

Indian Culture And Heritage**International Buddhist Conclave 2018****In News**

- The **International Buddhist Conclave (IBC) 2018** held in India saw participation from **29 countries** having significant Buddhist population.
- The **biennial Conclave** was organized by the **Ministry of Tourism** in collaboration with the State Governments of Maharashtra, Bihar and Uttar Pradesh.
- **Japan** was the partner country.
- The 4 days Conclave was held at New Delhi and Ajanta (Maharashtra), followed by site visits to Rajgir, Nalanda and Bodhgaya (Bihar) and Sarnath (UP).
- The aim of the Conclave was to **boost tourism** to the Buddhist sites in the country and **cultivate friendly ties** with countries and communities interested in Buddhism.
- The theme of the conclave was **“Buddha Path – The Living Heritage”**.
- During the conclave, The President of India also launched the Ministry of Tourism **website on important Buddhist sites - indiathelandofbuddha.in**.

INTACH (Indian National Trust for Art and Cultural Heritage)**In News**

- **INTACH** has called for transforming heritage buildings in Rajasthan into “economic assets” for the society. Economic benefits could be derived from these properties as an alternative to paying for their upkeep on a regular basis.
- It has launched an exercise for mapping of natural heritage in Thar desert with the participation of local communities for modern planning.
- **INTACH** is a **non-profit charitable organization** working for conserving the cultural heritage of India.
- In 1984, INTACH was established as a Registered Society under the **Societies' Registration Act, 1860**. It is **Headquartered in New Delhi**.
- In 2007, UNESCO granted INTACH a **‘special consultative status’**.

11th World Hindi Conference**In News**

- The 11th World Hindi Conference was held in **Port Louis** (capital of Mauritius) *with the theme “Hindi World and Indian Culture (Hindi Vishwa Aur Bharatiya Sanskriti)”*.
- **Ministry of External Affairs (MEA)** is the nodal Ministry of the conference.

- The **1st World Hindi Conference** was held in 1975 in **Nagpur**, with a pledge to develop, enhance and conserve Hindi language in its original form. To commemorate this event, every year 10th January is being observed as **World Hindi Day**.
- MEA has also established a **World Hindi Secretariat in Mauritius** for working towards recognition of Hindi at the United Nations as an Official Language.

Project Navlekha

In News

- At the fourth 'Google for India' event, Google unveiled **Project Navlekha** to bring India's 135,000 Indic language publications online in a hassle-free manner.
- Navlekha, which means '**a new way to write**' in Sanskrit, will allow local publishers who do not have websites (around 90%) to make their offline content fit for online publishing in less than a minute.
- It comprises a tool that uses Artificial Intelligence (AI) to render any PDF containing Indian language content into editable text, making it easy for print publishers to create mobile-friendly web content.
- The platform will first be rolled out to Hindi publications and will later be extended to other Indic languages.
- Google will offer free hosting, a branded domain for the first three years, and AdSense (its ad platform) support so that publishers can start monetizing their content immediately.

Seva Bhoj Yojana

In News

- The Ministry of Culture has launched a new scheme namely **Seva Bhoj Yojana** with a total outlay of Rs. 325 Crores for financial years 2018-19 and 2019-20.
- The scheme envisages to reimburse the Central Government share of CGST and IGST on Food/Prasad/Langar offered by Religious/Charitable Institutions **to reduce the financial burden of such charitable or religious institutions** who provide food free of cost without any discrimination to public/ devotees.
- The GST is not levied on food served, but is charged on the purchase of raw material used to prepare the food.
- The scheme applies to only those charitable or religious institutions — temple, gurdwara, mosque, church, dharmik ashram, dargah, and monasteries — that have been **in existence for at least 3 years** before applying for grant, and who **serve free food to at least 5,000 people a month**.

Society

Delhi Police Gets India's First All-Women SWAT Team

In News

- Delhi Police is the first police force in the country to have an all-women **Special Weapons And Tactics (SWAT) team**.
- Trained by specialists from India and abroad, 36 women constables from northeastern states have been inducted into the squad after a rigorous 15-month training. It is the brainchild of police commissioner Amulya Patnaik.
- They are trained in the Israeli Krav Maga, an unarmed combat style and equipped with MP5 submachine guns and Glock 21 pistols.
- They are experts at unarmed combat, ambush and counter ambush, jungle operation, urban operation which includes building interventions, vehicle/bus intervention and VVIP security. They have also been imparted basic knowledge of explosives and IEDs apart from being trained to use a wide array of weapons.
- India's police force is overwhelmingly male with official data showing **just over 7 % of all officers as women**, well below a government target of 33 per cent. These women broke the traditional male stronghold to enter the SWAT team.
- These commandos will be stationed at strategic locations in central and south Delhi. Many of them would be posted in **anti-terror vans called Parakram**.
- The formation of this team is being considered a big achievement as most western countries do not have all-women SWAT teams due to the kind of training required to become one.

Permanent Commission For Women In Armed Forces*Syllabus: Role Of Women And Women's Organization***In News**

- In his Independence Day speech, the Prime Minister announced that women officers of Short Service Commission in the Indian Armed Forces would now be eligible for permanent commission.
- So far, women officers are recruited mostly on short service commission (SSC) for 14 years, which means they are not eligible to get pension.
- While women are given SSC in all arms and services other than infantry, mechanized infantry, armored and Artillery, **permanent commission is currently limited to education, legal branches apart from medical and dental services**.
- Back in 2010, the Delhi High court had ordered to give women officers the right to opt for the permanent commission in the Indian Army.

Comment

The move would **empower women in armed forces**. However, there was **no clarification on the extent to which women will be allowed in the Army, Navy and the Air Force** i.e. whether

permanent commissioning of women will pave the way for their entry into the combat positions in the Army. Unlike the Army, the IAF and Navy have opened up select combat roles for women.

Ease of Living Index

Syllabus: Urbanization, Their Problems, and Their Remedies

In News

- The **Ministry of Housing and Urban Affairs** has released the **Ease of Living Index**. It was conceived in 2017 and is based on information from the **2011 Census**.
- The index covers 111 cities that are smart city contenders, capital cities, and cities with population of 1 million plus.
- It is a government initiative to **assess cities' 'liveability'** with regards to global and national benchmarks and encourage them to move towards an **outcome based approach in urban planning and management**.
- The assessment standards are closely linked to the Sustainable Development Goals, which will provide a strong impetus to India's effort for systematic tracking progress of SDGs in the urban areas.
- The index captures the quality of life based on the data collected from the urban local bodies on **four parameters**, which were further broken down into 15 categories. The four parameters include **governance**, **social** (identity, education, health, security), **economic** (economy, employment) and **physical factors** (waste water and solid waste management, pollution, housing/inclusiveness, mixed land use, power and water supply, transport, public open spaces).
- The weight assigned to different parameters are Governance 25%, Social Aspects 25%, Economic Aspects 5%, and Physical Infra 45%, .
- The list was led by the Maharashtrian cities of **Pune, Navi Mumbai, and Greater Mumbai** while the cities of **Patna and Rampur** were at the bottom.
- The low scores of a lot of cities, especially ones that attained a zero in certain categories, doesn't mean that those services are absent from those cities. In certain cases, there was no data to pass on because cities themselves are starved of data. For instance, public authorities don't always have the data from private hospitals.
- Top 10 cities include: 1. Pune 2. Navi Mumbai 3. Greater Mumbai 4. Tirupati 5. Chandigarh 6. Thane 7. Raipur 8. Indore 9. Vijayawada 10. Bhopal
- Bottom 10 cities include: 102. Silvassa 103. Saharanpur 104. Kavaratti 105. Pasighat 106. Itanagar 107. Bhagalpur 108. Bihar Sharif 109. Patna 110. Kohima 111. Rampur

Why We Need Such Ranking

- Such rankings would promote a sense of healthy competition among cities and towns.
- They will be forced to focus their attention on improving governance and infrastructure availability.

- More than providing funds to State and City Governments, there is urgent need to accord priority for incentivizing implementation of reforms that have a far-reaching impact on governance and service delivery.
- Also, cities can't be run and managed from state capitals and secretariats. They should be made to stand on their own for improving performance, responsibility and accountability”.
- In this context, this exercise is a forward step in the right direction.

Global Liveability Index

Syllabus: Urbanization, Their Problems, and Their Remedies

In News

- The **Economist Intelligence Unit (EIU)**, which is part of the magazine ‘The Economist’, has released the Global Liveability Index.
- The index quantifies the challenges that might be presented to an individual's lifestyle in 140 cities worldwide, and assesses which locations provide the best living conditions.
- It assigns scores on **five broad parameters — stability, healthcare, culture/environment, education, and infrastructure** using 30 indicators.

Ranking

- **Austria's capital Vienna is ranked as the best city to live in**, displacing Australian city of Melbourne. It is for the first time that a European city has topped the list.
- Top 10 liveable cities are – 1. Vienna (Austria) 2. Melbourne (Australia) 3. Osaka (Japan) 4. Calgary (Canada) 5. Sydney (Australia) 6. Vancouver (Canada) 7. Tokyo (Japan) 8. Toronto (Canada) 9. Copenhagen (Denmark) 10. Adelaide (Australia)
- South Asian countries including India have fared poorly in the ranking of the world's most liveable cities.
- Top 10 least liveable cities in the world are - Senegal's Dakar at 131, Algeria's Algiers at 132, Cameroon's Douala at 133, Libya's Tripoli at 134, Zimbabwe's Harare at 135, Papua New Guinea's Port Moresby at 136, Karachi at 137, Nigeria's Lagos at 138, Dhaka at 139, Damascus at 140.
- Crime, civil unrest, terrorism or war played a "strong role" in the ten lowest-scoring cities.
- From India, **only New Delhi (112) and Mumbai (117) could make it to the list.**
- While private health and education are acceptable in both Mumbai and Delhi, the **level and quality of public provision** is well below the global average.
- **High levels of corruption and socio-religious restrictions** also reduce liveability markedly in both cities.

The Economist Intelligence Unit (EIU) is the research and analysis division of The Economist Group and the world leader in global business intelligence.

Created in 1946, it helps businesses, financial firms and governments to understand how

the world is changing and how that creates opportunities to be seized and risks to be managed.

Constitution, Polity, And Governance**SC Rules Out Protest Is A Part Of Polity**

Syllabus: Indian Constitution: Historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

In News

- The Supreme Court has passed an extremely significant order, restoring the right of protest at Jantar Mantar and at India Gate.
- Till the 1980s, Indian citizens had unrestricted rights to hold dharnas, protests and agitations in the Boat Club lawns near India Gate along the Rajpath in Delhi. After the Mahendra Singh Tikait led agitation in 1988, protests at the Boat Club lawns were restricted. The entire Central Delhi region, where several government establishments have their offices turned into a fortress and the fundamental right of the citizens to protest in this area was completely denied.
- With the ban on protests in all of central Delhi, a further ban on protests at Jantar Mantar, was following the National Green Tribunal (NGT) order last year. So, a separate civil appeal was filed challenging the NGT ban on protests at Jantar Mantar.

