:** Mount Bromo is an active volcano and part of the Tengger massif, in East Java, Indonesia.
- **Mount Merapi:** Mount Merapi is an active volcano located on the border between Central Java and Yogyakarta provinces, Indonesia.

29. Traditional Knowledge Digital Library (TKDL)

Context:

- AYUSH ministry and the Council of Scientific and Industrial Research (CSIR), New Delhi will collaborate in research and education in areas of traditional systems of medicine and its integration with modern science.
- This is not the first collaboration of the two organizations. CSIR and the Department of AYUSH (now Ministry) developed the Traditional Knowledge Digital Library (TKDL).

About TKDL:

- The Traditional Knowledge Digital Library (TKDL) is an Indian digital knowledge repository of the traditional knowledge, especially about medicinal plants and formulations used in Indian systems of medicine.
- Set up in 2001, as collaboration between the Council of Scientific and Industrial Research (CSIR) and the MINISTRY OF AYUSH.
- Objective of the library is to protect the ancient and traditional knowledge of the country from exploitation through biopiracy and unethical patents, by documenting it electronically and classifying it as per international patent classification systems.
- Apart from that, the non-patent database servers to foster modern research based on traditional knowledge, as it simplifies access to this vast knowledge of remedies or practices.

The TKDL contains documentation of publicly available traditional knowledge (TK) that:

- Relates to Ayurveda, Unani, Siddha and Yoga
- Is in digitized format
- Is available in five languages: English, German, French, Japanese and Spanish.

The TKDL:

- Seeks to prevent the granting of patents for products developed utilizing TK where there has been little, if any, inventive step
- Intends to act as a bridge between information recorded in ancient Sanskrit and patent examiners (with its database containing information in a language and format understandable to patent examiners)

- Facilitates access to information not easily available to patent examiners, thereby minimizing the possibility that patents could be granted for “inventions” involving only minor or insignificant modifications.

30. Indonesia releases special stamp on Ramayana theme:

Context:

- Indonesia has released a special commemorative stamp on the theme of Ramayana to mark the 70th anniversary of establishment of its diplomatic ties with India. A specially signed version of the stamp will be on display at the Philately Museum in Jakarta.





Abhyasa Program Structure

	Multiple Choice Questions (PRELIMS)	Descriptive Questions (MAINS)	Total Marks
Daily Test	10 (10*1 = 10 marks)	1 (1*10= 10 Marks)	20
Weekly Test	20 (20*1 = 20 marks)	2 (2*10= 20 Marks)	40
Fortnightly Test	30 (30*1 = 30 marks)	3 (3*10= 30 Marks)	60
Monthly Test	50 (50*1 = 50 marks)	5 (5*10= 50 Marks)	100
3 Months Test	100 (100*1 = 100 marks)	10 (10*10= 100 Marks)	200
Total Questions	4250+	500+	



To know more, scan this QR Code and watch video.



Subscribe to our youtube channel
www.youtube.com/analogiasacademy

OUR BRANCHES

Hyderabad : Indira Park

Domalguda

Ph: 040-27620440, +91 991 244 1137

Email: ias.analog@gmail.com

Hyderabad : Madhapur

100 Ft Road, Ayyappa Society,

Ph: 040-48522831, +91 990 856 4438

Email : ias.analog@gmail.com

Vizag : Dwaraka Nagar

Office-3, 3rd Floor, GK Towers,

Ph: 0891- 2546686, +91 998 513 6789

Email : ias.analogvizag@gmail.com

Hyderabad : Ashok Nagar

Above OBC Bank

Ph: 8121046686, +91 991 244 1138

Email : ias.analog@gmail.com

New Delhi : Old Rajinder Nagar

57/12, Third Floor,

Ph : 011- 49785868, +91 880 028 3132

Email : ias.analog.delhi@gmail.com

Guntur : Arundalpet

2nd Floor, Eluri Mansion 2/1,

Ph: +91 996 335 6789

Email : ias.analog.guntur@gmail.com

OUR RESULTS - 2017

62



Fathima Zeba
HT No : 786820

83



Srivastava
HT No : 29379

100



Mourya
HT No : 255748

105



Mishra
HT No : 262146

144



149



187



295



296



360



412



417



474



480



548



614



673



713



726



758



761



765



768



769



828



832



872



886

