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Comprehensive **NEWS** Analysis

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To
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JANUARY
Week - 02**

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Polity and Governance

1. Defence manufacturing rules eased

Why in news?

The government issued a notification last week simplifying the process for approval of manufacturing of a range of defence and aerospace equipment and components by private industry, by bringing them under the licensing authority of the Department of Industrial Policy and Promotion (DIPP).

The notification was issued as a press note dated January 1 by the DIPP, which is under the Ministry of Commerce and Industry.

Important Facts:

- It is to be done by bringing them under the licensing authority of the Department of Industrial Policy and Promotion (DIPP).
- Items are listed in three categories — defence aircraft, warships of all kinds, and allied items of defence equipment.
- The most significant aspect is that warships of all kinds, surface and sub-surface, have been included in the listing
- The industrial licensing has been terminated for 'parts and components of the equipment' which would benefit the small and medium enterprises (SMEs).
- New notification, supersedes DIPP's earlier press note of June 2014 segregates defence items in two categories covered by two different Acts — the Industries (Development and Regulation) Act, 1951, and the Arms Act, 1959.

Significance:

- Move is expected to help foreign Original Equipment Manufacturers (OEM) looking for partnerships with the private sector.
- The Defence Ministry has also formulated an ambitious Strategic Partnership (SP) model under the Defence Procurement Procedure (DPP), covering four specific areas to promote role of private sector in defence manufacturing.

2. MPs' panel proposes legal status for SSC

Why in news?

Statutory status to the Staff Selection Commission (SSC) recommended by Parliamentary Committee.

Important Facts:

- The Union Public Service Commission (UPSC) and all State Public Service Commission's either have constitutional however the SSC is the only such organisation that performs similar functions does not enjoy statutory status.

- The SSC was created to ease the burden of the UPSC by taking over the recruitment for posts below the Group 'A' level

Why there is a Demand:

- The workload and responsibilities of the SSC have increased and it has remained an "attached body" under the Department of Personnel and Training (DoPT), and has to depend entirely on the government for all its needs, with no autonomy.
- There has been a phenomenal increase in the workload of the SSC, from 9.94 lakh candidates in 2008-09 to over 2 crores in 2016-17.
- Further the SSC would be conducting the Common Eligibility Test at three levels – Matriculation, Higher Secondary and Graduation and would attract around 5 crore candidates, making it the largest examination in the world

Expected outcome:

- Greater functional autonomy.
- Faster decision-making and efficiency in the overall performance and delivery of results by the SSC in the recruitment process.

3. West Bengal tribals battling food scarcity: study

Why in news?

Food scarcity caused death of seven persons from a tribal community in West Bengal.

Important Facts:

- The study titled 'An Inquiry into the world of the Adivasis of West Bengal', has identified "food scarcity in varying degrees" in about 31% of tribal households in West Bengal.
- West Bengal is home to a over five million tribals, with 6% of the India's tribal population of 100 million but tribals in Bengal far behind in terms of human development.

Issues reported in study:

- Degradation of forest and environmental degradation are one of the main reasons for "reduced availability of natural nutrients" resulting in early deaths.
- Some households facing acute hunger only in some months (August–October)
- The work participation rate is higher among the Adivasis in Bengal forcing the children of school going age to discontinue their studies in order to fend for themselves and support the families.
- However, a higher rate of work participation has not contributed to a better living standard.

- Moreover, 44% of households do not have access to toilets and nearly two-thirds of the households had no drainage system.

Important Tribes of West Bengal:

- **SANTHALS** – They are the third largest tribal community in India and are distributed mostly in the states of West Bengal, Bihar, Orissa, Tripura, Jharkhand and Assam
 - They waged war against the Permanent Settlement of Lord Cornwallis in 1855.
- **ORAON** – In West Bengal they are distributed in the districts of Jalpaiguri, Midnapur and 24 Parganas. They also called themselves Kurukh
 - A socio-religious movement was initiated by the Oraon which is known as tana Bhagat Movement (1913-1914).
- **MUNDA** – In West Bengal, they are also known as Manki, they are highly respected from the time of pre independence of India. Birsa munda is the most respected person who turned into a prophet and was a freedom fighter in the Indian Independence struggle.
- **BHUMIJ** – According to Risley (1891), the term Bhumij means „Sons of the Soil . They are described as a hinduized section of Munda and are concentrated in the districts of Midnapur, Purulia, Bankura, and 24 Parganas of West Bengal.

4. The feminisation of Indian politics is an exciting phenomenon of our time

Why in news?

Study shows women legislators in India raise economic performance in their constituencies by about 1.8 percentage points per year more than male legislators.

Important Facts:

- The project studies close elections between men and women for election to India's state legislative assemblies. It finds significantly higher growth in economic activity in constituencies that elect women.
- The study is relevant to the pending proposal to reserve one third of all federal and state assembly seats for women.
- **Significance of Raising the share of women in India's state legislative assemblies.**
 - **Better Policy Making** – Better representation of women's and children's concerns in policymaking
 - **Higher economic growth** – Research suggests that women favour redistributive politics and, thus, have a tolerance of higher taxes
 - **Less Criminalization of Politics** – Male legislators are about three times as likely as female legislators to have criminal charges. These

findings reflect that women are more fair, risk-averse and less likely to engage in criminal and other risky behavior than men.

- **Economic infrastructure** – Evaluation of Pradhan Mantri Gram Sadak Yojana shows the share of incomplete road projects is 22 percentage points lower in female-led constituencies.

Critical Evaluation:

- Women legislators only perform better than men in non-swing constituencies. In swing constituencies (swing seat is a constituency held with a small majority in a legislative election) where electoral uncertainty is greater, elected men appear to exert more effort to improve economic growth.

Global Scenario:

- More than a hundred countries have introduced quotas for women in parliament or in party lists in the last two decades.
- The percentage of women in parliament worldwide has more than doubled in the last 20 years, standing at 22.8% in June 2016.

5. Lok Sabha passes Bill to remove leprosy as ground for divorce

Why in news?

Lok Sabha has passed The Personal Laws (Amendment) Bill, 2018.

Rationale behind the amendment:

- The bill seeks to remove leprosy as a ground for divorce in five personal laws – Hindu Marriage Act, Dissolution of Muslim Marriages Act, Divorce Act (for Christians), Special Marriage Act and the Hindu Adoptions and Maintenance Act.
- Leprosy as ground for divorce is a “discriminatory” provision for a disease that is now curable.
- The Human Rights Commission and judgements of various courts had also underlined the need to amend the laws to remove this discrimination.
- The Law Commission in its report had also recommended repealing laws and provisions which were discriminatory against leprosy-affected people.
- Further, India is a signatory to a UN Resolution which calls for the elimination of discrimination against persons suffering from leprosy.

6. Street Light National Programme (SLNP)

Context:

The Centre is likely to miss the goals it had set under the Street Lighting National Programme (SLNP) when it was launched on January 5, 2015. Energy Efficiency Services Limited has installed over 76.77 lakh LED street lights in 28 States or Union Territories till January 3, 2019.

Street Light National Programme (SLNP):

- Under the SLNP, the Government aims to replace 3.5 crore conventional street lights with energy efficient LED lights.
- The target under SLNP is to replace 1.34 crore conventional street lights with energy efficient LED street lights by March 2019.
- The project has been implemented across 28 states and union territories.
- Energy Efficiency Services Limited, a Public Energy Services Company under the administration of Ministry of Power, Government of India (GoI) is the implementing agency for SLNP.
- EESL also undertakes social audits in all states post the completion of the project.

Objectives:

- Mitigate climate change by implementing energy efficient LED based street lighting.
- Reduce energy consumption in lighting which helps DISCOMs to manage peak demand.
- Provide a sustainable service model that obviates the need for upfront capital investment as well as additional revenue expenditure to pay for procurement of LED lights.
- Enhance municipal services at no upfront capital cost of municipalities.

Significance:

The installation of LED-based street lighting system is essential, since LED lighting offer higher efficiency, better illumination and life expectancy apart from being environmentally sustainable.

Energy Efficiency Services Limited (EESL):

- Energy Efficiency Services Limited (EESL) is a joint venture of NTPC Limited, Power Finance Corporation, Rural Electrification Corporation and POWERGRID.
- It was set up under Ministry of Power (India) to facilitate implementation of energy efficiency projects

7. Attack on privacy**Context:**

Recently Lok Sabha, without any attendant discussion, passed the Aadhaar and Other Laws (Amendment) Bill, 2018.

What's in news?

- The Lok Sabha, without any attendant discussion, passed the Aadhaar and Other Laws (Amendment) Bill, 2018.
- The Bill flagrantly flouts both the Constitution and the Supreme Court's

judgment which gave the Aadhaar programme a conditional imprimatur.

- It is therefore entirely likely that the government is banking on a sense of political fatigue having set in over the project..
- It has made the programme so ubiquitous that a few additional legislative tweaks are unlikely to shock and jolt the dissenters.
- The present move is so brazen that we will be failing in our collective duties were we to allow the amendments to be carried out without any debate.
- If enacted, the law will once again allow private corporations, including banks and telecom operators, to use Aadhaar as a means to authenticate identity.



In-between September and present:

- The Supreme Court's judgment, delivered last September, enjoined Parliament to make certain specific legislative changes.
- some of the court's concerns are addressed by the Bill, such as the inclusion of a clause intended at ensuring that children are not denied benefits on account of a failure to possess Aadhaar.
- But the essential object of the law is to countermine those portions of the judgment that the regime deems inconvenient.
- The objectives behind the law and an estimated assessment of the impact that such legislation may have on fundamental rights, and to thereafter invite comments from the public.
- the Bill, which makes amendments not only to the Aadhaar Act, 2016, but also to the Indian Telegraph Act, 1885, and the Prevention of Money Laundering Act, 2002 (PMLA) which was introduced without any prior consultation, leading to a credible belief that the proposed changes are an act of subterfuge.
- Originally, Section 57 of the Aadhaar Act allowed both the state and private entities to use the programme to establish an individual's identity pursuant to a law or a contract.

Commercial exploitation:

- The impact of the aforesaid features would be to enable commercial exploitation of individual biometric and demographic information by the private entities. Thus, this part of the provision which enables body corporate and individuals also to seek authentication, that too on the basis of a contract between the individual and such body corporate or person, would impinge upon the right to privacy of such individuals. This part of the section, thus, is declared unconstitutional.

- The respondents may be right in their explanation that it is only an enabling provision which entitles Aadhaar number holder to take the help of Aadhaar for the purpose of establishing his/her identity. If such a person [voluntarily] wants to offer Aadhaar card as a proof of his/her identity, there may not be a problem.

Issue of fraud:

- Allowing private corporations to access and commercially exploit the Aadhaar architecture comes with disastrous consequences.
- The move, to restore the use of Aadhaar by telecom companies and banks, is not the Bill's only problem. There is some other concerns, including the re-introduction of a marginally refurbished Section 33(2).

Conclusion:

The Bill seeks to pave the path for Aadhaar to permeate through every conceivable sphere of human activity, transferring all authority over our bodies, in the process, from the citizen to the state, and, in many cases, from the citizen to private corporations. The Rajya Sabha, therefore, should resist any developing sense of ennui around the programme, and reject this Bill, for the utter contempt of democracy that it represents.

8. The Citizenship (Amendment) Bill

Context:

The Parliament passed the contentious Citizenship (Amendment Bill), that amends the laws governing citizenship, formed in 1955, to grant Indian nationality to Hindus, Sikhs, Buddhists, Jains, Parsis and Christians.