Importance Of Right To Protest

- **Crucial role:** Protests play a crucial role in the civil, political, economic, social and cultural landscape of any progressive democracy.
- **Bring radical transformation:** Peaceful resistance has been pivotal in bringing about radical positive transformation in the country's socio-political fabric.
- **Protest where it's most visible:** The essence of this fundamental right, as elucidated in international standards and verdicts of courts in other countries, is that protests will be held at places where they are most visible *i.e.* near the seat of power.
- **SC decision:** The courts have also upheld that a citizen's fundamental right to protest and assemble peacefully without arms is a distinguishing feature of a democracy. In **Anita Thakur and Ors v. Government of J & K and Ors (2016)**, the Supreme Court pointed out: "We can appreciate that holding peaceful demonstration in order to air their grievances and to see that their voice is heard in the relevant quarters is the right of the people. Such a right can be traced to the fundamental freedom that is guaranteed under **Articles 19(1)(a), 19(1)(b) and 19(1)(c)** of the Constitution."

Hurdles

- **Room for executive intervention:** The judgment seems to leave a lot of scope for executive intervention as the police commissioner will frame the regulations for the limited use of designated spaces. Thus, the idea of prior permission for protests also severely restricts the fullest realization of a constitutional right and subjects the exercise of this right to executive discretion.
- **Technology as justification for restricting this right:** In upholding the right and yet SC stated that citizens cannot demand a particular place for protest in the age of technology and social media.

But the Court has ignored how mass organisations of farmers, Dalits, Adivasis, landless workers are far removed from the advances in digital technology or lack the means of harnessing them for dissent. Moreover, social media can't be a substitute for physical assembly and protest.

- **Further dilution:** Subjecting the exercise of the right to the sensitivities of foreign dignitaries or high functionaries using the area is an unreasonable restriction. Thus, it amounts to a dilution of this right.

Punjab House Passes Bills To Curb Sacrilege

Syllabus: Indian Constitution: Historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

In News

Punjab Assembly unanimously passed Bills for an amendment to the Indian Penal Code and the Code of Criminal Procedure to make desecration of all religious texts punishable with life imprisonment. The amendments would need the *assent of the President*.

Provisions Of The Act

- **Imprisonment for life:** The **IPC (Punjab Amendment) Bill, 2018**, has inserted **Section 295AA** to provide that “whoever causes injury, damage or sacrilege to Sri Guru Granth Sahib, Srimad Bhagavad Gita, the Holy Quran and the Holy Bible with the intention to hurt the religious feelings of the people shall be punished with imprisonment for life.
- **Amendment in Section 295:** It also states, In the IPC, 1860, in its application to the State of Punjab in **Section 295**, for the words “**two years**” the words “**10 years**” shall be substituted.

Negative Implications

- **Sign of intolerance & authoritarianism:** As we have seen in the case of neighboring Pakistan, the progressive strengthening of anti-blasphemy laws during 1970s was a sign of a toxic combination of greater intolerance and authoritarianism.
- **Leads to conflict:** Making religious sentiments the basis for law, is a recipe for competitive political mobilization and conflict and not of peace.
- **Against secularism:** Using the state power to enforce the sacred aspect of the religion messes with the concept of secularism.
- **New law was not needed:** There are already Sections such as **Section 295-A** and **Section 153-A** of the IPC that give scope to prosecute people in the name of protecting the feelings of a section of society. Thus there was no need for a new law.
- **Chances of misuse:** The proposed amendments are vaguely worded so there is a chance of misuse of the said provisions. Moreover, it has sparked fears of misuse by the ruling dispensation to subdue and silence political opponents and the weak and to restrict the freedom of expression and protest in general.

Way forward

There are already laws in the IPC that only need to be implemented more impartially and efficiently to keep and enforce the communal peace.

The No Confidence Motion

Syllabus: Parliament and State Legislatures- structure, functioning, conduct of business, powers & privileges and issues arising out of these.

In News

- **Introduction:** After 15 years, Lok Sabha has debated a No confidence motion (NCM). In a parliamentary democracy, a government can be in power only if it commands a majority in the directly elected House. **Article 75(3)** of our Constitution embodies this rule by specifying that the Council of Ministers are collectively responsible to Lok Sabha.
- **Lok Sabha rule on NCM:** The rules of Lok Sabha provide a mechanism for testing this collective responsibility. They allow any Lok Sabha MP who can garner the support of *50 colleagues*, to introduce a motion of no confidence against the Council of Ministers. Thereafter, a discussion on the motion takes place. MPs who support the motion highlight the government's shortcomings and the Treasury Benches respond to the issues they raise.
- **History of NCM:** It was during the **third Lok Sabha** in 1963 that the first one was moved by **Acharya J B Kripalani** against the government headed by Prime Minister Jawaharlal Nehru. The first no-confidence motion that led to the falling of a government was moved by **Y B Chavan** in 1979 against the government of Prime Minister Morarji Desai. This time it will be **the 27th** No confidence motion in our Parliamentary history.

NITI Aayog Proposes Nodal Energy Ministry

Syllabus: Structure, organization, and functioning of Executive and Ministries/Departments

In News

- The NITI Aayog has proposed in *Draft National Energy Policy* a common nodal Energy Ministry on the lines of the model followed in various other countries. The National Energy Policy, which has been in the works since 2015 will replace the Integrated Energy Policy of the erstwhile UPA government and lay the road map for the government's push towards clean energy and reducing fuel imports. The broad objectives of the policy are enhanced energy independence, increased access at affordable prices, greater sustainability and higher economic growth.
- The Aayog has proposed setting up of a single, all-powerful nodal ministry under which all existing ministries can be subsumed.

Benefits

- **Resolve issues between different ministries:** If implemented, the proposal would help sort out governance issues among the ministries of petroleum and natural gas, power, coal, new and renewable energy, and the Department of Atomic Energy.
- **Speed up reform process in Energy sector:** With one common ministry all crucial decisions would be taken unilaterally with no inter-ministerial differences, which in turn would speed up the reform process in the sector.
- **Speed up decision-making:** The setting up of unified Ministry will also speed up decision-making process.

Increasing The Retirement Age Of Judges

Syllabus: Structure, organization, and functioning of Judiciary and Related Issues

In News

- The idea of increasing the age of retirement, which has gained traction in recent times has now been brought into sharp focus by Justice Kurian Joseph of the Supreme Court.
- The issue of increasing the age of retirement for judges featured in the **Venkatachaliah Report** (Report of the National Commission to review the working of the Constitution) as early as 2002. A half-hearted attempt was made in 2010 to bring in the Constitution (**114th Amendment**) Bill to raise the retirement age of High Court judges to 65 from 62 years. The amendment never came through.

Need For Increasing Retirement Age

- **The case in Western democracies:** A retirement age of around 70 for judges is commonplace in most Western liberal democracies. Some of them even opt for tenures for life. In the Supreme Court of the United States and in constitutional courts in Austria and Greece, judges are appointed for life. In Belgium, Denmark, Ireland, the Netherlands, Norway and Australia, the retirement age for judges is 70 years. Judges in Canada and Germany retire at 75 and 68, respectively.
- **Bring in years of experience:** The time has come for India to consider increasing the retirement age for judges of the High Courts and the Supreme Court to 70. This will have significant benefits as senior serving judges will bring with them years of experience.
- **Dealing with backlog of cases:** The backlog of cases is touching 3.3 crore. According to **National Judicial Data Grid data**, more than 2.84 crore cases are pending in the subordinate courts, 43 lakh cases are pending before the High Courts, and 57,987 cases are pending before the Supreme Court. The fact that judges in India are retiring at 62 and 65 years is not helping alleviate this problem either. Thus increasing the retirement age will address the problem of mounting arrears.
- **Act as a buffer:** One aspect, which is as the Indian economy grows, the ratio of litigation to population will increase exponentially. Advanced economies such as Australia, Canada, France, the U.S., the U.K. and Japan have much higher litigation to population ratios. Thus, it will be a buffer against impending litigation explosion.

- **Independence of judiciary:** It will ensure and render post-retirement assignments unattractive and as a consequence, strengthen the rule of law and the independence of the judiciary, both of which are crucial to sustain democracy.

Way forward

The judge-population ratio in India is among the lowest in the world at **19.66 judges per million** people as of today. In 2016, the U.K. had 51 judges per million people, the U.S. had 107, Australia had 41 and Canada had 75. Thus it is also necessary at the same time to increase the number of judges in the pool to enable the judiciary to deal with the enormous pendency of cases.

SC Asks States To Appoint Managers To Unclog Courts

Syllabus: Structure, organization, and functioning of Judiciary and Related Issues

In News

- The Supreme Court has recently ordered state Chief Secretaries to form panels, which would ensure that each District or Sessions Court would have a manager armed with an MBA degree to unclog subordinate courts.
- The subordinate courts in the country are creaking under the weight of over **2 crore cases**.

Benefits

- **Efficiency improvement:** Such court managers would enable district judges to devote more time to their core work *i.e.* judicial functions. This in turn, would enhance the efficiency of the district judicial system.
- **Identify weakness to resolve the same:** These court managers would also help in identifying the weaknesses in the court management systems and recommending workable steps under the supervision of their respective judges for rectifying the same.

Prison Reforms

Syllabus: Structure, organization, and functioning of Judiciary and Related Issues

In News

The Supreme Court has decided to constitute a committee under the chairmanship of a retired Supreme Court judge to suggest measures for reforming the Prisons.

Issues in Jails

- Over **two-thirds of India's prisoners are undertrials** despite the **Section 436A of the Code of Criminal Procedure** stipulating that a prisoner shall be released on bail if he/she has undergone detention of half the maximum period of imprisonment specified.
- **Lok adalats are not held regularly in prisons** which are essential for disposal of petty offences for undertrials.
- In many jails, **overcrowding is over 150 per cent** due to lack of sufficient capacity in prisons and presence of undertrials.

- Medical facilities and general conditions of **hygiene & food in the jails** are not satisfactory.
- **Counselling centers in prisons are inadequate** which are important for young offenders and mentally sick prisoners who need special attention.
- There is **no proper curriculum for education** in many prisons due to which the prisoners fail to get decent jobs after their release.
- **Shortage of Prison staff (around 30%) and poor training** received by them renders the management of prisons ineffective.
- There is a lack of separate provision for **women jails** at many places. Also, there is shortage of female doctors for women prisoners.
- The court is also concerned about **children who have to live in jail with their jailed mothers** up to the age of six.
- Several states have not yet appointed the **board of visitors** who regularly inspect prisons to ensure that they are being run in accordance with rules.

Way Forward

- **Provide free legal aid for those who can't afford it.** This will help prisoners in understanding their legal rights and legal procedure about filing appeals.
- **Sensitization programs and training sessions** should be conducted regularly to check hygiene and control health problems in prisons.
- To minimize the incidents of jail wars or fights between inmates, proper **security arrangements should be deployed through the optimal use of ICT.**
- Recruit more **psychologists** to understand the mental condition of prisoners and to reform them.
- **Offer futuristic job-oriented courses** to prisoners which could provide them a decent life after serving the prison term.
- There should be **regular and periodic training** of personnel who deal with inmates to improve jail administration.
- **Shift the subject of 'prisons' from state list to concurrent list** for achieving uniformity across the nation in formulation and implementation of prison provisions.

Two Constituency Norm

Syllabus: Elections and Representation of People's Act

In News

- The government has objected to a plea in Supreme Court to stop candidates from contesting from two different constituencies.
- A Bench led by Chief Justice of India Dipak Misra is hearing the petition filed by advocate Ashwini Upadhyay seeking a declaration that **Section 33(7)** of the Representation of the People Act of 1951, which allows candidates to contest from two constituencies at a time as invalid and

unconstitutional. Before the amendment, candidates could contest from any number of constituencies.

In Favour Of Two Constituency Norms

- **Curtails rights of contesting and choosing:** Such a limitation infringes on a person's right to contest the polls and curtails the polity's choice of candidates.
- **Requires legislative amendment:** The government also said that one-candidate-one-constituency restriction would require a legislative amendment.

Opposition

- **Suggested also by EC:** The EC also that it had proposed the amendment of Section 33(7) way back in July 2004. It was one of the 22 urgent electoral reforms the Election Commission had suggested to a Rajya Sabha Parliamentary Standing Committee.
- **Additional labour and expenditure:** The poll body has also pointed out that there have been cases where a person contests election from two constituencies and wins from both. In such a situation he vacates the seat in one of the two constituencies. The consequence is that a by-election would be required from one constituency involving avoidable labour and expenditure on the conduct of that by-election.
- **Suggestion by the EC:** The poll body suggested that a candidate should deposit an amount of **Rs. 5 lakh** for contesting in two constituencies in an Assembly election or **Rs. 10 lakh** in a general election. This would be used to conduct a by election in the eventuality that he or she is victorious in both constituencies and has to relinquish one.

Lok Sabha Passes Bill To Allow NRIs To Vote By Proxy

Syllabus: Elections and Representation of People's Act

In News

- The Lok Sabha passed a bill to amend the Representation of the People Act to allow non-resident Indians (NRI) to vote in elections through a proxy. Earlier many NRIs had complained that they were unable to vote in elections and thus the government had decided to allow proxy voting for them.
- Proxy voting essentially allows an absentee voter to nominate someone else in his constituency to cast his vote.
- According to a UN report of 2015, India's diaspora population is the largest in the world at 16 million. Registration of NRI voters in comparison has been low. In 2014, 11846 people were registered as overseas electors, of whom 11448 were registered in Kerala.

Provisions Of The Bill

- **Amendment bill: The Representation of the People (Amendment) Bill, 2017**, proposes to amend **Section 60** and extend the facility of proxy voting to Indian voters living abroad.
- **Relevant rules: The said rules (Registration of Electors Rules, 1960)** stipulate the physical presence of the overseas electors in the respective polling station in India on the day of polling. This causes hardship to the overseas electors in exercising their franchise by being present in India on the day of polling.

NRI VOTERS & PROXY VOTING

- For 66 yrs, India has held that NRIs need to be present physically to cast votes
- Former Prime Minister Manmohan Singh 1st promised to change laws & consider other options
- On August 3, 2017 even as Cong & other parties opposed, EC, Centre held proxy voting as viable
- 2 other options discarded: postal ballot system (for logistical reasons) & e-voting (for technical issues)
- On December 18, bill to allow proxy voting introduced in Lok Sabha
- As of December 2016, there were more than **1.3 crore** NRIs
- As of December 2017, only **24,348** of them registered to vote in India
 - 96% or 23,556 of the 24.3k voters registered are from Kerala
 - Punjab a far 2nd with 364 NRI voters, followed by Puducherry (137); TN (49) & Delhi (37)
- Only 14 in Gujarat, and 15 in Andhra Pradesh, while Chandigarh has 11

13 states, including Karnataka, Northeastern states, Jammu & Kashmir, have zero registrations

— Source: Election Commission of India & Government of India

Concerns About NRI Voting

- **Possible misuse:** Several members of the Opposition raised concerns that the proxy voting could be misused.
- **Proxy may not vote as per NRI:** There is also a concern that the proxy chosen by an NRI may not vote as per the NRI's choice.
- **Violates concept of one person one vote:** The Constitution only allows one vote to every person, but the proxy get a chance to vote again.
- **Breaches confidentiality:** The proxy voting will be against the confidentiality of the voting process.
- **Distort level playing field:** There has also been the opposition that the current government has conducted large rallies across countries with NRIs in the audience at the cost of the government money, and smaller parties will not be able to use government machinery in the same manner, thus distorting the level playing field.
- **No proxy voting right for the domestic migrants:** There has also been the opposition that the government should first provide the proxy voting rights to the domestic migrant rather than NRIs as they are more in number. Moreover, there is no reason to place NRI voters on a special footing vis-a-vis Indian voters.

More Assembly Seats for Sikkim

Syllabus: Elections and Representation of People's Act

In News

- **Proposal to increase the seats:** The Home Ministry has moved the Union Cabinet to increase the number of seats in the Sikkim Assembly from **32 to 40**.
- **Inadequate tribal representation:** The seats are being increased to accommodate the **Limboo and Tamang**

Wider representation

The number of seats in Sikkim assembly is set to increase from 32 to 40. A look at the present and the proposed composition of Sikkim Assembly.

Bhutia-Lepchas	12	12
Limboo-Tamang	0	5
Sangha	1	1
Scheduled Castes	2	2
Other communities	17	20

PRESENT SEATS (orange) | PROPOSED SEATS (blue)

communities, notified as Scheduled Tribes in January 2003. Of the eight new seats, five will be reserved for them. A petition was moved in the Supreme Court that Limboos and Tamangs were not adequately represented in the Assembly, and the Court in January, 2016 directed the Home Ministry to take action.

- **Cabinet committee to decide:** The Cabinet Committee on Political Affairs, headed by Prime Minister will soon decide on the proposal. If approved, it will be the first expansion of the Assembly since Sikkim merged with India in 1975.

Supreme Court Quashes NOTA in Rajya Sabha Polls

Syllabus: Elections and Representation of People's Act

In News

- The Supreme Court has recently quashed a June 2014 notification of the Election Commission that had allowed use of the None Of The Above (NOTA) option in Rajya Sabha elections.
- The ruling came on a petition by **Shailesh Parmar**, who was Congress chief whip in Gujarat, challenging the EC decision to allow NOTA in Rajya Sabha polls.
- NOTA was introduced in Lok Sabha polls following a 2013 decision of the Supreme Court. The EC extended this to Rajya Sabha polls via a notification in January 2014.

Justification for Quashing

- **Encourage defection and corruption:** NOTA destroys the concept of value of a vote and representation and encourage defection that opens the doors for corruption.
- **Runs against principle of Anti-defection:** Further where the discipline of the political party/parties matters, it is clear that such choice will have a negative impact. As in the voting in Rajya Sabha elections, there is a whip and the elector is bound to obey the command of the party. The party discipline is of extreme significance. Thus, NOTA in an indirect election would not only run counter to the discipline expected from an elector under the **Tenth Schedule** but also be counterproductive to the basic grammar of the law of disqualification on the ground of defection.
- **Destroys democratic values:** The introduction of NOTA in indirect elections completely ignores the role of an elector in such an election and fully destroys the democratic value. As a candidate after being elected becomes a representative of the State and does not represent a particular constituency. The cumulative effect of all these aspects clearly conveys that the introduction of NOTA to the election process for electing members of the Council of States will be an anathema to the fundamental criterion of democracy, which is a basic feature of the Constitution.
- **For RS NOTA not warranted:** The exercise of NOTA is not warranted in the voting process of the Council of States where open ballot is permissible and secrecy of voting has no room.
- **Against the constitutional provisions:** Moreover the Election Commission cannot sanction the use of NOTA in Rajya Sabha elections by way of mere circulars, which have the effect of overriding

Where it counts

NOTA:

It allows voters to register their protest if none of the candidates is acceptable to them

IN DIRECT ELECTIONS

NOTA has only symbolic value in a direct election

Regardless of NOTA numbers, candidate polling most votes is elected



IN RAJYA SABHA POLLS

- In this indirect poll, legislators elect candidates to the Upper House
- Single transferable vote involves marking order of preference among candidates
- NOTA will alter outcome, as candidates need a particular number of votes to be elected. If first preference is for NOTA, the vote becomes invalid

the provisions of **Article 80(4)**, that provides for proportional representation by means of the single transferable vote.

Cap On Election Expenses By Parties And Candidates

Syllabus: Elections and Representation of People's Act

In News

- At an all-party meeting called by the Election Commission (EC), all major parties except the BJP pushed for a cap on election expenditure by parties.
- The EC has asked the government to amend the **Representation of People's Act** and **Rule 90 of The Conduct of Elections Rules, 1961**, to introduce a ceiling on campaign expenditure by political parties in the Lok Sabha and Assembly polls. And recommended that it should be either 50% of or not more than the expenditure ceiling limit provided for the candidate multiplied by the number of candidates of the party contesting the election.

Current Scenario

- **Limits on expenditure by a candidate:** The EC imposes limits on campaign expenditure incurred by a candidate, not political parties. Expenditure by a Lok Sabha candidate is capped between **Rs 50 lakh and Rs 70 lakh**, depending on the state he/she is fighting from. In Assembly elections, the ceiling is between **Rs 20 lakh and Rs 28 lakh**. This includes money spent by a political party or a supporter towards the candidate's campaign.
- **Applicable law:** Candidates must mandatorily file a true account of election expenses with the EC. An incorrect account, or expenditure beyond the ceiling can attract disqualification for **up to three years** under **Section 10A of The Representation of the People Act, 1951**.
- **No limit on expenditure by political party:** However, expenses incurred either by a party or the leaders of a party for propagating the party's programme are not covered.
- **Effectiveness of cap:** There is evidence to suggest that candidates may be spending beyond their ceilings. An analysis of expenses for the 2014 Lok Sabha elections by the nonprofit **Association for Democratic Reforms (ADR)** found that even though candidates complained that the EC's limits were too low and unrealistic, as many as 176 MPs (33%) had declared election expenses that were less than 50% of the limit in their constituency, indicating that candidates may not be providing true accounts of their poll expenses to the EC.