Highlights of the Bill

- The Bill amends the Citizenship Act, 1955 to make illegal migrants who are Hindus, Sikhs, Buddhists, Jains, Parsis and Christians from Afghanistan, Bangladesh and Pakistan, eligible for citizenship.
- Under the Act, one of the requirements for citizenship by naturalisation is that the applicant must have resided in India during the last 12 months, and for 11 of the previous 14 years. The Bill relaxes this 11 year requirement to six years for persons belonging to the same six religions and three countries.
- The Bill provides that the registration of Overseas Citizen of India (OCI) cardholders may be cancelled if they violate any law.

However illegal migrants are not allowed to acquire citizenship.

Acquisition of Indian Citizenship as per Citizenship Act 1955

Indian Citizenship can be acquired under the following ways:

- Citizenship at the commencement of the constitution of India
- Citizenship by birth
- Citizenship by descent

- Citizenship by registration
- Citizenship by naturalization.

Who are illegal migrants?

- enters the country without valid travel documents, like a passport and visa, or
- Enters with valid documents, but stays beyond the permitted time period.

Illegal migrants may be imprisoned or deported under the Foreigners Act, 1946 and the Passport (Entry into India) Act, 1920.

In 2015 and 2016, the central government issued two notifications exempting certain groups of illegal migrants from provisions of the 1946 and the 1920 Acts. These groups are Hindus, Sikhs, Buddhists, Jains, Parsis and Christians from Afghanistan, Bangladesh and Pakistan, who arrived in India on or before December 31, 2014.

This implies that these groups of illegal migrants will not be deported or imprisoned for being in India without valid documents.

Why the people of Assam are against it?

If the Bill is made into an Act, it will nullify the updated National Registration of Citizenship (NRC). The process of updating the NRC is currently underway in Assam.

NRC: The National Register of Citizens (NRC) is meant to identify a bona fide citizen. NRC is being currently updated in Assam to detect Bangladeshi nationals who might have entered the State illegally after the midnight of March 24, 1971. The date was decided in the 1985 Assam Accord, which was signed between the then Prime Minister Rajiv Gandhi and the AASU. The NRC was first published after the 1951 Census in the independent India when parts of Assam went to the East Pakistan, now Bangladesh.

The first draft of the updated list was concluded by December 31, 2017. The second draft is yet to be released.

Way Forward:

The Act will also provide relief to persecuted migrants who have come through western borders of the country to States like Gujarat, Rajasthan, Delhi, Madhya Pradesh and other States. The Bill will apply to all States and Union Territories of the Country.

The beneficiaries of Citizenship Amendment Bill can reside in any state of the country. The burden of those persecuted migrants will be shared by the whole country. Assam alone should not have to bear the entire burden. Government of India is committed to give all help to the State Government and people of Assam.

9. SC decision on Delhi HC ruling against Monsanto

Context:

Recently The Supreme Court set aside a Delhi High Court Division Bench decision that held that U.S. agro major Monsanto did not have patent for its genetically modified BT cotton seed variants and had allowed it to claim registration under the Protection of Plant Varieties and Farmers' Rights Act of 2001.



Supreme Court's judgement:

- SC held that the High Court's Division Bench had no business to go into the merits of the patent rights and should have just confined itself to the validity of an injunction granted earlier by a Single Judge of the High Court in March 2017.
- The SC restored the decision of the Single Judge. It remanded the case back to the Single Judge for disposal of the patent suit between Monsanto and Indian end-users like Nuziveedu.
- Monsanto had sought a restraint on these Indian companies from selling, using seeds/hybrid seeds bearing its patented technology.

Sub-license agreement

The agreement had entitled the Indian firms to genetically modified hybrid cotton planting seeds with help of Monsanto's technology and to commercially exploit it within the limits of the agreement on the payment of a licence fee. However, the agreement was terminated in November 2015, giving rise to the patent suit.

Conclusion:

The Single Judge, in March 2017, in an interim relief, restored the agreement and ordered the parties (Monsanto and companies like Nuziveedu) to adhere to their obligations under it.

10. Reservation in General Category

Context:

The government approved a 10 per cent reservation for the 'economically backward' among the general category in government jobs and admission to higher educational institutions.

Significance of the Bill:

The proposed reservation will be over and above the existing 50 per cent reservation enjoyed by the Scheduled Castes, Scheduled Tribes and the Other Backward Classes, taking the total reservation to 60 per cent.

The constitutional amendment bill would be required as the constitution does not provide for reservation on the ground of economic conditions. The bill once passed will amend the Constitution accordingly to give reservation to the poor among the general castes and classes.

“The bill will provide a shelter for upper castes under the rubric of fundamental rights. The court’s rule of the maximum 50 per cent quota cannot fetter Parliament’s right to amend the Constitution.

Constitutional Provisions:

The constitutional amendment bill seeks to insert a clause in Articles 15 and 16 of the Constitution, introducing reservation for economically weaker sections in educational institutions and government jobs.

So far, the Constitution envisages quota for socially and educationally backward classes besides Scheduled Castes and Tribes, and **has no mention of economically weaker people.**

Why this move?

Influential castes like Marathas, Kapus and Jats have hit the streets in the last few years, seeking reservation benefits. Their protests at times have turned violent. Though governments in states like Haryana, Rajasthan and Maharashtra have made laws, they are often struck down by the court on the ground of a Supreme Court judgement in the Indra Sawhney case had fixed a ceiling of 50 per cent on reservation.

Indra Sawhney Case:

In the famous Mandal case (Indra Sawhney v. Union of India 1992), the scope and extent of Article 16(4), which provides for reservation of jobs in favour of backward classes, has been examined thoroughly by the Supreme Court.

Though the Court has rejected the additional reservation of 10% for poorer sections of higher castes, it upheld the constitutional validity of 27% reservation for the OBCs with certain conditions, viz,


- The advanced sections among the OBCs (the creamy layer) should be excluded from the list of beneficiaries of reservation.
- No reservation in promotions; reservation should be confined to initial appointments only. Any existing reservation in promotions can continue for five years only (i.e., upto 1997).
- The total reserved quota should not exceed 50% except in some extraordinary situations. This rule should be applied every year.
- The ‘carry forward rule’ in case of unfilled (backlog) vacancies is valid. But it should not violate 50% rule.
- A permanent statutory body should be established to examine complaints of over-inclusion and under-inclusion in the list of OBCs.

Reserved category

A look at the details of the 10% quota and its ramifications

ELIGIBILITY:

- People earning less than ₹8 lakh annually
- People who own farm land below 5 acres
- People who own a house measuring less than 1,000 sq ft
- In its famous Indra Sawhney judgment, the Supreme Court had set a cap of 50% on quotas
- A Constitutional Amendment Bill would be required as the Constitution does not provide for reservation on the ground of economic conditions. It envisages Amendment to Articles 15 and 16 of the Constitution



FILE PHOTO

PARLIAMENT PROCEDURE

- **Constitution amendment:** The proposed quota will be over & above existing 50% reservation. The government is likely to bring a Constitution Amendment bill in Parliament

- **Under Article 368:** The Bill must be passed in each House by an absolute majority (over 50% of total membership) and a two-thirds majority of members present and voting

Who are all eligible for the reservation?

- General category individuals, all members of whose family together earn less than Rs 8 lakh per annum, and
- People who have less than five acres of agricultural land.
- Individuals whose families own or possess more agricultural land, or a residential flat of area 1,000 sq ft.
- Or a residential plot of area less than or 100 yards in notified municipalities and less than or 200 yards in areas other than notified municipalities.

Does it include the minorities?

Yes, The Bill will also cover those from the Muslim, Sikh, Christian, Buddhist and other minority communities.

Way forward:

Reservation in jobs and in academic institution is seen as one of the most delicate issues being discussed in contemporary India. For a country that has scarce and limited public resources, reservations unquestionably have important social, economic and political implications. And above all a strong political will be a boost to the people who are really in need of exposure through these reservations.

11. Changi, Zurich airport operators

Context:

International airport operators, including those of Zurich and Singapore's Changi airports, are evaluating India's plans to privatize six airports.

Other operator's interested to upgrade are:

- German airport operator AviAlliance, US financial investor Global Infrastructure Partners (GIP), Sydney-based investment manager AMP Capital.
- Among Indian companies, Anil Ambani's Reliance Infrastructure, the National Investment and Infrastructure Fund and Adani group, besides Indian airport operators GVK and GMR are likely to participate in the bidding.

Airports that are up for bidding:

Six airports—Ahmedabad, Jaipur, Lucknow, Guwahati, Thiruvananthapuram and Mangaluru—that are currently run by the Airports Authority of India (AAI) are up for bidding.

Significance:

- Redevelopment of these airports may attract investments worth \$1.4 billion
- AAI is offering a concession period of 50 years to the winning bidder, instead of 30 years.
- The winning bid will be decided on the basis of the highest monthly per-passenger fee to AAI, again a departure from the much-contested revenue-sharing model that AAI adopted in the existing privatized airports.
- India's experience so far with privatization of airports has been mostly positive.
- Even the six that are now up for privatization are all profitable and have been giving more than 10% compound annual growth rate over the last 4-5 years. Besides this, Jaipur and Ahmedabad are in crying need for capacity augmentation.

**Conclusion:**

India has the fastest growing aviation market in the world, despite some airlines faring poorly financially, according to the International Air Transport Association.

Given the rapid airline passenger growth in India, capacity is being breached in multiple airports. So there is a definite business case for multiple airport developers and investors to take a positive view on the privatization proposal.

12. Rythu Bandhu across the country

Context:

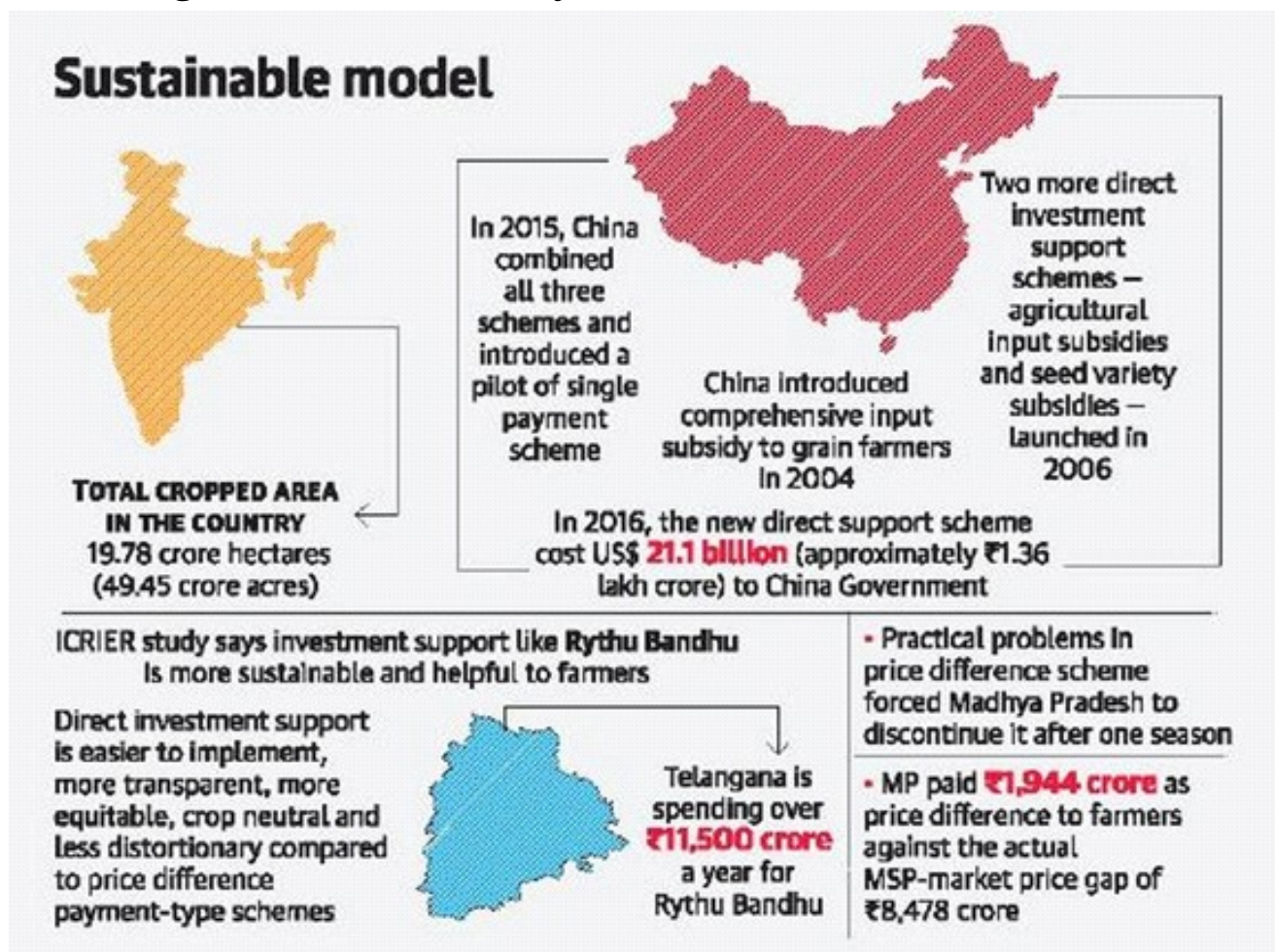
Economists says to implement Rythu Bandhu scheme across country needs Rs. 2 lakh cr.,