Purpose Of Imposing Cap On Election Expenses

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

- **Check on use of unaccounted money:** The limit will curb the menace of unaccounted money in elections. It will also control the money power used by political parties and their allies.

Law Commission's View

- **Difficult to monitor:** The Law Commission was against identifying a ceiling for expenditure by parties. The **255th Report** on electoral reforms said that it would be very difficult to fix an actual, viable limit of such a cap and then implement such a cap.
- **Underreporting may prevail:** In any event, as the experience with **Section 77(1)** (which asks candidates to keep correct accounts of all election-related expenditure) reveals that, in the 2009 Lok Sabha elections, on average candidates showed election expenditures of 59% of the total expenses limit. And the same phenomenon of under-reporting will also transpire amongst parties.
- **Past experience:** Further the Law commission added that previous experience in prohibiting corporate donations in 1969 did not lead to a reduction in corporate donations. Instead, in the absence of any alternative model for raising funds, it greatly increased illegal, under the table and black money donations.
- **Parties submit accounts to EC:** Moreover as all parties have to mandatorily file their income and expenditure accounts with the EC, there is no need for a ceiling on expenses during elections.

Panel Recommends For More Powers To SEBI

Syllabus: Constitutional/Statutory/Regulatory/Quasi-Judicial Bodies

In News

- A high-level committee under **T K Viswanathan** on fair market conduct constituted by the Securities and Exchange Board of India (SEBI) has recommended that the regulator should seek more powers.
- The committee was formed in August 2017 as it was felt that a strong legal framework and strict enforcement actions are required to deal with market abuse and ensure fair market conduct in the securities market.
- The recommendations of the committee assume significance as SEBI is currently probing several high-profile cases where relatives of senior executives, as also various employees, at listed companies have come under scanner. Some of these cases include those related to ICICI Bank, Videocon Industries, Fortis Healthcare and listed companies such as HDFC Bank, Axis Bank and Tata Motors where sensitive financial information allegedly got leaked over WhatsApp before it was formally announced.

Recommendation of The Committee

- **Overall recommendations:** The committee's report has suggested a series of changes in rules on market frauds, insider trading, surveillance and investigations.
- **Power to act against listed companies:** The committee seeks to empower SEBI to act directly against a listed company, its directors and auditors where its books of accounts are falsified. Rather than rely on provisions of the Companies Act, the committee has sensibly recommended that the

SEBI Act be amended to allow SEBI to prosecute entities manipulating accounts. This is a good move given that SEBI has proved a far more proactive regulator than the Ministry of Corporate Affairs.

- **Power to intercept:** SEBI be given direct power to intercept calls to aid in investigation, akin to the power granted to the Central Board of Direct Taxes. Sebi currently has powers to seek call data records of those being probed, but it cannot intercept calls. However, recommended that a proper checks and balances must be ensured for use of the power.
- **Whistle blower policy:** As the whistle-blowers play a key role in alerting regulators to malpractice and the report recommends that SEBI, **rather than the Central Government**, be empowered to grant immunity to whistle-blowers. And also recommended mandatory whistle blower policies at listed firms.
- **On Insider trading:** A searchable list of all immediate relatives and persons living at the same address with those in possession of price-sensitive information should be maintained.
- **Fraud regulation should cover all:** For the regulations against frauds should cover all market participants and their employees as well as agents of intermediaries. The report said that due to lack of explicit provision in the regulations, the intermediaries alone are held responsible for any fraud. This gives scope to the employees and agents of these intermediaries to escape after indulging in fraudulent activity, therefore, the scope of the regulations should cover market participants including employees and agents of intermediaries.
- **Adding new provisions:** The committee has recommended the inclusion of a new sub-section within the SEBI Act, 1992, which would specifically prohibit devices, schemes or artifices employed for manipulating the books of accounts or financial statements of a listed company to directly or indirectly manipulate price of a listed securities or to hide the diversion, misutilisation or siphoning off public issue proceeds or assets or earnings of a listed company or to be listed company.

Final Analysis

- The Securities Exchange Board of India (SEBI) has also been anointed with sweeping powers to haul up offenders. But this has clearly failed to have a deterrent effect on the conduct of market players with scams, frauds and accounting manipulations cropping up all too frequently at India Inc.
- A couple of recommendations could result in regulatory overreach. One is the suggestion to characterize trading by market players in excess of their verifiable financial resources as fraud. The other is granting SEBI powers to intercept calls. Otherwise, most of the committee's recommendations are worth taking forward and if implemented can significantly raise the bar on the conduct of market players.
- But the sheer number of gaps flagged in this report also highlights the need for an ongoing review and updates to securities market laws at more frequent intervals.

Government Claims RBI Has Enough Power To Regulate Banks

Syllabus: Constitutional/Statutory/Regulatory/Quasi-Judicial Bodies

In News

- The government has claimed that the Reserve Bank of India has adequate powers to regulate both public and private sector lenders and put the onus back on the regulator to monitor lapses by all lenders, including state-run ones.
- The central bank had earlier claimed after the Punjab National Bank fraud that state owned banks are not completely regulated by the RBI.

RBI's Contention

Lacuna in 1949 Act: RBI says a banking company is defined in **Section 69 (c)** of that Act as any company, which transacts the business of banking in India. State Bank of India and nationalized banks, which are PSBs are not companies but corporations formed by statutes. They are therefore not banking companies. Thus, Banking regulation Act, 1949 does not apply to PSBs in full. Only those provisions of the BR Act specifically enumerated in **Section 51** of the Act or elsewhere in that Act, apply to PSBs. This forms a great constraint for a regulator and supervisor.

Provisions Empowering RBI As Per Government Claim

- **The 1949 Act:** The **Banking Regulation Act of 1949** allows the regulator to inspect the bank and its books and accounts, examine on oath any director or officer of the bank, direct special audits and order the bank to initiate insolvency resolution proceedings in respect of defaults, among others.
- **RBI's nominee director:** In the case of nationalized banks and the State Bank of India, the government claimed that the RBI's nominee director is a member of the management committee of the board that exercises the powers with regard to credit proposals above a specified threshold. Besides, the whole-time directors of nationalized banks and the SBI are appointed in consultation with the RBI.

POINTS-COUNTER POINTS

GOVT SAYS UNDER BANKING REGULATION ACT, RBI CAN

- Inspect the bank and its books and accounts
- Determine the policy in relation to advances by the bank
- Direct special audit of the bank
- Direct the bank to initiate insolvency resolution process in respect of a default under IBC
- RBI's broader guidelines on frauds lay out norms on categorisation, reporting and review of frauds, along with norms for consequent provisioning

RBI SAYS IT LACKS FOLLOWING POWERS OVER PSBs

- Remove chairman & managing directors and appoint them
- Grant licences and impose conditions while giving them
- Remove managerial and others persons from office
- Supersede the board of directors
- Make application of winding up
- The Banking regulation Act does not apply to PSBs in full



- **Power to prevent fraud:** RBI also maintains the Central Repository of Information on Large Credits on aggregate fund based and non fund based exposures of **Rs. 5 crore and above** of all banks. Further, RBI maintains the Central Fraud Registry and banks report all frauds involving amount above Rs. 1 lakh to RBI. In addition, RBI's master directions on frauds lay out guidelines on categorization, reporting and review of frauds, along with norms for consequent provisioning.
- **Other powers:** RBI approves the appointment and sets the remuneration of bank auditors and can appoint additional directors on the boards of nationalized banks and SBI's central board.

National Sports University Bill, 2018

Syllabus: Government Policies and Interventions For Development In Various Sectors and issues arising out of their design and implementation.

In News

- The Parliament has passed a Bill to replace an Ordinance promulgated in May to establish a National Sports University in **Manipur**.
- The key objectives of the university are research, development and dissemination of knowledge in physical education & sports sciences and strengthening training programs.
- The University would offer diplomas, bachelor and master's degree in various fields including sports management and sports science.
- There will be enhanced focus on sports coaching, physiology, nutrition, journalism and other areas associated with sports.
- The central government will review and inspect the functioning of University. Thus, **opposition parties have argued that it is not an autonomous university**.
- University will maintain a fund credited with the money received from the central and state government, fees and money received from any other sources (grants & gifts).

Authorities

The University will have the following key authorities:

- An **Executive Council** will be the primary body responsible for all administrative affairs of the University. It will be composed of (i) the **Vice-Chancellor** (appointed by the central government), (ii) **Additional Secretary and Financial Advisor, Ministry of Youth Affairs and Sports** and (iii) **four eminent sports persons**.
- A **Board of Sports Studies** will approve the subjects for research and recommend measures to improve standards of teaching.
- A **Court** to review the policies of the University and suggest measures for its development.

Swadesh Darshan Scheme - Development of North East Circuit

Syllabus: Government Policies and Interventions For Development In Various Sectors and issues arising out of their design and implementation.

In News

- Dr. Najma Heptulla, Governor of Manipur, launched the project “**Development of North East Circuit: Imphal & Khongjom**” being implemented under the **Swadesh Darshan Scheme of Ministry of Tourism**.
- The project covers two sites i.e. Kangla Fort and Khongjom and is the first project under the Swadesh Darshan Scheme being inaugurated in the country.
- Kangla Fort is one of the most important historic and archaeological site of Manipur located in the heart of the Imphal city. It served as the seat of Manipur's power till 1891.
- Under this project, the Ministry has carried out works such as restoration and improvement of outer and inner moat of the old Govindajee temple and rejuvenation of sacred ponds, reconstruction of old rampart, among others.

- **Khongjom** is the place where the **last war of resistance of Anglo Manipur War of 1891** was fought. Under the project a pedestrian bridge and rejuvenation of Kombirei Lake has been carried out.
- Development of Tourism in North Eastern Region is prime area of focus for the Ministry of Tourism. The Ministry is developing the tourism infrastructure in the region under its schemes of Swadesh Darshan and PRASAD.

Swadesh Darshan Scheme

- It is one of the flagship scheme of Ministry of tourism for **development of thematic circuits** in the country in a planned and prioritised manner.
- It intends to **promote cultural and heritage value of the country** by developing world-class infrastructure in the circuit destination.
- Under this scheme, **13 thematic circuits have been identified** for development. They are Buddhist Circuit, North-East India Circuit, Coastal Circuit, Himalayan Circuit, Krishna Circuit, Desert Circuit, Eco Circuit, Wildlife Circuit, Tribal Circuit, Rural Circuit, Spiritual Circuit, Ramayana Circuit, and Heritage Circuit.

PRASAD Scheme

- **Pilgrimage Rejuvenation and Spiritual Augmentation Drive (PRASAD)** aims to beautify and improve the amenities and infrastructure at pilgrimage centres of all faiths and harness the value of religious tourism.
- Under the PRASAD scheme, **13 sites** have been identified for development, namely: Amritsar, Ajmer, Dwaraka, Mathura, Varanasi, Gaya, Puri, Amaravati, Kanchipuram, Vellankanni, Kedarnath, Kamakhya, and Patna.

Srikrishna Panel’s Data Protection Report

Syllabus: Government Policies and Interventions For Development In Various Sectors and issues arising out of their design and implementation.

In News

- The Srikrishna committee on data protection submitted its much-awaited report titled **“A Free and Fair Digital Economy: Protecting Privacy, Empowering Indians”** and its recommendations, if accepted by the government will sharply increase citizen’s privacy levels, affect technology and ecommerce companies, and redefine government’s access to personal information. Also, key laws such as those on Aadhaar, Right to Information, and Information Technology may have to change.
- Recently, the **Clarifying Lawful Overseas Use of Data (CLOUD) Act**, passed by the U.S. Congress, seeks to de-monopolize control over data from USA authorities. The law will for the first time allow tech companies to share data directly with certain foreign governments. This, however, requires an executive agreement

KEY RECOMMENDATIONS

- Personal data shall be processed only for purposes that are clear, specific and lawful
- Individuals will have the right to withdraw consent
- All firms and agencies will have to appoint data protection officers
- Firms will have to ensure at least one copy of personal data to be stored in India
- They will also act as point of contact for the individuals for raising grievances
- “critical” personal data shall only be processed in a server or data centre located in India
- Exemptions have been provided for processing of personal data for journalistic purpose, or for a purely personal or domestic purpose
- Penalties range from 2-4% of a company’s worldwide turnover, or fines between ₹5 crore and ₹15 crore, whichever is higher
- The Centre shall notify Data Protection Authority of India
- A data protection fund and a data protection awareness fund to be set up through proceeds from the penalties and the fines

Existing Acts such as Right to Information, Aadhaar and Information Technology will have to be amended

between the U.S. and the foreign country certifying that the state has robust privacy protections and respect for due process and the rule of law.

Key Recommendations

- **Draft Bill:** The Justice BN Srikrishna-headed committee submitted its recommendations along with the draft *Personal Data Protection Bill, 2018*.
- **Citizen Right Over Data:** Citizens and Internet users will have the final say on how and for which purpose personal data can be used and they will also have the right to withdraw consent and further once the purpose is fulfilled, the data will need to be deleted.
- There will also be the option of **Right To Be Forgotten**, which entails that the person has the power to restrict or prevent continuing disclosure of personal data by a data fiduciary. However, the applicability of the right to be forgotten will be determined by the adjudication wing of the *Data Protection Authority (DPA)* based on the sensitivity of the personal data sought to be restricted.
- **Data Protection Authority and Fund:** It also calls for setting up of a Data protection Authority (DPA) on the lines of regulators such as SEBI and a **data protection fund**. The authority will be governed by a board consisting of six whole-time members and a chairperson appointed by the Union government on the recommendation of a selection committee. And the selection committee shall consist of the Chief Justice of India or her nominee (who is a judge of the Supreme Court of India), the Cabinet Secretary, Government of India and one expert of repute who has special knowledge of and professional experience in areas related to data protection, information technology, data management, data science, cyber and Internet laws and related subjects. Moreover, DPA shall perform the following primary functions i.e. monitoring and enforcement; legal affairs, policy and standard setting; research and awareness; inquiry, grievance handling and adjudication.
- **Critical personal data:** The draft bill states that the government can notify categories of personal data as critical personal data that can only be processed in a server or data centre located in India.
- **Sensitive personal data:** The bill has expanded the definition of sensitive personal data to 13 types, compared with only five earlier. These include passwords, data relating to finances, health, sexual orientation, sex life, biometrics, genetics, transgender status, intersex status, caste or tribe, religious or political beliefs.
- **Data localization:** For technology and Internet companies it recommended on storing one copy of personal data in India i.e. creating a mirror of data stored in servers abroad. Moreover, it said that data localization requirements may be considered for certain sensitive sectors, but may not be advisable across the board.
- **Significant data fiduciaries:** Companies processing huge amounts of personal and sensitive data will have to register themselves as significant data fiduciaries with a new authority and undergo data audits, keep records and create a data protection officer post.
- **Security audit:** It calls for mandatory security audits of all companies, both foreign and Indian; appointment of data protection officers by them.

- **Exemption for the government:** The government will be exempted from certain rules applicable to the collection and storage of personal and sensitive data if such processing is required for the functioning of the government or Parliament or for the exercise of any function of a State authorised by law for the provision of any service or benefit to the person from the State or for issuance of any certification, license or permit.
- **Other exemptions:** The expert committee also recommended that processing of data for certain interests such as security of the state, legal proceedings, research and journalistic purpose, may be exempt from certain obligations of the proposed data protection law.
- **Penalties:** The Committee recommends appointing adjudicatory officer for imposing stiff monetary penalties as well as criminal prosecution has been recommended for companies violating data privacy rules. The Bill makes senior management of companies and heads of government departments accountable for any breach in data privacy. The Bill has mandated penalties anywhere between **two and four percent** of a company's worldwide turnover or fines between **Rs 5 crore** and **Rs 15 crore**, whichever is higher for violations such as failing to notify a personal data breach or large scale profiling or use of genetic data or biometric data which may cause harm to the people concerned. The European Union's **General Data Protection Regulation** (GDPR) also mandates companies violating rules to cough up penalties to the range of 2-4% of their annual revenues or nearly \$25 million.
- **Protection of data regarding children:** The committee has made specific mention of the need for separate and more stringent norms for protecting the data of children, recommending that companies be barred from certain types of data processing such as behavioral monitoring, tracking, targeted advertising and any other type of processing which is not in the best interest of the child. As it is widely accepted that processing of personal data of children ought to be subject to greater protection than regular processing of data. The justification for such differential treatment arises from the recognition that children are unable to fully understand the consequences of their actions and is exacerbated in the digital world where data collection and processing is largely opaque and mired in complex consent forms.

Positives

- **Better enforcement:** The proposed Digital Protection Authority (DPA) as an independent regulatory body will be beneficial in the enforcement of the data protection law.
- **Public authorities also covered:** The recommendation for bringing public entities under the ambit of law would not only strengthen the confidence of citizens but also define specific safety measures for their personal data while using e-governance services.
- **More protection to Aadhar data:** The committee has proposed enforcement powers to UIDAI like other regulatory bodies and the power to impose civil penalties of up to **Rs. 1 crore** on any entity that violates the Aadhaar Act, besides powers of search, seizure and requisitioning help of the police to stop such a violation. The maximum jail sentence for illegally accessing Aadhaar data from UIDAI's Central Identities Data Repository has been proposed to be enhanced from three years at present to **10 years**. This will add more teeth to the agency that manages the Aadhaar data. Moreover, the new provision of offline verification proposed by the committee in which Aadhaar

holders do not have to disclose their Aadhaar number for routine transactions is also a welcome move.

- **Incorporate best practices:** The Bill has also draws features from various global privacy laws, including the EU's GDPR.

Negative

- **Increase cost of doing business:** The mandate could, however, prove detrimental to the country's startup and innovation ecosystem since smaller companies or foreign application providers may not be able to afford the additional costs and compliance burden. There are also fears of backlash from the country's IT industry.
- **Opposition to data localization:** Data localization requirements are contrary to the goals of promoting a Digital India, as global data transfers were critical to cloud computing and data analytics. Moreover, it will increase cyber security risks since cross border flow of data can lead to better fraud analysis.
- **Tricky to implement Right to be Forgotten Clause:** As It will be difficult for the fiduciary to track all the places where data is shared and overall it may not be feasible. Moreover, there could also be operational costs involved for companies to comply with the clause.
- **Didn't define critical data:** The committee's decision to leave the definition of critical personal data to the government had put tremendous obligation on the authorities.
- **Doesn't specify threshold for reporting breach:** In the report, the committee has explained that due to the complicated nature of breaches it was not advisable to list specific thresholds in the law of what can be reported to the DPA, thus leaving it to the wisdom of the authority to take necessary action.
- **No timeline for reporting data breach:** The authority is to determine whether a data breach needs to be reported to the affected individuals or not. This creates a bottleneck and comes in the way of timely notification to affected parties so as to take precautionary measures to prevent further damage. Further, the draft Bill does not specify any timeline for notification once the breach is identified. In the case of GDPR, for instance, it is **72 hours** once the breach is identified.
- **Broadly carved out exceptions:** The model for data protection that the committee has proposed leaves too many exceptions, especially when the government is the data collector and user. It proposes that the basic requirement of notice-and-consent could be lowered or waived altogether for "state functions" or social welfare purposes, among others. These are broadly worded carve outs that can be abused and need to be carefully reviewed.
- **Surveillance reform not suggested:** The principal shortcoming is that it does not detail a legal framework for regulating state infringement of privacy by Intelligence agencies. The panel had an opportunity to recommend judicial oversight for India's surveillance system, but it did not do so. India does not have any transparency in reporting requirements for the surveillance that is conducted by intelligence agencies. Rather, it calls for a separate law to regulate intelligence agencies and their working.

- **DPA being overloaded:** The overloading of the proposed DPA with functions (committee has allotted 24 onerous functions to the DPA) as mentioned in the current form of the Bill could prove to be one of the bottlenecks in the implementation of a data protection framework in India.
- **Independence of the regulator missing:** The bill leaves the procedure of selection and tenure of the adjudicating officer entirely up to the central government. It is likely that this regulator will never be sufficiently independent to enforce rights against the government.

Final Analysis

- Given the vast amounts of personal data being collected by private companies and state agencies and their flow across national jurisdictions, the absence of a data protection legal framework in India earlier had been a cause for deep concern.
- Moreover, the need for legislation was also underlined last year with the landmark judgment in *Justice K.S Puttaswamy v. Union of India* that held the right to privacy to be a fundamental right.
- Taken together, the draft bill and the report mark a welcome step forward, but there are some grey areas. The exemptions granted to state institutions from acquiring informed consent from principals or processing personal data in many cases appear to be too blanket. The grey areas must spark public and parliamentary debate before a final legislation comes to fruition.

Social Justice

NCRB To Track Complaints On Sexual Violence

Syllabus: Mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections

In News

- Under **section 79 of the IT Act, 2000**, the Ministry of Home Affairs has designated **National Crime Records Bureau (NCRB)** as the nodal agency to curb easy availability of online child porn and rape videos.
- NCRB has been mandated to take steps either on the basis of complaints (via online portal) or by taking Suo motu cognizance.

NCRB

- NCRB is an Indian government agency which functions as a repository of information on crime and criminals so as to assist the investigators in linking crime to the perpetrators.
- It was set-up in **1986** on the recommendations of the **National Police Commission (1977-1981)**.
- It is **headquartered in New Delhi** and is part of the Ministry of Home Affairs (MHA).