About Rythu Bandhu:

- Rythu Bandhu is a support scheme for farmers in Telangana, which provides cheque payments to farmers based on their landholdings.
- Under this scheme Telangana government gives every beneficiary farmer Rs 4,000 per acre as “investment support” before every crop season.
- The objective is to help the farmer meet a major part of his expenses on seed, fertiliser, pesticide, and field preparation.
- The scheme covers 1.42 crore acres in the 31 districts of the state, and every farmer owning land is eligible.
- The government will issue cheques rather than make direct benefit transfer (DBT) because banks might use the DBT money to adjust against farmers’ previous dues.

What’s in news?

- The Telangana State government proposes to increase the benefit to Rs. 5,000 per acre per crop season from the next kharif, as promised during the recent Assembly elections.



- Economists says to implement Rythu Bandhu scheme across country needs Rs. 2 lakh cr.,
- Taking a cue from Telangana, Jharkhand and West Bengal governments have already announced similar schemes with a benefit of Rs. 5,000 per acre once a year.
- West Bengal has also adopted Telangana's Rythu Bima, a group life insurance scheme under which the surviving family of every insured farmer in the age group of 18 to 59 years is being paid Rs. 5 lakh claim in the event of the farmer's death, irrespective of the cause

Significance:

- The Scheme has earned various appreciations and it is considered to be the template for social and agricultural policy.
- Indebtedness among Telangana farmers is very high and they fall into the vicious debt trap of moneylenders.
- Over a period of four or five years, farmers will be rid of all debts due to Rythu Bandhu scheme.
- Farmers also apply for loans from banks which get delayed as they don't approve quickly in time for the crop season.
- Rythu Bandhu money provides that cushion to the farmer because with that money the farmer can purchase seeds and fertiliser and start sowing.
- If a bank approves his loan later then it is of additional help to hire farm labour etc but at least he is not going to moneylenders.

Limitations:

- The Rythu Bandhu scheme does not exclude rich farmers and wealthy landlords.
- The scheme does however, have a provision under which cheques can be returned to the local authorities.
- The scheme leaves out tenant cultivators an estimated 40% of Telangana's farming population and mostly coming from the poorest and most disadvantaged backgrounds.
- Tenant farmers cannot be included in the scheme as they cannot submit any proof of cultivation of land, which is done mostly based on informal and oral lease arrangements.
- Angles in land cover, often being converted into non-forest vegetation, leading to a loss of vital ecosystem services and land degradation.
- The farmers do not look at the 'jhumscape' as a food production system alone. They derive a wide gamut of other benefits from the system.

13. Menstrual Hygiene for Adolescent girls Schemes

Objective:

- To address the need of menstrual hygiene among adolescent girls residing primarily in rural areas
- Funds are provided to States/UTs through National Health Mission for decentralized procurement of sanitary napkins packs for provision primarily to rural adolescent girls at subsidized rates as per proposals received from the States and UTs in their Programme Implementation Plans.

This scheme encompasses the following:

- Increasing awareness among adolescent girls on Menstrual Hygiene
- Improving access to and use of high-quality sanitary napkins by adolescent girls in rural areas.
- Ensuring safe disposal of Sanitary Napkins in an environmentally friendly manner.
- Provision of funds to ASHAs to hold monthly meeting with adolescents to discuss issues related to menstrual hygiene.

A range of IEC material has been developed around Menstrual hygiene Scheme, using a 360 degree approach to create awareness among adolescent girls about safe & hygienic menstrual health practices which includes audio, video and reading materials for adolescent girls and job-aids for ASHAs and other field level functionaries for communicating with adolescent girls.

ASHAs across the country are trained and play a significant role in promotion of use and distribution of the sanitary napkins.

Department of Health Research, under the Ministry of Health, is involved in assessment of all newer, alternative, environment friendly menstrual hygiene products to look into their safety and acceptability features.

International Relations

14. India's Atlantic challenge

Why in news?

Trump's America First policy and the Brexit deal could pose more challenges to economic growth in India

Important Facts:

Why Disadvantage to India?

U.S protectionism Factor:

In the context of protectionism, U.S. President Donald Trump's 'America First' policy could lead to more tariff and subsidy burden.

- The trade experience of 2018 provides a sense of what could happen in 2019 vis-à-vis India-U.S. trade relations.
- Last year, Mr. Trump started a trade war by escalating tariffs between U.S. and its three main trade partners – the EU, China and NAFTA.
- Trump administration is attempting to replace the rules-based trade order with a bilateral trade agreements and sanctions network, a system that has distinct disadvantages for India
- India was denied an exemption by the U.S. from increased tariffs on steel and aluminum imports, it reciprocated by hiking import duties on 29 American export products, including pulses and iron and steel products.
- Spiraling trade war with the U.S. could easily spin India out of control and create rifts in other areas such as security and diplomacy.

Brexit Factor

Due to U.K. Brexit policy India may expect complications regarding trade adjustment, and a U.K.-India Free Trade Agreement (FTA) may be out of the question.

Positive impacts of Brexit on India

- Brexit would surely accelerate the Europe's interest to develop India as a strong trade and strategic partner. Europe needs to counterbalance United States and China geopolitically and would also need to hedge against a slowing China for its economic interests.
- India is presently the second biggest source of FDI (Foreign Direct Investment) for Great Britain. Indian companies that would set up their factories in the UK could sell their products to the rest of Europe under the European free market system.
- Britain would not want to lose out on capital coming in from India. Thus, one can expect Britain to try extra hard to woo Indian companies to invest there by providing much bigger incentives in terms of tax breaks, lesser regulation and other financial incentives

- Presently, British universities are forced to offer subsidized rates for citizens of the UK and EU. With Brexit, however, the universities will no longer be obliged to provide scholarships to EU citizens, which will free up funds for students from other countries including India.

Negative impacts of Brexit on India

- First impact would be visible on currency volatility as there will be devaluation of the pound and euro due to Brexit. With the pound expected to fall 20 percent in case of a Brexit, Indian companies with sizeable presence in the UK will have to bear the brunt.
- Easy selling of goods and businesses from one EU country to the other did open up doors for vendors who established trade between the nations and now with the exit of Britain, there could be rules and customs imposed which will harm trade in more ways we can anticipate
- UK has always been a gateway for Indian firms to enter into EU. After Brexit, this will cause short-term distress to Indian firms. Global financial market volatility can be readily expected.
- Many big businesses and international companies are in UK mainly because of its easy connectivity to the open EU market. With that gone, there would be impending threat of these companies withdrawing their business from UK immediately.
- Brexit can affect India's flagship IT sector given that the UK accounts for 17% or one-sixth of the sector's global exports that topped \$100 billion. Brexit will increase overhead costs, setting up new headquarters, perhaps in both Europe and Britain.

Way Forward:

- With the U.K., India's trade in 2019 depends on the twists and turns of Brexit politics, both in London and in Brussels
- For India to secure its trade interests, it needs to renegotiate with both the EU and the U.K. for goods and services
- Also, the discussion on FTA with the EU must be resumed and a similar conversation must be launched with the U.K.
- If these negotiations are managed carefully, Brexit may even emerge as an opportunity for India to recalibrate the legal terms of its trade with the U.K. and the EU, at the multilateral level, and through free trade agreements.
- Brexit is an opportunity for India to reset the legal terms of its trade with the UK and EU, at the multilateral level, and through free trade agreements.

15. Disaster Management Frameworks

Disaster Management

- A disaster is an event that leads to sudden disruption of normal life, causing severe damage to life and property

- Its origin can be natural or man-made such as floods, cyclones, oil spill, chemical disasters etc.
- In order to overcome the risk created by disasters, India has signed various agreements around the world for pre and post works related to disaster management.

SENDAI framework

- India is a signatory to the Sendai Framework for Disaster Risk Reduction.
- It is voluntary and non-binding treaty which recognizes that a UN member State has primary role to reduce disaster risk.
- It was approved by UN member states in March 2015 at Third World Conference on Disaster Risk Reduction held in Sendai, Japan.
- It has framework for 15-year (2015 to 2030), It is successor of the Hyogo Framework for Action (2005–2015).
- It calls for sharing the responsibility among local government, the private sector and other stakeholders.

Four specific priorities of Sendai Framework:

- a. Understanding disaster risk
- b. Strengthening disaster risk governance
- c. Investing in disaster risk
- d. Enhancing disaster preparedness for effective response and recovery, reconstruction and rehabilitation.

Other agreements

- Agreement between India and Russia on cooperation in the field of Emergency Management.
- SAARC Agreement on Rapid Response to Natural Disasters.
- Memorandum of Understanding (MoU) with Indonesia, Germany, Tajikistan on cooperation in the field of Disaster Management.
- Government of India has partnership with various International Agencies in the field of Disaster Management such as United Nations Office for Disaster Risk Reduction (UNISDR), Global Platform for Disaster Risk Reduction (GPDRR) and United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) etc.
- The Government of India will organize a Joint Urban Earthquake Search and Rescue exercise of Shanghai Cooperation Organization (SCO) member states to improve collective preparedness in 2019.

Why in news?

- The above policies were stated by the Union Minister of State for Home Affairs, Shri Kiren Rijiju in a written reply to a question in the Lok Sabha.

At national level

- India has put in place the National Disaster Management Authority with Disaster Management Act, 2005.
- India has fully functional Indian Ocean Tsunami warning system.
- National Disaster Response Force (NDRF) under Ministry of Home Affairs to overlook the measures. India has developed seismic maps, cyclone maps, and hazard prone area maps.
- Many satellites have been launched by ISRO especially for disaster management eg. INSAT 3DR

16. NAFTA REPLACED BY USMCA

Context:

U.S, Canada, and Mexico signed a new trade agreement to replace the old North American Free Trade Agreement (NAFTA). The new deal is named as United States-Mexico-Canada Agreement (USMCA) or popularly, NAFTA 2.0.

What is NAFTA?

- The US had originally signed a bilateral trade agreement with Canada named, US-Canada Free Trade Agreement, which was brought in to force in 1989. Later, Mexico joined the deal, resulting in the North American Free Trade Agreement (NAFTA), which was enforced from 1994. NAFTA led to the removal of most of the tariffs between these three countries.
- NAFTA also deals with migration, government procurement, customs procedures, investment, trade in services, protection of intellectual property rights and dispute settlement procedures.

What are the key features of NAFTA 2.0?

- **Dairy:** Canada agreed to provide US dairy farmers access to about 3.5% of its annual domestic dairy market. Canada also agreed to offer compensation to US dairy farmers hurt by the NAFTA.
- **Dispute resolution:** The deal will continue a trade dispute settlement mechanism that Canada fought hard to maintain in order to protect its lumber industry and other sectors from U.S. anti-dumping duties.
- **Automobile:** The US preserve the ability to impose 25% global tariffs on autos while largely exempting passenger vehicles, pickup trucks and auto parts from Canada and Mexico. The pact also mandates that vehicle manufacturers source at least 70% of their steel and aluminium from within the three countries.
- **Energy:** The deal states that Mexico has the direct and inalienable ownership of all hydrocarbons in the country. This reflects the concerns of Mexico's incoming government that the deal would restrict the country's control over its oil resources. However, it does not prevent

foreign oil companies from producing oil in Mexico under a liberalization regime imposed by the outgoing government.

- **Intellectual property:** The deal extends the terms of copyright to 70 years beyond the life of the author (from the current 50). It also extends the period that a pharmaceutical drug can be protected from generic competition. Digital trade: It also has provisions to deal with the digital economy including prohibiting duties on products like music and e-books, and protections for internet companies so that they are not liable for content produced by their users.
- **Sunset clause:** The agreement includes a 16-year sunset clause, which means that the terms of the agreement expire after a set period of time. The deal is also subject to a review every 6 years, at which point the three countries can decide to extend the deal further.

Implications to the World and India:

- Re-negotiating trade pacts that have promoted globalization over the last 50 years is a serious concern. Because if each country attempts to protect its businesses and adopts a tariffs structure accordingly, then there will be chaos since countries with the exportable surplus will resort to dumping their products in other markets. This will affect global growth in the long run.
- It could become a major threat to China because it gives a near veto-power to the US over any attempt by Canada or Mexico to try to reach a similar agreement with countries of non-market economy status which China is yet to acquire.
- Indian imports and exports will be affected because the new deal realigns the demand-supply equations in several commodities.
- The biggest impact is going to be in the auto section that stipulates conditions such as manufacturing a greater portion of vehicles in the three countries and with high-wage labour in the US and China.
- The USMCA mandates a minimum wage that is above the market wage on labour employed in Mexico, yet another move that will make North America a tough place to do business. Foreign investors may now have fewer protections from unfriendly local laws as the accord does away with resolutions through multilateral dispute panels for certain sectors .

Way forward:

Legislators from the three countries still have to approve the pact, officially known as the United States-Mexico-Canada Agreement (USMCA), before it goes into effect and replaces the North American Free Trade Agreement (NAFTA). India's trade negotiators will now have their task cut out if they want to protect exporters' access to one of the country's largest markets for its services and merchandise.

17. End to Sri Lankan Crisis

Recent Crisis

- In the last week of October, Sri Lanka has witnessed major political developments when President Maithripala Sirisena has suspended the country's Parliament and sacked Ranil Wickremesinghe as the Prime Minister and named Mahinda Rajapaksa as the next Prime Minister.
- The political turmoil is the result of fallout between Sirisena and Wickremesinghe over crucial policy matters pertaining to running the unity government which was formed in 2015.
- With no majority to Rajapaksa to form the government, the Sri Lankan President dissolved the parliament and announced for fresh elections, which was later halted by the Supreme court.
- Due to lack of majority, Mahinda Rajapaksa resigned as Prime Minister.
- Thus, with no other options Wickremesinghe was again sworn in as the Prime minister of the country.

Why in news?

- India had welcomed the end of political uncertainty in Sri Lanka with the return of Ranil Wickremesinghe as Prime Minister.

India in Sri Lanka

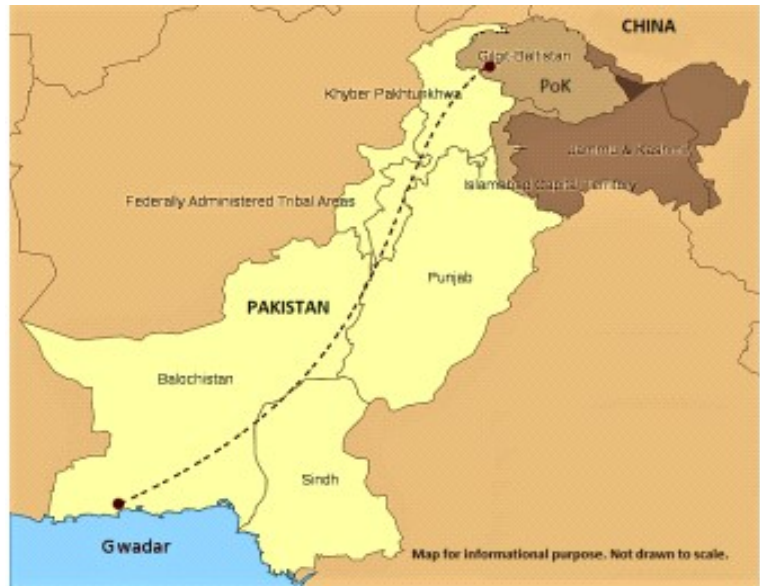
- India-Sri Lanka Free Trade Agreement was signed in 2010.
- India and Sri Lanka conducts one of the largest joint Military exercises called 'Mitra Shakthi' and joint Naval exercise called 'SLINEX'.
- India has provided medical equipment and ambulances to hospitals in Sri Lanka.
- Sri Lanka has signed Memorandum of Understanding (MoU) with India to build 1,200 houses in strategically located southern port city of Hambantota.
- India has agreed to form a joint venture with Sri Lanka to operate the country's loss-making Mattala Rajapaksa International Airport in Hambantota,
- While the renovation works in Hambantota port is taken by china, which is a part of "String of Pearls".

18. China-Pakistan relations

Overview

- The China-Pakistan Economic Corridor (CPEC) is a part of China's ambitious One Belt One Road (OBOR) Initiative to link China with Europe.
- Started in 2013, the CPEC is a developmental project between Pakistan and its all-weather friend China.

- It is 46-billion-dollar project which will connect Kashgar in Xinjiang province of China, with Gwadar port in Baluchistan.
- It is connected through a vast and complex network of roads as well as other infrastructure projects such as dams, hydropower projects, railways, and pipelines.
- It helps china to access Middle East and Europe at a short distance.



Recent Developments

- China has planned to invest in Pakistan's defence equipment producing sector to produce fighter jets, weapons, hardware in the proposed special economic zone to be built in Pakistan.
- It comes after United States cancelled billions of dollars of security aid to Pakistan.
- China had also agreed in 2015 to sell eight submarines to Pakistan in a deal worth up to \$6 billion.
- For the first time, navigation systems, radar systems and onboard weapons would be built jointly by the countries at factories in Pakistan.
- This has given military colour to the economic project undertaken by Pakistan
- A Chinese-built seaport and special economic zone in the Pakistani town of Gwadar gives Beijing a strategic card to play against India and the U.S.
- Pakistan is the only other country that has been granted access to the Chinese military service, allowing more precise guidance for missiles, ships and aircraft

Why in news?

- China has planned to create Special economic zone in Pakistan as a part of China-Pakistan Economic Corridor (CPEC) for production of military equipment.

Indian steps to counter Chinese influence:

- In order to counter Chinese dominance in Gwadar Port, India has invested in Iran's Chabahar port which is very near to Gwadar.
- Also, India, Iran, and Afghanistan signed a trade corridor deal giving India the land access to Central Asia from Chabahar, bypassing Pakistan.

- India can work on improving the relationship with Pakistan as it can provide the shortest land route for us to access Central Asia.
- Therefore, a good relationship with Pakistan can give a boost to our trade relations with central Asian countries

19. The centre moves east

Context:

The advancement of Bangladesh economically and its implications for the sub-continent. In focusing on the scale of Sheikh Hasina's victory in the general election a few days ago and the allegations of rigging by her opponents in Bangladesh, it is easy to miss the significant structural change unfolding in Bangladesh and its long-term implications.

Facts:

- Sheikh Hasina has been elected consecutively for the third time as the Prime Minister of Bangladesh, providing the much needed continuity in Bangladesh's political and economic realm.
- The stability and continuity provided by Hasina has been critical in the dramatic improvement witnessed in Bangladesh's economic prospects during the decade.
- Under her leadership, Bangladesh has emerged as one of the world's fastest-growing economies, doubling its per capita income over the last decade and is all set to leave the category of "least developed countries".
- Hasina aims to accelerate the annual economic growth rate of Bangladesh from current 7% to nearly 10% by 2021.

Implications of Bangladesh's rise and prospects:

- **Model to emulate:** Bangladesh presents an impressive economic model, which lays stress not on foreign aid but on trade and investment, which could be emulated by other countries over-reliant on foreign aid like Pakistan.
- **Religious moderation:** Bangladesh model boasts of successful moderation of religious idealism instead of extremism.
- **Tilt of balance within South Asia:** Bangladesh's rise shifts the economic centre of gravity of South Asia towards the east. It would lift the entire eastern Subcontinent, including India's Northeast as well as Bhutan and Nepal.
- **Integration of eastern Subcontinent and Southeast Asia:** Maritime territorial issues of Bangladesh with India and Burma have been peacefully resolved which opens room for maritime economic and security cooperation within the Bay of Bengal and also deepen the integration between eastern Subcontinent and Southeast Asia.
- **Successful implementation of BCIM (Bangladesh, China, India and Myanmar) Corridor:** Economic growth in Bangladesh will act as an

enabler for successful conduct of the BCIM corridor which integrates China's Yunnan province with Myanmar, Bangladesh and eastern India.

- Since long the South Asian geography has been viewed through the prism of India-Pakistan relations and the narrative has been largely negative. But the rise of Bangladesh and the expanding regional cooperation centred around it allows us to imagine a positive future for the Eastern subcontinent and its integration with the dynamic East Asian region.

20. MoU between India and Morocco on Cooperation in the area of Cyber Security:

- The MoU intends to promote closer cooperation for exchange of knowledge and experience in detection, resolution and prevention of security-related incidents between India and Morocco.
- Implementation of the MoU will result in significant mutual benefits in the Cyber Security sector, through institutional and capacity building with Morocco in the field of Cyber Security.

21. Pashtun factor

Context:

In fashioning its Afghan policy, India has to take into account a resurgent Taliban

It's rightly being pointed out that India has to be prepared for the potential consequences of the withdrawal of U.S. troops from Afghanistan. While New Delhi is weighing its options it must take into account that for all its antipathy toward the Afghan Taliban.

Shifting power in invasion:

- It is the combination of ultra-orthodox Islam, a product of Saudi involvement in the so-called Afghan "jihad", with Pashtunwali
- Pashtunwali is the traditional Pashtun social code, and opposition to foreign presence that provides strength to the Taliban.
- Most Pashtuns comprise over 40% of the population of Afghanistan, believe that they are the rightful rulers of the country.
- They base this on the history of the past 300 years when Pashtun dynasties ruled Afghanistan almost throughout.
- While the Persian-speaking Tajiks, who form around a quarter of the population, are more urban and educated than the Pashtun tribes and staffed a substantial portion of the Afghan bureaucracy, the ruling dynasties were invariably Pashtun.
- This situation changed with the American invasion in 2001 aided by the largely Tajik Northern Alliance that shifted the locus of power out of Pashtun hands.