Sexual Harassment of Women at Workplace Act

Syllabus: Mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections

In News

- Union government has made it mandatory for companies to disclose whether they have constituted an Internal Complaints committee (ICC) to probe allegations of sexual harassment at workplace.
- For making the disclosure mandatory, Corporate Affairs Ministry has amended the **Companies (Accounts) Rules, 2014**, governed by the Companies Act, 2013.
- The amended rules state that the **Annual Reports of Private companies** will have to contain a statement about status of Internal Complaints Committee (ICC).

Internal Complaints Committee (ICC):

- Under the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, it is mandatory for **any organisation with 10 or more employees** to constitute an ICC.
- An employer who doesn't do so could face a **fine of up to ₹50,000**.
- **Composition:** An ICC should consist of a –
 - presiding officer, who is a woman employee at a senior level in the same organization,
 - at least two employees “preferably committed to the cause of women”, and
 - a member from an NGO or a person “familiar with issues relating to sexual harassment.”
- **Powers:** ICC would have powers similar to those of a civil court and would have to complete its inquiry within 90 days.

Parliament Passes Criminal Law (Amendment) Bill 2018

Syllabus: Mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections

In News

- Parliament has passed the Criminal Law (Amendment) Bill 2018 that proposes to enhance punishment for rape of Minors.
- The Bill replaces the Ordinance promulgated in April following the rape and murder of a minor girl in Kathua in Jammu and Kashmir.
- It amends relevant Sections of the IPC, CrPC and the POCSO Act.

Provisions of The Act

Age Group of victims	Offence	Punishment to Culprit
Under 12 years	Rape	Minimum sentence of 20 years, up from 10 years previously. The maximum punishment is death penalty.
	Gang rape	The minimum punishment is life sentence (earlier 20 years) while the maximum is death penalty.

Between 12 to 16 years	Rape	Minimum sentence of 20 years (up from 10 years) and Maximum punishment being life imprisonment.
	Gang rape	Minimum punishment of life sentence.
Between 16 and 18	Rape	Minimum punishment of 10-year jail term and maximum is life imprisonment.
Repeat offenders will be punished with life imprisonment or death.		

- The Bill provides for **time-bound investigation** (it must be completed within two months).
- The case is to be tried in a **fast track court**. Any appeal against a sentence by the trial court **must be disposed of within six months**.
- Moreover, the accused is **not entitled to anticipatory bail**, in offences involving a child less than 16 years of age.

Analysis

- **The NDA government has justified the bill** on the ground that faith in the law will be restored only if there is a severe deterrent to those committing heinous acts. However, this is debatable.
- Report No. 262 of the Law Commission of India on the death penalty noted that there is no evidence to show that the death penalty acts as a deterrent. It is because **criminals don't consider the probability of being punished sufficiently high**.
- This can also be seen by the fact that **brutal rapes in India have not decreased despite enforcement of the Criminal Law (Amendment) Act, 2013** —which prescribes death penalty and life imprisonment for sexual assaults that results in death.
- By focusing on death penalty as the ultimate measure of justice to victims, the **restorative and rehabilitative aspects of justice are lost sight of**.
- **By equalizing the punishment for rape and murder**, it is likely that most child victims of rape will be harmed so that the best witness is eliminated.
- The factors that derail the wheels of justice are **shoddy police investigations, tardy filing of charge sheets, delayed forensic reports and low conviction rates**. These needs to be addressed.

Way Forward

- **Enhance conviction rates** through reforms in the police and judicial systems; greater allocation of state resources towards the setting up of fast-track courts; proper witness protection etc.
- **Improve measures to rehabilitate and empower rape survivors** by setting up of more one-stop crisis centers; more expansive compensation for rape survivors, and an overhaul of existing child protection services.
- **Invest in combating the rape culture** by age-appropriate sex education at all levels, by aggressive advertisement campaigns on issues of gender bias, everyday sexism, misogyny, stereotypes, consent and equality etc.

Begging Decriminalized in Delhi

Syllabus: Mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections

In News

The Delhi High Court has decriminalized begging in the national capital on the ground that the penal provisions in the law were unconstitutional.

Bombay Prevention of Begging Act, 1959

- The act of begging was made a criminal offence after the **Bombay Prevention of Begging Act 1959** was extended to Delhi by a Central government amendment in 1960.
- The law prescribes detention for 3 years in beggar homes in case of first conviction for begging and detention for 10 years in subsequent conviction.
- Currently, there is **no central law on begging and destitution** and most states have adopted the Bombay Prevention of Begging Act 1959, or have modelled their laws on it.

Delhi High Court's Observations

- Criminalizing begging doesn't address the root cause of the problem i.e. poverty.
- People beg as a last resort to subsistence. Criminalizing it **violates the fundamental right to life accorded under Article 21** of the Constitution.
- The Act was found to be harsh, not just in terms of its disproportionate punishment, but also for the process it prescribed. All offences under the Act, except those under Section 11, were to be tried, **without giving any opportunity of being heard to the accused.**
- The Bench did not touch the provisions in the Act that deals with penalty for employing or causing persons to receive alms. However, it noted that the Delhi government was always at liberty to bring in alternative legislation to **curb any racket of forced begging.**

Fact File

Constitutional Provisions Against Begging

Indirectly, various constitutional provisions deal with the menace of beggary among childrens.

- Article 24 explicitly prohibits child labour and hazardous employment of children.
- Article 39(c) provides that children's should be given opportunities to develop in a healthy manner.

Persons in Destitution (Protection, Care And Rehabilitation) Bill 2015

- The bill has been drafted by the government to decriminalise beggary and offer a life of dignity to the beggars, homeless and others who live in poverty or abandonment.
- In April 2016 the standing committee commented that the bill is still under consideration and it should be implemented expeditiously.

Triple Talaq Bill

Syllabus: Mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections

In News

- The Union Cabinet has approved three crucial **amendments** to the **Muslim Women (Protection of Rights on Marriage) Bill, 2017** or the Triple Talaq Bill.
- The Supreme Court had, in **Shayara Bano v Uol Case 2017**, banned instant triple talaq in August 2017 and called the practice un-Islamic, arbitrary and **not integral to religious practice**. However, activists and lawyers urged the government to implement a concrete law to lay down the punishment which will be given to the offenders.
- Under **talaq-e-biddat** or popularly known as triple talaq, a Muslim man can instantly divorce his wife by orally repeating the word talaq three times.
- There are three types of talaqs in Islam viz. **Talk-e- Ahsan, Talaq-e-Hasan and Talaq-e-Biddat**. The first two are revocable however the third is irrevocable. Talaq-e-Biddat has already been banned in many Islamic countries including Pakistan and Bangladesh.
- The Bill has already been passed by the Lok Sabha but is awaiting approval in Rajya Sabha. It proposes a **three-year jail term and a fine** to any Muslim man who opts out of a marriage by a quick verbal divorce.

Amendments

- Although the bill still mentions it as a **non-bailable offence**, the accused can now seek bail from a magistrate even **before the beginning of the trail**. The bail would be granted by the magistrate after hearing the wife only if the husband agrees to grant compensation to his wife. The magistrate would decide the quantum of compensation.
- An FIR against the husband will only be recognised if it is filed by the **victim or a relative by blood or marriage**. This has been done to **prevent misuse** as earlier anyone including the neighbours could file the complaint.
- Further, the law has been made **compoundable**, that is, if the wife and the husband agree to settle their differences, then the magistrate can compound the offence on appropriate terms and conditions and allow them to settle the case.
- The bill also notes an additional provision for the victim to seek custody of her children. As part of the new amendments, **mothers can now apply for a subsistence allowance** for herself and minor children before the magistrate who will take the final call.

Triple Talaq Bill 2017

Key Highlights

- Under the bill, the declaration of talaq “by a person upon his wife, by words, either spoken or written or in electronic form or in any other manner whatsoever, void and illegal.”
- The practice of triple talaq is criminalised under this bill; a cognisable and non-bailable offence under the Code of Criminal Procedure, 1973, wherein the punishment for pronouncing talaq

upon one's wife is imprisonment that may extend to three years and fine.

- The bill provides for a 'subsistence allowance', determined by a magistrate, for her and any dependent children. A Muslim woman who has been subjected to triple talaq is also entitled to custody of her minor children.

Criticism

- The bill fails to take into account the nuances of women's human rights. The concept of 'subsistence allowance' is abstract at best, and knowing how Muslim property and maintenance laws work, the calculation of such allowance should have been prioritised.
- Under the bill, the protection of the rights of Muslim women does not include protection, prevention or redressal of violence against Muslim wives by their husbands as it looks at talaq-e-biddat in an isolated manner.
- Section 7 of the draft Bill makes pronouncement of talaq-ul-biddat as a cognizable and non-bailable offence. However, it did not stipulate as to whose information regarding pronouncement of instant triple talaq will be construed as "information" required under Section 154 of the CrPC.
- This effectively means that any person can lodge an FIR against the husband and the husband will be under threat of arrest even without issuance of warrant.
- According to many critics, the bill suffers from several contradictions. These are:
 - After rendering talaq-e-biddat inoperative in Section 3, its nugatory pronouncement can be considered a cognisable and non-bailable offence in Sections 4 and 7. This raises an important question: Can a law criminalise an act after conceding that it does not result in a crime?
 - Sections 5 and 6 discuss post-divorce issues such as a "subsistence allowance" for the woman upon whom instant talaq "is pronounced" and the "custody of her minor children". How could the Bill talk of post-divorce matters ignoring the fact that the pronouncement (instant talaq) has already been voided in Section 3 and cannot result in a divorce?

Parliament Passes National Commission For Backward Classes (NCBC) Bill

Syllabus: Mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections

In News

- The **123rd Constitutional Amendment Bill** has been passed by the Parliament. The Upper House adopted the legislation, along with the amendments made by the Lok Sabha, with over **two-thirds majority** of those present, voting in favour of the bill.
- The Bill provides for the grant of **constitutional status to NCBC** on par with the National Commission for Scheduled Castes and the National Commission for Scheduled Tribes, which was first set up under the National Commission for Backward Classes Act, 1993. It states that the President may specify the socially and educationally backward classes in the various states and union territories. He may do this in consultation with the Governor of the concerned state.