- The emergence of the Pashtun Taliban from Kandahar in 1994 was in reaction partly to the fear of Tajik domination and partly to the mayhem and anarchy caused by the “mujahideen” factions fighting each other for control of the country.
- With Pakistan’s military help the predominantly Pashtun Taliban imposed a degree of order and ruled approximately three-quarters of Afghanistan from 1996 to 2001.

Pashtun resentment against foreign intervention:

- Pashtun resentment against foreign intervention drove their opposition to the Soviet invasion and now fuels antipathy towards American military presence.
- It was augmented by British success in dividing the Pashtun lands in eastern and southeastern Afghanistan and drawing the Durand Line that attached a large portion to British India, now Pakistan.
- This drastically reduced Pashtun demographic superiority in Afghanistan.
- Opposition to the Durand Line was the principal reason why Afghanistan voted against Pakistan’s admission to the UN in 1947.
- Traditionally, Pashtun nationalism in Afghanistan was based on ethnicity and tribal loyalties and not connected to religion, which explains their hostility toward predominantly Muslim Pakistan during the first three decades of its existence.
- The Soviet invasion of Afghanistan in December 1979 fundamentally changed the nature of Pashtun nationalism.
- It led to American and Saudi support for the Afghan insurgency, with Pakistan acting as the conduit for American arms and Saudi financial support to the tribes fighting the Soviets and their proxy government in Kabul.
- It also led to the import of Saudi-Wahhabi ideology through madrasas set up with Saudi funding on the Pakistan-Afghanistan border. These madrasas produced the first generation of the Taliban.

Pakistan and the Pashtuns:

- The Soviet invasion altered the nature of Pakistan’s relationship with Pashtun nationalism, turning it from hostility to support.
- This process culminated with the installation of the Taliban regime in Kabul in 1996 with Pakistan’s military aid.
- It provided Pakistan with strategic depth in the event of a future conflict with India. Equally important, Pakistan’s support to this religiously inspired manifestation of Pashtun nationalism largely solved the problem of Pashtun irredentism within Pakistan.
- Although polls show that the majority of Afghans do not support the Taliban, the divided and infirm nature of the nominally ruling dispensation and its corruption and inefficiency have helped the

Taliban gain renewed support among parts of the Pashtun population.

- Added to this is the vicarious satisfaction that many Pashtuns feel at the Taliban's defiance of the Kabul government, making it a viable force in Afghanistan.
- The resurgent Taliban is driven not so much by Islam as the quest for Pashtun dignity and revenge.
- While it is not in a position to rule over the entire country, and certainly not the urban areas, it does control large swathes of the rural areas in the predominantly Pashtun provinces of eastern and southeastern Afghanistan.
- In other words, it is in a position to make the country ungovernable and indefinitely continue the civil war especially because of its control of the drug trade that finances its activities.
- The withdrawal of American forces will provide it greater opportunity to expand its area of operation.

Indian policy:

India's refusal to publicly criticise, let alone denounce, the Soviet invasion of 1979, while understandable in that particular geopolitical context and a consequence of India's gratitude for Soviet support during the Bangladesh war, ended up doing India great harm in the eyes of its traditional friends in Afghanistan, the Pashtuns. It also provided Pakistan greater scope to curry favour with Afghanistan's largest and traditionally dominant ethnic group.

Conclusion:

India will take a great deal of creative thinking and imaginative refashioning of New Delhi's policy towards Afghanistan for India to recover lost ground vis-à-vis the Pashtuns. Depending on the U.S., itself on the verge of cutting its losses in Afghanistan, or on other powers such as Russia and Iran to protect Indian interests in that country will be foolhardy and counter-productive.

22. INDO-France Pact for Sustainable Development

- India and France are today the leading nations in the fight against climate change. The joint hosting by India and France of the Founding Conference of the International Solar Alliance (ISA) on 11th March 2018 in New Delhi and the first General Assembly in New Delhi from 2nd to 5th October 2018 has bolstered our joint resolve to fight climate change.
- The second India-France Dialogue on Africa, which took place on 11th December 2018, provided both countries an opportunity to exchange views on the latest developments in Africa as well as to explore possibilities for joint endeavour to contribute towards peace, stability and prosperity in Africa.

Economy

23. Government worries as there is sharp slow in the growth

Context:

India's \$2.7 trillion economy is slowed down ahead of national elections by May, with a federal statistics body projecting an overall economic growth of 7.2% for the year ending 31 March.

Important facts:

- With the economy already recording 7.6% growth in the first half (April-September) of the fiscal, this implies it will grow at around 6.8% in the second half (October-March).
- The Central Statistics Office (CSO) on released the first advance estimates for the current fiscal, mainly for the finance ministry to use as a base for its calculations in the interim Budget to be presented on 1 February.
- CSO's 7.2% figure is slower than the Reserve Bank of India's estimate of 7.4% growth in its latest monetary policy. However, it would still be faster than the 6.7% growth clocked in 2017-18.



Reason's for down growth in the second half:

- The government's inability to boost growth as fiscal deficit in the first eight months of the year (April-November) has crossed 112% of the full-year target.
- Higher public expenditure, both by states and the centre, had buoyed growth in the first half of the year.
- While the shortfall in goods and services tax (GST) collections is expected to be partly met by the higher-than budgeted growth in direct tax collections, it is unlikely to make up for it.

Conclusion:

While the government has targeted ¹ 1 trillion GST collections every month, the figure was crossed only twice during the first nine months of this fiscal. However, CSO's estimate of nominal GDP growth at 12.3% for 2018-19 against the finance ministry's assumption of 11.5% for the same year will help the government meet the fiscal deficit target of 3.3% of GDP despite the revenue shortfall.

Very healthy advance GDP growth numbers for 2018-19. GDP grows by 7.2% compared to 6.7% in 2017-18. India remains fastest growing major economy globally. At current prices, GDP grows by 12.3% rising to 188.41 lakh crore. Per capita GDP at current prices rises to ¹ 141447."

The numbers must be read with caution as the methodology clearly says that these are extrapolations of existing data on various sectors, which could range from six to eight months. Therefore, there is scope for change in these numbers when the actual numbers are reckoned. The Q3 results in February (end) will throw more light on the final outcome.

24. First-ever three-way merger in Indian Banking with amalgamation of Vijaya, Dena and Bank of Baroda:

With Bank of Baroda as the transferee bank and Vijaya Bank and Dena Bank as transferor banks. The amalgamation will be the first-ever three-way consolidation of banks in India, with the amalgamated bank being India's second largest Public Sector Bank.

- Help create a strong globally competitive bank with economies of scale and enable realisation of wide-ranging synergies.
- Leveraging of networks, low-cost deposits and subsidiaries of the three banks has the potential of yielding significant synergies for positioning the consolidated entity for substantial rise in customer base, market reach, operational efficiency, wider bouquet of products and services, and improved access for customers.
- The amalgamated bank will be better equipped in the changing environment to meet the credit needs of a growing economy, absorb shocks and capacity to raise resources. Economies of scale and wider scope would position it for improved profitability, wider product offerings, and adoption of technology and best practices across amalgamating entities for cost efficiency and improved risk management, and financial inclusion through wider reach.
- It would also enable creation of a bank with scale comparable to global banks and capable of competing effectively in India and globally.
- Strengths of individual banks – such as Dena Bank's relatively higher access to low-cost CASA deposits, Vijaya Bank's profitability and availability of capital for growth, and the extensive and global network and offerings of BoB will translate into advantages in terms of market reach, operational efficiencies and the ability to support a wider offering of product and services.
- The amalgamated banks will have access to a wider talent pool, and a large database that may be leveraged through analytics for competitive advantage in a rapidly digitalising banking context. Benefits would also flow as a result of wider reach and distribution network and reduction in distribution costs for the products and services through subsidiaries.

Public at large shall benefit in terms of enhanced access to banking services through a stronger network, the ability to support a wider offering of product and services, and easy access to credit.

25. Pradhan Mantri Fasal Bima Yojana (PMFBY)

Context:

Parliament's committee on estimates has in its latest report called for re-formulation of the Pradhan Mantri Fasal Bima Yojana (PMFBY), seeking transparency in its working and asking for more financial allocations to attract increasing participation from farmers. The committee has observed that there are fundamental flaws in the design of the scheme that renders it rather ineffective.

Background:

Pradhan Mantri Fasal Bima Yojana (PMFBY), the flagship programme launched with much fanfare in 2016, has run into rough weather. With both the area covered and the number of enrolled farmers declining, the country's premium crop insurance scheme is certainly in need of an overhaul.

Challenges at present:

- Insufficient reach and the issue of penetration.
- **Data constraints:** With just around 45% of the claims made by farmers over the last three crop seasons data for the last rabi season is not available paid by the insurance companies.
- **Low payout of claims:** The reason for the very low payout of claims is that only few state governments are paying their share of the premiums on time and till they do, the central government doesn't pay its share either. Till they get the premium, insurance companies simply sit on the claims.
- **Gaps in assessment of crop loss:** There is hardly any use of modern technology in assessing crop damages. There is lack of trained outsourced agencies, scope of corruption during implementation and the non-utilisation of technologies like smart phones and drones to improve reliability of such sampling
- Less number of notified crops than can avail insurance, Inadequate and delayed claim payment.



- High actuarial premium rates: Insurance companies charged high actuarial premium rates.
- If states delay notifications, or payment of premiums, or crop cutting data, companies cannot pay compensation to the farmers in time.
- **Poor capacity to deliver:** There has been no concerted effort by the state government and insurance companies to build awareness of farmers on PMFBY. Insurance companies have failed to set-up infrastructure for proper Implementation of PMFBY.
- PMBY is not beneficial for farmers in vulnerable regions as factors like low indemnity levels, low threshold yields, low sum insured and default on loans make it a poor scheme to safeguard against extreme weather events.

About PMFBY:

In April, 2016, the government of India had launched Pradhan Mantri Fasal Bima Yojana (PMFBY) after rolling back the earlier insurance schemes viz. National Agriculture Insurance Scheme (NAIS), Weather-based Crop Insurance scheme and Modified National Agricultural Insurance Scheme (MNAIS).

Premium: It envisages a uniform premium of only 2% to be paid by farmers for Kharif crops, and 1.5% for Rabi crops. The premium for annual commercial and horticultural crops will be 5%.

The scheme is mandatory for farmers who have taken institutional loans from banks. It's optional for farmers who have not taken institutional credit.

Objectives:

- Providing financial support to farmers suffering crop loss/damage arising out of unforeseen events.
- Stabilizing the income of farmers to ensure their continuance in farming.
- Encouraging farmers to adopt innovative and modern agricultural practices.
- Ensuring flow of credit to the agriculture sector which contributes to food security, crop diversification and enhancing growth and competitiveness of agriculture sector besides protecting farmers from production risks.

26. Lopsided spatial development in India needs to be fixed

Context:

India's high economic growth in past few years has been characterized by unequal, skewed industrialization and infrastructural development across Indian cities, with clusters of economic activity concentrated in a few highly dense megacities.

Unlike in China, Europe and the US, where the engines of growth and job

creation have spread to the secondary cities, in India medium-sized cities are crippled with problems of unemployment, poverty and lack of infrastructural development.

Determinants of spatial development: Agglomeration economies and Congestion costs

- Spatial development in any location is determined by the trade-offs between the forces of agglomeration economies and congestion costs. Agglomeration economies are the benefits that come when firms and people locate near one another together in cities and industrial clusters.
- Agglomeration economies in the US are concentrated in locations with employment density below 150 employees per sq. km. However, in India, Agglomeration economies is concentrated in location with employment density even more than 1000 employees/ sq.km
- With increased employment density and resultant congestion, there is reduced employment growth. For example: In China, locations with employment density above 150 employees per sq. km have experienced reduced employment growth, indicating important congestion costs

Difference in spatial pattern of development of manufacturing and service sector in India

a) Manufacturing sector:

- India's manufacturing sector is spatially spreading at a much faster pace than the services sector and there has been spread in low-density manufacturing districts. However, the manufacturing sector has not spread to all districts.
- The spatial evolution trend in the manufacturing sector in India is similar to the trends found in China and the US. However, speed and pace of spatial spread is much slower in India

b) Service sector:

- High-density service clusters have continued to grow at a much faster pace than less dense areas and more dense locations have become more concentrated over time.
- The spatial evolution trend in service sector is different from that in USA and China. For example: In USA, service sector have tended to grow fastest in medium density locations, such as Silicon Valley.

Why is India's spatial evolution different?

- Though India's megacities suffer from severe congestion costs, they also benefit from huge agglomeration economies and knowledge spill overs. The service sector has benefitted more from knowledge spillovers compared to the manufacturing sector
- The agglomeration economies have dominated over congestion costs for the service sector.
- Further, the spatial development policy initiatives have failed to develop small and medium cities.

Way ahead:

- The Spatial evolution experience of China and the US indicate India's engines of growth and job creation will be in small and medium cities and not megacities.
- However, there needs to be emphasis on inclusive spatial development in our development discourse.
- Policymakers need to focus on infrastructural development, improved access to telecommunication, and post-secondary education in secondary cities to develop service sector.

27. Guwahati gets two international flights**Context:**

Assam's largest city is likely to be the first to be connected internationally with the Centre finalizing bids for the Guwahati-Dhaka and Guwahati-Bangkok routes, under the **UDAN scheme**.

International version of UDAN scheme:

- The international version of the scheme, also known as UDAN (Ude Desh ka Aam Naagrik), seeks to provide air connectivity at affordable costs to select overseas destinations.
- The Assam government was the first to evince interest to fly passengers to ASEAN countries from Guwahati by offering financial support. Now, Andhra Pradesh has also approached the ministry to connect Vijayawada to cities like Singapore and Dubai.
- At present, low-cost carrier Air Asia is operating daily flight services to Kuala Lumpur from Bhubaneswar with a subsidy from the state government on a per-flight basis.
- The airline could add more routes from the state capital to Colombo in Sri Lanka and Bangkok in Thailand.
- While the capped ticket price for international Udan and number of seats on which it will be applicable are still to be worked out, here the VGF will be borne solely by the state governments concerned.

Features of UDAN overseas scheme:

- Under international version of the UDAN scheme, the subsidy will come from the states and not the central government.
- Moreover, in contrast to the domestic UDAN scheme, no airline company will be given any exclusivity over any route under international UDAN scheme.
- Bids for the international version of UDAN were invited by the Airports Authority of India (AAI) on behalf of the Civil Aviation Ministry and the Assam government.
- According to the draft IACS, the scheme is to be made operational only for those states that demonstrate their commitment to implement

and provide the requisite support for promoting operations.

- Last year, the Assam government offered to provide Rs 100 crore as viability gap funding towards extension of the UDAN for international air connectivity from the state capital Guwahati.
- An International Air Connectivity Fund (IACF) for providing financial support to airlines participating in the scheme will be set up.

UDAN scheme:

- Udan is basically a subsidized travel scheme where fares for a specified number of seats is capped and the government provides a viability gap funding (VGF) to the carriers to make up for the below-market pricing.
- The aim is to connect smaller places through air network by using under-served and unserved airports.
- The UDAN, announced in October 2016, seeks to connect unserved and under-served airports in the country as well as make flying affordable by capping fares at Rs 2,500 for a one-hour flight.
- The ministry has awarded more than 450 domestic routes under the UDAN to various operators in two rounds since March 2017. It is also working on the third round of the scheme.
- Under Udan for domestic routes, fares for 50% of seats are capped at Rs 2,500 for an hour-long flight and VGF is provided by the central government. The state governments waive airport charges and taxes on aviation turbine fuel.

28. Strategy for New India @ 75

What's in the news?

Niti Aayog has unveiled its 'Strategy for New India @ 75' document with an aim to accelerate growth to 9-10 per cent and make the country a \$4-trillion economy by 2022-23.

Key recommendations

- The annual growth rate of 9-10 per cent by 2022-23 would be essential for generating sufficient growth and achieving prosperity for all.
- This will raise the economy's size in real terms from \$2.7 trillion in 2017-18 to nearly \$4 trillion by 2022-23. Besides having rapid growth, it is also necessary to ensure that growth is inclusive, sustained, clean, and formalised.
- Increase the investment rate as measured by gross fixed capital formation (GFCF) from the present 29% to 36% of GDP by 2022. In agriculture, shift the emphasis to converting farmers to 'agripreneurs' by further expanding e-National Agriculture Markets (e-NAM) and replacing the Agricultural Produce Marketing Committee Act with the Agricultural Produce and Livestock Marketing Act.
- Give a strong push to 'Zero Budget Natural Farming' techniques that

reduce costs, improve land quality and increase farmers' incomes. Launch a mission "Explore in India" by revamping minerals exploration and licensing policy.

- Double the share of freight transported by coastal shipping and inland waterways
- Develop an IT-enabled platform for integrating different modes of transport and promoting multi-modal and digitized mobility.
- With the completion of the Bharat Net programme in 2019, all 2.5 lakh gram panchayats will be digitally connected. Aim to deliver all government services at the state, district, and gram panchayat level digitally by 2022-23.
- Create a focal point for public health at the central level with state counterparts. Promote integrative medicine curriculum.
- Conceptualize an electronic national educational registry for tracking each child's learning outcomes.
- Implement the recommendations of the Second Administrative Reforms Commission as a prelude to appointing a successor for designing reforms in the changing context of emerging technologies and growing complexity of the economy.
- Set up a new autonomous body, viz., the Arbitration Council of India to grade arbitral institutions and accredit arbitrators to make the arbitration process cost effective and speedy, and to pre-empt the need for court intervention.
- Expand the scope of Swachh Bharat Mission to cover initiatives for landfills, plastic waste and municipal waste and generating wealth from waste.

29. Online sale of drugs, cosmetics

Draft rules to amend Drugs and Cosmetics Rules, 1945

- The Drugs and Cosmetics Act, 1940 and the Drugs and Cosmetics Rules, 1945 regulates the import, manufacture and distribution of medicines in the country.
- While it regulates sales of drugs, it was not clear whether the existing rules under the Act would be applicable to online sale of drugs.
- It was in order to address this specific issue, that the Union Ministry of Health and Family Welfare published draft rules in September 2016, seeking to amend the Drugs and Cosmetics rules regarding the distribution or sale, stock, exhibit or offer for sale of drugs through e-pharmacies.

What is an e-pharmacy?

- The draft rules define e-pharmacy as a business of distribution or sale, stock, exhibit or offer for sale of drugs through web portal or any other electronic mode.

Highlights of the Draft

- **Registration and Customer Support:** The draft rules make it mandatory that no person shall sell, stock, exhibit or offer for sale drugs through e-pharmacy portal unless registered. Further an e-pharmacy registration holder shall have a facility for customer support and grievance redressal for all stakeholders.
- **Data Localisation:** Also as per the draft rules the e-pharmacy portals have to be established in India through which they are conducting their business and shall keep the data generated localised.
- **Periodic Inspection:** The premise where the e-pharmacy business is conducted shall be inspected every two years by the Central Licensing Authority.
- **Procedure for distribution of sale of drugs through e-Pharmacy:** The registered pharmacist must verify the details of the patients, registered medical practitioner and arrange for dispense of the drugs.

Why in News?

- The Madras high court has issued a blanket ban on online sale of medicines till the central government notifies the draft rules regulating it.
- The court has also set January 31, 2019 as deadline to issue the notification. Earlier, the Delhi High Court had also banned the sale of drugs online.
- The petitioners argued that the online sale of drugs listed in Schedule H, H1 and X of the Drugs and Cosmetics Act of 1940 were rampant in the country though there was a specific legal bar on selling such medicines without the prescription of medical practitioners.
- The attraction of the online pharmacy, for many, is the fancy discounts that are available, up to 60%, besides free home delivery and sometimes, other value-added services

Geography and Environment

30. Rare Disease

Why in news?

Children losing their life due lack of action on implementing the National Policy on Rare Diseases

What are Rare Diseases?

- A rare disease is a health condition which has a low prevalence and affects a small number of people. Rare diseases include genetic diseases, rare cancers, infectious tropical diseases and degenerative diseases.
- They are chronic, debilitating, life threatening and often result in some form of handicap. Patients have often taken the government to court on this, because treatment of rare diseases is long, specialized and expensive.
- The most common rare diseases reported in India include hemophilia, thalassemia, sickle-cell anemia and primary immune deficiency in children, autoimmune diseases, lysosomal storage disorders such as pompe disease, Hirsch sprung disease, gaucher's disease, cystic fibrosis, hemangiomas and certain forms of muscular dystrophies.

National Policy on Rare Diseases

- National Policy on Rare Diseases was introduced in 2017
- It provided for corpus fund of 100 Crores at Central and State Level for part funding treatment of rare diseases,
- Setting up of a Central Technical Committee (CTC) and individual State Technical Committees (STCs) to ease the process of patient applications,
- Encouraging funding support from public sector undertakings (PSUs)

Gaps highlighted in the Policy:

- **Policy is silent on a definition of rare diseases** – India does not have a definition for rare diseases. The new policy does not define this either, leaving it unresolved and saying
- **No Corpus fund** – Though the corpus fund of 100 Crores was provided in the affidavit, no such corpus was created under National Health Mission
- Many of the states in India, till now, **do not know about the national policy** or have the clarity on its implementation
- There is no clarification as to whether the financial help for treatment would only be provided for BPL patients or would also include APL patients
- The implementation of the policy was mistakenly shifted from the Public Health Division to the National Health Mission, which has the

mandate of only primary and secondary healthcare while rarest diseases require tertiary care.

- Due to this discrepancy, the affidavit claims, National Health Mission funds cannot be earmarked to create the Rs 100 crore corpus

Way Forward:

- As health is a state subject, state governments have a critical role to play in providing and organizing whatever support these patients require.
- Karnataka is emerging as a model state in this regard with the establishment of a rare disease care center of excellence at the Indira Gandhi Institute for Child Health (IGICH) in Bengaluru. Other states should follow this initiative to provide the much needed succor to these patients without wasting further time.

31. Reducing Carbon Emission by Altering the Method of Farming

Initiative has been taken to make agriculture more adaptive and resilient to climate variability and in the process to reduce carbon emission.

Soil, water and crop management practices that reduce carbon emission include:

- Increasing the area under System of Rice Intensification (SRI) as an alternative to transplanted paddy.
- Deployment of zero tillage drill machines and other residue management equipment which enable planting of rabi crop in the standing residue of rice crop to avoid its burning.
- Alternate wetting and drying, direct seeded rice system of rice cultivation, use of slow release nitrogen fertilizers, integrated nutrient management practices, leaf colour chart-based nitrogen application, use of urea super granules etc.
- Mandatory Neem coating of urea.
- Promotion of micro irrigation under Pradhan Mantri Krishi Sinchai Yojana (PMKSY)-Per Drop More Crop.
- Planting of trees under National Food Security Mission (NFSM), Bringing Green Revolution to Eastern India (BGREI), Sub-Mission on Agro Forestry (SMAF) and National Bamboo Mission (NBM).
- 45 models of Integrated Farming System (IFS) have been developed for replication in Krishi Vigyan Kendras (KVKs) and in the States for enabling climate resilient agriculture.
- Climate resilient villages have been developed by Indian Council of Agricultural Research (ICAR), one in each of 151 districts. Climate Vulnerability Atlas has been prepared under National Innovations in Climate Resilient Agriculture (NICRA). District Agriculture Contingency Plans have been developed for 633 districts in order to give real time agro advisories for overcoming climate risks.