Highlights Of The Bill

- The bill seeks to repeal the National Commission for Backward Classes Act, 1993 and insert **Article 338B** in the Constitution in order to set up the constitutional body, besides inserting a new provision through **Article 342A** to provide for Parliament's approval for every inclusion into and exclusion from the Central List of OBCs.
- The Commission will consist of **a chairperson, a vice-chairperson and three other members**. The President will be in charge of deciding the conditions of service and the tenure of the office of all the members.
- It also seeks insertion of **clause (26C) under Article 366** with a modified definition viz. "socially and educationally backward classes" means such backward classes as are so deemed under Art. 324A of the Constitution.
- The bill states that the President may specify the socially and educationally backward classes in the various States and Union Territories. He may do this in consultation with the Governor of the concerned state. However, **a law of Parliament will be required if the list of backward classes is to be amended**.
- It would not encroach upon the rights of State governments as they would have their own backward class commissions and their own lists of castes who belong to OBC. The NCBC would recommend only to the central government regarding inclusion or deletion of a particular caste in the list.
- The Central and state governments will be required to **consult with the NCBC** on all major policy matters affecting the socially and educationally backward classes.
- It is the duty of the commission to investigate and monitor how safeguards provided to the backward classes under the Constitution and other laws are being implemented and also evaluate how effective these safeguards are.
- It will also have the power to probe specific complaints regarding violation of rights. In doing so, NCBC is set to have the **powers of a civil court** while investigating or inquiring into any complaints. These powers include: summoning people and examining them on oath; requiring production of any document or public record; receiving evidence.
- The Commission will also be in charge of working towards improving the socio-economic condition of Other Backward Classes and also evaluating the progress in development at the Centre and state level.
- Annually, it will **present the President of India with reports** that will include their recommendations on the implementation of protection, welfare and socio-economic measures that should be taken by the Centre and states.
- The President will then **lay down these reports in Parliament** along with a memorandum explaining the action taken or a proposed move on the recommendations. If any recommendation pertains to a particular state government, then it will be notified as well.

In Favour Of Bill

- This move is expected to remove the dichotomy between center and state reservation lists and bring about more transparency in the implementation of laws.

- The existing commission did not have the powers to hear complaints from OBC members like the SC/ST commissions did, and in that sense, a constitutional authority will ensure it has more power.
- As of now, it's the NCSC that looks into complaints and welfare measures that pertain to schedules classes, Anglo-Indians as well as backward classes. The Parliamentary Committee for welfare of OBCs in its report has also noted that the NCSC has not been able to discharge its duties for the OBCs in the present circumstances. With this step, the government recognises that backward classes not only need reservations, but development as well.
- The stipulation in article 342A that any inclusion or exclusion after President's notification can be made only by Parliament by law imparts greater transparency to the process.
- As the commission is established through a constitutional amendment, it cannot be amended by a simple majority in Parliament and adds to its robustness.

Against The Bill

- Although the provision for a female member has been made in the commission, it **leaves out mandatory representation for minorities**.
- The identification of communities who belong to BCs is significantly different and more layered than identification of SCs and STs. An expert body is required for finding and advising whether a caste fulfils the criteria of social and educational backwardness. This is found to be missing in the newly constituted body.
- Since the commission is only a quasi-judicial body, it does not have punitive powers hence it is another toothless tiger in the making.
- The recommendations of the commission **are advisory** and not binding on the government hence it lacks the desired strength to bring about significant changes.

Conclusion

Although conferring constitutional status on the commission is bound to add more strength to it. It is important that proactive steps are taken to identify and ameliorate the problems faced by the socially and educationally backward people of the country so that they can also reap the benefits of development equally, as merely creating bodies will not lead to equity at the grassroot level.

About NCBC

- The Commission will consist of a chairperson, a vice-chairperson and three other members. The President will be in charge of deciding the conditions of service and the tenure of the office of all the members.
- The government has also assured that it would include **a woman on the committee** when it frames the rules notifying the Commission.
- The Commission has the powers to look into specific complaints related to the rights and safeguards granted to socially and educationally backward classes under the Constitution.
- In doing so, the NCBC will have the **powers of a civil court** while probing any complaint.
- To investigate any matter deeply, it has the power to summon and enforce the presence of any person from any part of India and also examine them.

- The Commission will also be in charge of working towards improving the socio-economic condition of Other Backward Classes and also evaluating the progress in development at the Centre and state level.
- The Union and state governments will have to consult the Commission on any policy matters related to Other Backward Classes.
- Annually, it will present the President of India with reports that will include their recommendations on the implementation of protection, welfare and socio-economic measures that should be taken by the Centre and states. The President will then lay down these reports in Parliament along with a memorandum explaining the action taken or a proposed move on the recommendations. If any recommendation pertains to a particular state government, then it will be notified as well.

Parliament Passes SC And ST (Prevention Of Atrocities) Amendment Bill, 2018

Syllabus: Mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections

In News

The Parliament has passed the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Amendment Bill, 2018, which seeks to overturn a Supreme Court order.

Supreme Court's order

- SC mandated that a **preliminary enquiry** should be conducted before the FIR was registered to check if the case fell within the parameters of the Act, and whether it was frivolous or motivated.
- Further the court stated that in view of acknowledged abuse of law of arrest in cases under the Atrocities Act, arrest of **a public servant can only be after approval of the appointing authority and of a non-public servant after approval by the SSP** which may be granted in cases if considered necessary for reasons recorded. Such reasons must be scrutinised by the magistrate for permitting further detention.
- The SC justified the order saying that even Parliament cannot allow the arrest of a person without a fair procedure and asserted that it has protected the fundamental rights to life and liberty of innocents by ordering prior scrutiny of complaints.
- The ruling was greeted by a storm of protest from Dalit groups, which said the **court's order diluted the legislation**.
- The court refused to stay its ruling, leading to calls from Dalit groups demanding that the government introduce an ordinance or an Amendment Bill to restore the original provisions of the law. Following which the government introduced a bill to restore the original provisions of the Act.

Amendments

- The Amendment leads to the insertion of **Section 18A** in the new Act. According to it, a **preliminary inquiry shall not be required for the registration of a FIR** against any person.

- Further, the **Investigating Officer will not require approval of any authority for the arrest of the accused.**
- Moreover, the provisions of **Section 438** of the Code of Criminal Procedure, which deals with **anticipatory bail**, shall not apply to a case under this Act, notwithstanding any judgment or order of any Court.

SC/ST Act

- The SC/ST (Prevention of Atrocities) Act is popularly known as the SC/ST Act or the Prevention of Atrocities Act. The SC/ST Act was **enacted in 1989** and the rules for the Act were notified in 1995.
- According to the SC/ST Act, **protection is provided from social disabilities** such as denial of access to certain places and to use customary passage, personal atrocities like forceful drinking or eating of inedible food, sexual exploitation, injury etc, atrocities affecting properties, malicious prosecution, political disabilities and economic exploitation.
- For speedy trial, Section 14 of the SC/ST Act provides for a **Court of Session to be a Special Court** to try offences under this Act in each district.
- The prime objective of the SC/ST Act is to deliver justice to marginalised through proactive efforts, giving them a life of dignity, self-esteem and a life without fear, violence or suppression from the dominant castes.

Common Service Centres To Implement Ayushman Bharat

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

In News

- Ministry of Health's **National Health Agency (NHA)** signed a memorandum of understanding with Ministry of Electronics and Information Technology's **Common Service Centres (CSCs)** to implement the Ayushman Bharat scheme through three lakh CSCs across the country.
- Ayushman Bharat is the National Health Protection Scheme, which will cover over 10 crore poor vulnerable families (around 50 crore beneficiaries) providing coverage of **up to ₹5 lakh (per family per year) for secondary and tertiary care hospitalisation.**
- Ayushman Bharat will work with CSC for the last mile reach. This will open new and easy ways for beneficiaries to validate their entitlement.
- Under the agreement, all CSCs are expected to be equipped by September-end with biometric facilities to allow for verification of beneficiaries who have Aadhaar cards
- CSC will help the beneficiary to **identify his/her name** in the Ministry of Health and Family Welfare database and his/her entitlement for the scheme.

Common Service Centres

- CSCs are physical facilities for **delivering Government's e-Services to rural and remote locations** where availability of computers and internet was negligible or mostly absent.

- CSCs act as access points for delivery of essential public utility services, social welfare schemes, healthcare, financial, education and agriculture services, apart from host of B2C services to citizens in rural and remote areas of the country.

About Ayushman Bharat Scheme

- Under the Ayushman Bharat Scheme, the government aims to open 1.5 lakh health and wellness centre by 2022, which would be equipped to treat host of diseases, including blood pressure, diabetes, cancer and old-age illness.
- AB-NHPM will subsume the on-going centrally sponsored schemes - RashtriyaSwasthyaBimaYojana (RSBY) and the Senior Citizen Health Insurance Scheme (SCHIS).
- Under the scheme, the government has prepared the broad contour of the National Health Protection Scheme (NHPS). It aims to target over 10 crore families belonging to poor and vulnerable population based on Socio Economic and Caste Census 2011 (SECC) database.
- AB-NHPM will have a defined benefit cover of Rs. 5 lakh per family per year. There will be no cap on family size and age in the scheme.
- The benefit cover will also include pre and post-hospitalisation expenses. All pre-existing conditions will be covered from day one of the policy. A defined transport allowance per hospitalization will also be paid to the beneficiary.
- Benefits of the scheme are portable across the country and a beneficiary covered under the scheme will be allowed to take cashless benefits from any public/private empanelled hospitals across the country.
- AB-NHPM will be an entitlement based scheme with entitlement decided on the basis of deprivation criteria in the SECC database.
- To control costs, the payments for treatment will be done on package rate (to be defined by the Government in advance basis).
- One of the core principles of AB-NHPM is to co-operative federalism and flexibility to states.
- For giving policy directions and fostering coordination between Centre and States, it is proposed to set up Ayushman Bharat National Health Protection Mission Council (AB-NHPMC) at apex level Chaired by Union Health and Family Welfare Minister.
- States would need to have State Health Agency (SHA) to implement the scheme.

Impact

- In-patient hospitalization expenditure in India has increased nearly 300% during last ten years. (NSSO 2015).
- Rural households primarily depended on their 'household income / savings' (68%) and on 'borrowings' (25%), the urban households relied much more on their 'income / saving' (75%) and on '(18%) borrowings, for financing expenditure on hospitalizations. (NSSO 2015).
- Out of pocket (OOP) expenditure in India is over 60% which leads to nearly 6 million families

getting into poverty due to catastrophic health expenditures.

- AB-NHPM will have major impact on reduction of Out Of Pocket (OOP) expenditure on ground of:
 - ✓ Increased benefit cover to nearly 40% of the population (the poorest&the vulnerable).
 - ✓ Covering almost all secondary and many tertiary hospitalizations. (except a negative list)
 - ✓ Coverage of 5 lakh for each family, (no restriction of family size)
- AB-NHPM will lead to increased access to quality health and medication.
- Access to financial resources due to health protection component will result in timely treatments thereby improved health outcomes.

Homoeopathy Central Council (Amendment) Bill 2018

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

In News

Parliament has passed the Homoeopathy Central Council (Amendment) Bill, 2018. It replaces the Homoeopathy Central Council (Amendment) Ordinance, 2018 that was promulgated in May 2018.