32. National Bamboo Mission

Context:

The restructured National Bamboo Mission (NBM) was approved in April, 2018 for implementation till the end of 14th Finance Commission i.e. 2019-2020.

Aim of the Mission:

It aims to inter-alia supplement farm income of farmers with focus on the development of complete value chain of bamboo sector linking growers with industry.

Implementation:

The scheme is being implemented in non-forest Government land, farmers field in States where it has social, commercial and economical advantage, including the bamboo rich States of North Eastern region and Madhya Pradesh, Maharashtra, Chhattisgarh, Odisha, Karnataka, Uttarakhand, Bihar, Jharkhand, Andhra Pradesh, Telangana, Gujarat, Tamil Nadu and Kerala.

Till Now:

88 Bamboo Treatment Units, 464 Product Development/Processing Units, 135 Infrastructure Projects for Promotion and Development of Bamboo Markets, and an area of 15740 ha for plantation has been approved.

Financial Assistance:

- Financial Assistance to North Eastern States is provided in the ratio of 90:10 between Central & State Government.
- A number of consultations have been held with State Governments and Industry to invigorate the bamboo sector in the region.

Background:

About National Bamboo Mission –

The Mission envisages promoting holistic growth of bamboo sector by adopting area-based, regionally differentiated strategy and to increase the area under bamboo cultivation and marketing.

Key Outputs:

- Coverage of 1,05,000 ha area under bamboo in two years by ensuring adequate stocks of selected genetically superior quality planting material.



- Promotion and diversification of bamboo products through establishment of micro, small, medium & large processing units and development of value chain in bamboo.
- Setting up and strengthening of bamboo mandi/bazaars/rural haats, including promoting online trade.
- Enhanced cooperation within the country related to research, technology, product development, machinery, trade information and knowledge sharing platform particularly for NE States to give a boost to the low key bamboo based industry in the country.

Mission Structure:

The NBM will be a sub-scheme of National Mission on Sustainable Agriculture (NMSA) under the umbrella scheme Krishonnati Yojana.

Funding Pattern:

- 60:40 between Centre and State Govt. for all States (excepting NE & Hilly states),
- 90:10 for the NE & Hilly States, and
- 100% for Union Territories/R&D Institutes/Bamboo Technology Support Groups (BTSGs) and National Level Agencies.

Science and Technology

33. IIT Madras team produces gas hydrates under 'space' conditions

Why in news?

Indian Institute of Technology (IIT) Madras produces gas hydrates under space conditions.

Important Facts:

- Experiment has shown that methane and carbon dioxide (CO₂) can exist as gas hydrates at temperatures and pressures seen in interstellar atmosphere.
- In terrestrial conditions, gas hydrates are formed naturally under the sea bed and glaciers under high pressure, low temperature conditions.

What are Gas Hydrates?

- The term "gas hydrates" refers to crystalline compounds that are composed of water and any of the following light molecules: methane, ethane, propane, iso-butane, normal butane, nitrogen, carbon dioxide, and hydrogen sulfide etc.
- Hydrate formation usually occurs when water molecule exists in the vicinity of these molecules at temperatures above or below the ice point and relatively high pressure. The water molecules enclose these host molecules and form cage-like structures which are stable at these conditions.
- Hydrates are usually stable at moderate temperatures and pressures when compared to the conditions required for LNG and CNG.

Applications

- Methane hydrate is a potential source of natural gas
- CO₂ storage in hydrates within the seafloor or in old petroleum wells offer a stable and long term means for carbon capture.
- In particular, under appropriate conditions (typically <10°C and with hydrostatic heads >400 m) CO₂ hydrate becomes stable, and this could help immobilize CO₂.
- CO₂ hydrate is thermodynamically more stable than methane hydrate. So if methane hydrate has remained stable for millions of years under the sea bed, it would be possible to sequester gaseous CO₂ as solid hydrate under the sea bed.

Gas Hydrate Decomposition

- Natural gas hydrate is widely distributed in oceans and polar regions, and its gas resources are 10 times more than global conventional gas reserves and twice the total carbon content in all the coal, petroleum, and natural gas in the world.

34. Transiting Exoplanet Survey Satellite

Context:

Nasa which launched Transiting Exoplanet Survey Satellite (Tess) for searching exoplanets in April, 2018 has discovered a third small planet outside our solar system.

THE NEW PLANET:

The new planet is named HD 21749b. The newly discovered planet orbits a bright and nearby star which is about 53 light years away in the constellation Reticulum. HD 21749b appears to have the longest orbital period of the three planets so far identified by Tess. The surface of the new planet is hotter than 100 degrees Celsius.



About TESS mission:

- The Transiting Exoplanet Survey Satellite (TESS) is a NASA mission that will look for planets orbiting the brightest stars in Earth's sky. It was led by the Massachusetts Institute of Technology with seed funding from Google.
- **Mission:** The mission will monitor at least 200,000 stars for signs of exoplanets, ranging from Earth-sized rocky worlds to huge gas giant planets. TESS, however, will focus on stars that are 30 to 100 times brighter than those Kepler examined. This will help astronomers better understand the structure of solar systems outside of our Earth, and provide insights into how our own solar system formed.
- **Orbit:** TESS will occupy a never-before-used orbit high above Earth. The elliptical orbit, called P/2, is exactly half of the moon's orbital period; this means that TESS will orbit Earth every 13.7 days. Its closest point to Earth (67,000 miles or 108,000 kilometers) is about triple the distance of geosynchronous orbit, where most communications satellites operate.

How it works?

It will use transit method to detect exoplanets. It watches distant stars for small dips in brightness, which can indicate that planet has passed in front of them. Repeated dips will indicate planet passing in front of its star. This data has to be validated by repeated observations and verified by scientists.

Significance of the mission:

TESS is designed to build on the work of its predecessor, the Kepler space telescope, which discovered the bulk of some 3,700 exoplanets documented during the past 20 years and is running out of fuel.

Nasa expects to pinpoint thousands more previously unknown worlds, perhaps hundreds of them Earth-sized or “super-Earth” sized – no larger than twice as big as our home planet.

Those are believed the most likely to feature rocky surfaces or oceans and are thus considered the best candidates for life to evolve. Scientists have said they hope TESS will ultimately help catalog at least 100 more rocky exoplanets for further study in what has become one of astronomy’s newest fields of exploration.

35. Jaitapur: A risky and expensive project

Why in news?

- India has initiated the process of importing six nuclear European Pressurised Reactors (EPRs) more than a decade ago, but the project had made little progress due to concerns about the economics and safety of the EPRs.
- However, recently the government has taken several steps towards actuating the project without considering the safety factor and people concern.

Why there is concern?

Economic Factors:

- Jaitapur project will be more expensive than many other sources of electricity, including solar and wind power
- While nuclear costs have been rising, other low-carbon sources of electricity, especially solar energy, have become cheaper.
- Even across the world, EPRs have experienced delays and cost increases for Instance:
- The first EPR entered commercial operation in December 2018 at the Taishan site in China, five years later than originally projected. Its final capital cost was estimated by industry sources to be “40% over the original estimate.
- The EPR at Flamanville in France, for example, went from an expected start date of 2012 to 2020, and a cost estimate of €3.3 billion to €10.9 billion.
- The British National Audit Office assessed that the project locked consumers into a risky and expensive project with uncertain strategic and economic benefits.

Safety Issues:

- In addition to the high costs, safety problems with the reactor design and construction have emerged in several EPRs.
- The most serious of these pertained to the pressure vessel, which is the key barrier that prevents the spread of radioactive materials from the reactor

- The Flamanville project was also found to have substandard welding in the reactor's pipes.
- The EPR at Olkiluoto in Finland encountered problems with vibrations in the pipe that connects the primary coolant system with the pressurizer, which maintains the pressure of the water circulating in the reactor.

Compensation issue:

- The nuclear liability law would require the public sector NPCIL to compensate victims and pay for clean-up, while largely absolving French state-run power utility EDF of responsibility.
- The Indian law provides NPCIL with a limited opportunity to obtain compensation from EDF for the supply of equipment with defects or sub-standard services.
- Enforcement of India's rules is in accordance with the international Convention on Supplementary Compensation for nuclear damage, which severely limits the operator's right of recourse.
- Since EDF can escape with limited or no consequences even after a severe accident, it has little material incentive to maintain the highest safety standards.

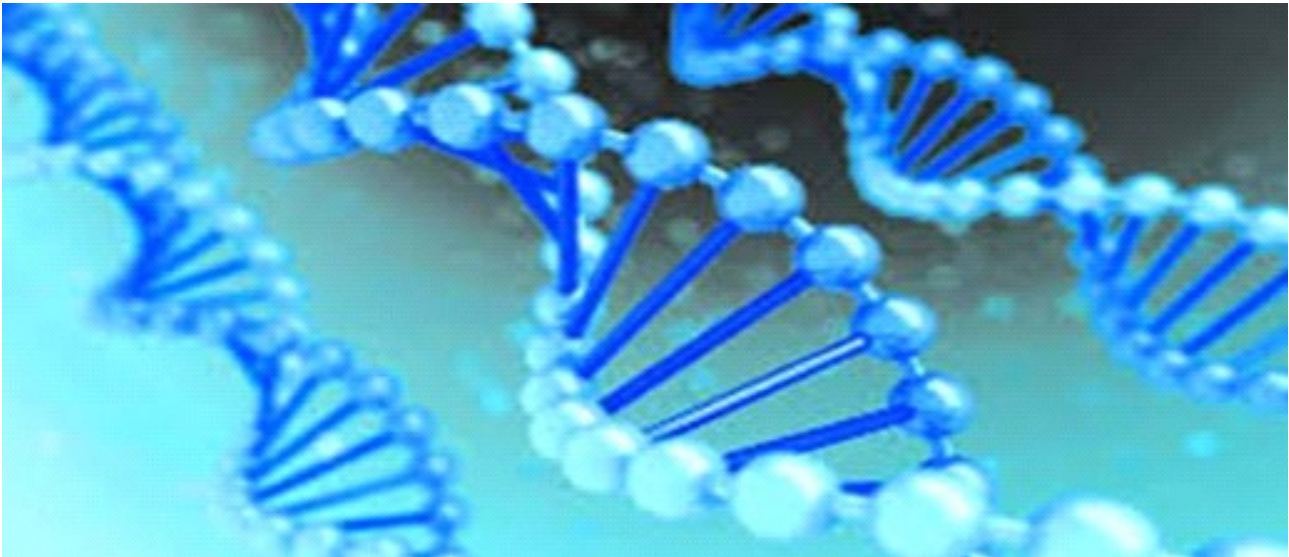
36. The DNA Technology (Use and Application) Regulation Bill, 2018

Context:

The Lok Sabha on Jan 8 passed a Bill that allows regulated use of DNA technology to establish the identity of certain defined categories of persons, including offenders, suspects, and undertrials.

Highlights of the Bill:

- The Bill regulates the use of DNA technology for establishing the identity of persons in respect of matters listed in a Schedule. These include criminal matters (such as offences under the Indian Penal Code, 1860), and civil matters such as parentage disputes, emigration or immigration, and transplantation of human organs.
- The Bill establishes a National DNA Data Bank and Regional DNA Data Banks. Every Data Bank will maintain the following indices: (i) crime scene index, (ii) suspects' or undertrials' index, (iii) offenders' index, (iv) missing persons' index, and (v) unknown deceased persons' index.
- The Bill establishes a DNA Regulatory Board. Every DNA laboratory that analyses a DNA sample to establish the identity of an individual has to be accredited by the Board.
- Written consent by individuals is required to collect DNA samples from them. Consent is not required for offences with punishment of more than seven years of imprisonment or death.



- The Bill provides for the removal of DNA profiles of suspects on filing of a police report or court order, and of under trials on the basis of a court order. Profiles in the crime scene and missing persons' index will be removed on a written request.

Key Features of the Bill:

Use of DNA Data:

- The Bill regulates DNA testing for identification of persons, in respect of matters listed in the Schedule. This includes offences under the Indian Penal Code, 1860, as well as offences under other laws such as the Immoral Traffic (Prevention) Act, 1956, the Medical Termination of Pregnancy Act, 1971, the Protection of Civil Rights Act, 1955, and the Motor Vehicles Act, 1988.
- The Schedule also allows for DNA testing in certain civil matters. This includes matters such as parentage disputes, issues related to pedigree, immigration or emigration, assisted reproductive technologies, transplantation of human organs, and for the establishment of individual identity.

Consent for collecting bodily substances:

- In case of a person arrested for an offence which carries punishment upto seven years, the authorities are required to obtain his written consent before collecting his bodily substances. If consent is not given, the authorities may approach a Magistrate who may order the taking of bodily substances from the individual, if he is satisfied that DNA will confirm or disprove the individual's involvement in the alleged offence. If the offence carries a punishment of more than seven years of imprisonment or death, consent is not required.
- If a person is a victim, or relative of a missing person, authorities are required to obtain their written consent to collect bodily substances. In case of a minor or disabled person, the written consent of the parent or guardian is required. If consent is not given, the authorities may

approach a Magistrate who may order taking of the bodily substances of the person.

Accreditation of DNA Laboratories:

- Any laboratory that conducts DNA testing and analysis to establish the identity of an individual (in respect of matters listed in the Schedule) is required to obtain accreditation from the DNA Regulatory Board. Accreditation will be valid for two years.
- The Board may revoke accreditation for reasons including, failure to: (i) undertake DNA testing, or (ii) comply with the provisions of the Act or conditions attached to the accreditation. If accreditation is revoked, an appeal will lie before the central government or any authority notified by the central government.
- Every DNA laboratory is required to follow standards of quality assurance in collection, storing, testing, and analysis of DNA samples.

DNA Data Bank:

- The central government will establish a National DNA Data Bank and Regional DNA Data Banks for each state, or two or more states, as it may deem necessary.
- Every DNA Data Bank is required to maintain the following indices based on DNA testing conducted by a DNA laboratory: (i) crime scene index, (ii) suspects' or undertrials' index, (iii) offenders' index, (iv) missing persons' index, and (v) unknown deceased persons' index.

Sharing of DNA data with Data Banks:

- All DNA laboratories will share DNA data prepared by them with the National and Regional DNA Data Banks.
- In criminal cases, the laboratory is required to return the biological sample to the investigating officer after depositing the DNA profile with the DNA Data Banks. In all other cases, the laboratory will destroy the sample and inform the concerned person.

Removal of DNA profiles:

- DNA profiles in the crime scene index or missing persons' index will be removed from the DNA Data Banks on the basis of a written request by the individual. The DNA profile of a suspect will be removed after the filing of a police report or as per a court order. In the case of an undertrial, the DNA profile will be removed on the basis of a court order.

DNA Regulatory Board:

- The Bill provides for a DNA Regulatory Board, which will supervise DNA Data Banks and DNA laboratories. The Secretary in the Department of Biotechnology will be the ex-officio Chairperson of the Board.

- The Board will comprise an additional 12 members including: (i) experts in the field of biological sciences, (ii) Director General of the National Investigation Agency, (iii) Directors of the Central Bureau of Investigation, Centre for DNA Fingerprinting and Diagnostics, Central Forensic Science Laboratory, and (iv) Member of the National Human Rights Commission.
- The functions of the Board include: (i) supervising DNA laboratories and DNA Data Banks, including quality control, (ii) granting accreditation to DNA laboratories, and (iii) developing modules for training manpower to deal with DNA related matters. Further, the Board will make recommendations to the central government on privacy protection in relation to the use and analysis of DNA samples.
- The Board is required to ensure that all information relating to DNA profiles with Data Banks, DNA laboratories, and other persons are kept confidential. DNA data may only be used for the identification of persons.

Criticism against the Bill:

- The Bill requires consent of the individual when DNA profiling is used in criminal investigations and identifying missing persons. However, consent requirements have not been specified in case of DNA profiling for civil matters.
- DNA laboratories are required to share DNA data with the Data Banks. It is unclear whether DNA profiles for civil matters will also be stored in the Data Banks. Storage of these profiles in the Data Banks may violate the right to privacy.
- DNA laboratories prepare DNA profiles and then share them with DNA Data Banks. The Bill specifies the process by which DNA profiles may be removed from the Data Banks. However, the Bill does not require DNA laboratories to remove DNA profiles. It may be argued that such provisions be included in the Bill and not left to regulations.
- It does not specify which parts of an individual's DNA can be analysed to ascertain their identity. The more parts are subjected to analysis, the more conclusively a person's identity can be established

Way forward:

To balance the tension between these responsibilities, the Bill should've specified which parts of the DNA could be sequenced and which not. There is a need to address the issues related to privacy and consent clauses.

37. NASA's probe discovers a new planet

Context:

Recently NASA's latest planet-hunting probe has discovered a new world outside our solar system, orbiting a dwarf star 53 light years away.

Key facts:

- The planet, named HD 21749b, orbits a bright, nearby dwarf star about 53 light years away, in the constellation Reticulum, and appears to have the longest orbital period of the three planets so far identified by TESS.
- This is the third new planet confirmed by the Transiting Exoplanet Survey Satellite (TESS) since its launch in April last year.
- HD 21749b journeys around its star in a relatively leisurely 36 days, compared to the two other planets — Pi Mensae b, a “super-Earth” with a 6.3-day orbit, and LHS 3844b, a rocky world that speeds around its star in just 11 hours.
- The planet is about three times the size of the earth, which puts it in the category of a “sub-Neptune.”
- However, it is unlikely that the planet is rocky and therefore habitable; it's more likely made of gas, of a kind that is much denser than the atmospheres of either Neptune or Uranus.

Miscellaneous

38. Mission Raksha Gyan Shakti:

To migrate from the culture of seeking Transfer of Technology (ToT) from foreign sources to generating Intellectual Property in India, to achieve the goal of self-reliance in Defence sector.

39. Innovations for Defence Excellence (iDEX)

- It is a scheme of Department of Defence Production (DDP), formulated in collaboration with Start Up India and Atal Innovation Mission, with the objective of bringing Start-ups to solve problems of defence production and innovate new technologies required by defence forces and reduce dependence on imported technology.
- iDEX is aimed at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs, Start-ups, Individual Innovators, R&D institutes and Academia and provide them grants/funding and other support to carry out R&D.

40. ShaGun (from the words Shaala and Gunvatta)

- ShaGun has two parts i.e., one is a Repository of good practices, photographs, videos, studies, newspaper articles etc on elementary education, State /UT wise has been developed.
- Its purpose is to showcase success stories and also to provide a platform for all stakeholders to learn from each other, and instill a positive competitive spirit among all the States and UTs.
- The second part is the online monitoring module of Shagun which measures state-level performance and progress against key educational indicators which enables the Government of India and the State and UT Departments of education to conduct real-time assessments which normal paper-based monitoring mechanisms did not allow.
- Through Shagun, the data collection and reporting processes have been simplified; resulting in a totally transparent and efficient system.

41. Shaala Siddhi:

Shaala Siddhi is a School Standards and Evaluation Framework, developed by the National University of Educational Planning and Administration (NUEPA), which enables the schools to self-evaluate based on seven key domains.

42. e-PATHSHALA:

A single point repository of e -resources containing NCERT textbooks and various other learning resources has been developed for showcasing and

disseminating all educational resources including textbooks, audio, video, periodicals, and a variety of other print and non--print materials.

43. Diksha Portal:

The portal envisages helping teachers boost their teaching skills and create their own separate profile with their skills and knowledge, and help in improving quality of education with use of latest technologies in education sector.

44. Rashtriya Gokul Mission:

Department of Animal Husbandry, Dairying & Fisheries has been implementing Rashtriya Gokul Mission with the aim of development and conservation of indigenous bovine breeds.

45. Comprehensive Handloom Cluster Development Scheme:

- Under the CHCDS, need based funding is provided for various interventions like technology upgradation, product development, setting up of Value Addition Centre, Common Facility Centre (CFC), Marketing Complex, Dye House and Corpus Fund for Yarn Depot
- Under the scheme, various projects like setting up of Common Facility Centre, Dye House, Garmenting Unit, Silk Spinning Unit, Automatic Silk Reeling Unit etc. have been taken up in Public Private Partnership (PPP) mode, which are functional.
- The scheme is under implementation in eight mega handloom Clusters i.e. Varanasi (Uttar Pradesh), Sivasagar (Assam), Virudhanagar (Tamil Nadu), Murshidabad (West Bengal), Prakasam & Guntur districts (Andhra Pradesh), Godda & neighbouring districts (Jharkhand), Bhagalpur (Bihar) and Trichy (Tamil Nadu).

46. BhoomiRashi portal:

- In the past years, acquisition of land for the purpose of National Highway projects, payment of compensation to the land owners etc were done manually by physical movement of documents in the form of files.
- However, in that procedure some constraints viz. delay in issuing notification, errors in the land/area details etc were being faced.
- In order to overcome these issues, to cut short delays and avoid parking of public funds with the Competent Authority for Land Acquisition (CALA), Ministry has developed a web-based Utility –BhoomiRashi to fully digitize and automate the entire process of land acquisition.
- With the operation of this Portal, the land acquisition process has been expedited significantly, become error-free and more transparent and the notifications at every stage are being processed on real time basis.

- While the physical processing of the cases usually took considerable time, ranging from weeks to even months, and there were errors whose rectification caused further delays, the processing time using this portal has been reduced to less than two weeks in a majority of cases and even a few days in some cases.

47. Samagra Shiksha scheme

This scheme is focuses on improvement of quality of education by providing support for different interventions like; in-service training of teachers and schools heads, conduct of achievement surveys at National and State level, provision of textbooks as per Right of Children to Free and Compulsory Education (RTE) Act, 2009, remedial teaching for academically weaker students, ICT and digital initiatives, vocational education, composite school grant to every school for providing a conducive learning environment has been increased and from this year provisions for library grants and grants for sports and physical education have also been introduced.

48. Geographical Indications (GIs)

GI's are registered as per the provisions of the Geographical Indications of Goods (Registration & Protection) Act, 1999. As on 24.12.2018, 330 GIs have been registered.

- GIs have been defined under Article 22(1) of the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement as: "Indications which identify a good as originating in the territory of a member, or a region or a locality in that territory, where a given quality, reputation or characteristic of the good is essentially attributable to its geographic origin."
- The GI tag ensures that none other than those registered as authorised users (or at least those residing inside the geographic territory) are allowed to use the popular product name.
- Darjeeling tea became the first GI tagged product in India, in 2004-05



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+	



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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