Highlights Of The Bill

- The Bill amends the Homoeopathy Central Council Act, 1973 which sets up the **Central Council of Homoeopathy** (a body for *regulating homoeopathic education and practice*).
- It dissolves the existing Central Council and, in its place, a new Central Council will be **reconstituted within one year** from the date of its supersession.
- In the interim period, the central government will constitute a **Board of Governors** (consisting of up to 7 members), for exercising the powers of the Central Council.
- **Existing homoeopathy colleges (and the courses run by them) will have to get approval from the central government within one year.**
- If these colleges fail to get such permission, then the medical qualifications granted to the students will not be recognized under the law.

Homeopathy

Homeopathy is an alternative medical system that was **developed in 1796 by Samuel Hahnemann in Germany**. Its underlying theories are as follows:

- **Like cures like:** A substance taken in small amounts will cure the same symptoms it causes if taken in large amounts.
- **Law of minimum dose:** The lower the dose of the medication, the greater its effectiveness.
- Homeopathy treats each person as a unique individual. **Treatments are “individualized”** or tailored to each person.

Health Policies To Cover Mental Illness

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

In News

- Insurance regulator IRDAI has recently **issued a circular directing insurer to cover** mental ailments such as schizophrenia, bipolar disorder etc.
- As per the National Mental Health Survey of India for FY16, **nearly 15 % of Indian adults need active intervention** for one or more mental health issues.
- The **Mental Healthcare Act, 2017 made it mandatory to provide “for medical insurance for treatment of mental illness”**. But to date, none of India’s 33 insurers has complied, even though such covers are commonplace in many countries.
- The move is significant as it will ensure a life of dignity for people having mental health issues. It will create awareness, acceptance and inclusion of mental illness as any other physical ailment and ‘normalize’ diagnoses, by reducing associated myths and stigma.

Scrub Typhus

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

In News

- As per recent findings by a team of experts, Scrub typhus is the key cause of **Acute Encephalitis Syndrome (AES)** in eastern Uttar Pradesh. AES is characterized by high fever and neurological problems (mental confusion, disorientation or coma).
- Scrub typhus is a disease caused by a **bacterium called Orientia tsutsugamushi**. It is **spread** to people through bites of infected chiggers (larval mites). The adult mites do not bite, rather the larvae which are too small to be seen by the naked eye do so. Its **key symptoms** are fever, changes in Tissue and rashes on skin.
- It is an occupational disease frequently found in people who work in the fields and are in the habit of gardening.
- It is also known as **bush typhus** because the larval mites that cause it reside in vegetation predominantly comprising small shrubs. The disease is **more common during the wet season** when the mites lay eggs.
- **Treatment:** Scrub typhus should be treated with the **antibiotic doxycycline**. Doxycycline can be used in persons of any age.
- **Prevention:** **No vaccine is available to prevent scrub typhus**. When traveling to areas where scrub typhus is common, avoid areas with lots of vegetation and bush.

Tsutsugamushi Triangle

- Scrub typhus is endemic to **tsutsugamushi triangle (named after O. tsutsugamushi)**.

- It is a part of the world which extends from northern Japan and far-eastern Russia in north, to the territories around the northern Australia in the south, and to Pakistan and Afghanistan in the west.

Poshan Maah

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

In News

- An orientation workshop for various stakeholders participating in the **Poshan Maah (National Nutrition Month)** was recently held in New Delhi.
- Poshan Maah—being celebrated in the month of September—is an initiative of **Ministry of Women and Child Development and NITI Aayog** to give a push to Poshan Abhiyan.
- Its **objective** is to take the message of importance of nutrition to every household. It seeks to ensure '**har ghar poshan tyohar**' (every house a celebration of nutrition).
- The program focuses on **8 themes**:(1) Antenatal Care, (2) Optimal Breastfeeding, (3) Complementary Feeding, (4) Anemia, (5) Growth Monitoring, (6) Girls-education, diet, right age of Marriage, (7) Hygiene & Sanitation, (8) Food Fortification.
- During Poshan Maah, activities like Prabhat Pheri, Poshan Melas, Nukkad Nataks, School Based Events will be held to achieve the above objectives.

Poshan Abhiyaan (National Nutrition Mission)

- It was launched by the Prime Minister in March, 2018 from Jhunjhunu, Rajasthan. By **the year 2020, all 36 States/UTs** and 718 districts will be covered in a phased manner.
- The Abhiyaan **targets** to reduce stunting, under-nutrition, anemia (among young children, women and adolescent girls) and reduce low birth weight by **2%, 2%, 3% and 2% per annum respectively**.

World Breastfeeding Week (August 1 to 7)

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

In News

- World Breastfeeding Week is a worldwide celebration held annually from **August 1st to 7th** and is dedicated to nursing mothers & to raise awareness about significance of breast milk in infant's life.
- This year's theme is **Breastfeeding: Foundation for Life** and is being organised by **WABA (World Alliance for Breastfeeding Action), WHO, and UNICEF**.
- The international campaign was started in 2016 to protect, promote and support breastfeeding globally with a larger **aim to reduce malnutrition-related deaths and end poverty**.
- It commemorates the **Innocenti Declaration** signed in August 1990 by government policymakers, WHO, UNICEF and other organizations.

- According to a report an estimated **7.8 crore newborns or three in five infants are not breastfed within their first hour of life** globally which lowers their chance of survival.

Importance of Breast feeding For Child

- Breastfeeding is a child's first inoculation against death, disease and poverty. According to the latest scientific evidence; breastfeeding is our most enduring investment in physical, cognitive and social capacity development.
- Breastfeeding creates a special bond between mother and baby and the interaction between the mother and child during breastfeeding has positive impact for life, in terms of stimulation, behaviour, speech, sense of well-being, security and how the child relates to other people. **Kangaroo mother care**, also known as skin-to-skin care, a technique in which the baby is kept in physical contact with its mother is touted to be the best forms of care for making the baby feel more secure and calmer.
- Breastfeeding from the first hour of birth ensures that infants consume the colostrum, which is the first secretion from the mammary glands after giving birth. Said to be **high in antibodies**, colostrum reduces the risk of death from hypothermia and helps in epithelial recovery.
- The antibodies also help the baby **fight against virus and bacteria**. Babies who are fed breastmilk exclusively for their first 6 months are lesser prone to diarrhoea, pneumonia, ear infections, allergies and respiratory illness.
- Breast milk is considered to be a **baby's first vaccine**. It is rich with immune and non-immune components which resist infection and also **accelerate intestinal maturation** in a child.
- Breastmilk provides ideal nutrition to infants. It has the perfect blend of fat, vitamins, proteins and everything else that the baby needs for healthy growth.
- Breastfeeding within the first hour of birth protects newborn babies from infections. Infants are at greater risk of death due to diarrhoea and other infections in the absence of breastfeeding.
- It improves immune system of the child.
- Breastfeeding also improves IQ, school readiness and attendance, and is associated with higher income in adult life.
- According to Lancet report, a non-breastfed child is 14 times more likely to die in the first six months than an exclusively breastfed child.
- According to WHO, breastfeeding for the first 2 years would save the lives of more than 8,20,000 children under age 5 annually.
- Therefore, WHO recommends exclusive breastfeeding for the first six months of an infant's life. Local, nutritious foods should be introduced, while breastfeeding continues for up to two years or beyond.

Importance of Breast Feeding For Mother

- It releases the hormone oxytocin, which **helps the uterus to return to its pre-pregnancy size** and also **helps in reducing uterine bleeding after birth**.
- It **lowers the risk of breast cancer and ovarian cancer** in mothers.

- Breastfeeding **helps to reduce the weight** which a mother has gained during pregnancy. As breast milk contains about 20 calories per ounce, feeding the baby automatically leads to weight reduction.
- Women who breastfeed have a **lower risk of postmenopausal osteoporosis**. The body of a pregnant and lactating woman absorbs calcium more efficiently

Breastfeeding Statistics in India

- Only 78.7% deliveries take place in hospitals.
- 44.6% of the newborns receive breastfeeding within one hour of birth.
- 64.9% of the newborns are exclusively breastfed for the first six months.
- Only 50.5% children between 6-8 months are given complementary foods.
- India accounts for **more than one fifth of world's neo natal deaths**. In 2016, India reported 6 lakh neo natal deaths out of the 26 lakh neo natal deaths reported globally.

In this backdrop India launched MAA (mothers' absolute affection), a National Breastfeeding Promotion Programme to ensure that adequate awareness is generated among masses, especially mothers, on the benefits of breastfeeding.

Barriers To Breast Feeding

- Many women become mothers at an early age when they are not healthy enough to bear a child. **Poor health of the lactating mother** leads to insufficient production of milk due to which many women stop breastfeeding midway.
- **Working mothers are pressed for time** and are left with little time on their hands to breastfeed the child.
- **Easy availability of infant formula food** coupled with **lack of awareness** has created a culture of dependence on these ready to use products.
- **Breastfeeding in public is considered a taboo**. Every now and then mothers are forced to defend their right to nurse their babies in public. Malayalam magazine Grihalakshmi's March issue this year featured model Gilu Joseph nursing a baby which led to the creation of a huge controversy.

Conclusion

The drops of breastmilk are actually the **golden drops** that in every way are **a gift from a mother to the baby** for their healthier future. In a world filled with inequality, crises and poverty breastfeeding is the **strongest foundation for lifelong health and optimal nutrition**, and the best chance possible of achieving the highest attainable standard of health.

Three Northeastern States Emerge As New HIV Hotspots

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

In News

- According to the Ministry of Health and Family Welfare, **Meghalaya, Mizoram and Tripura** have emerged as the new hotspots for HIV. However, the good news is that there has been a steady decline in the number of HIV cases in India.
- The Ministry attributed the reason for the rise in the three northeastern States to the high-risk behaviour of Injecting Drug Users (IDUs), and unsafe sexual practices.

What is AIDS

- **Acquired Immunodeficiency Syndrome (AIDS)** is a life-threatening disease caused by the **Human Immunodeficiency Virus (HIV)**. HIV makes it difficult for the body to fight infections.
- As the infection progresses, it interferes more with the immune system, increasing the risk of developing common infections such as tuberculosis, as well as other opportunistic infections that rarely affect people who have a good immune system. These late symptoms of infection are referred to as acquired immunodeficiency syndrome (AIDS).
- The medicines that treat HIV are called antiretroviral drugs and the consequent therapy is called **Anti-Retroviral Therapy (ART)**. Although there is no cure for HIV, ART leads to effectively suppressing the virus and reducing the transmission of HIV from the infected person.
- In India, almost 12.28 lakh people are covered under ART. The target is to bring 90% of the 21 lakh people living with the HIV infection in India under ART.

NACO

National AIDS Control Organisation (NACO), established in **1992** is a division of Ministry of Health and Family Welfare. It is delegated with the responsibility of formulating, implementing and monitoring policies concerning prevention and control of HIV and AIDS in the country; in addition, it also manages the **National Aids Control Programme (NACP)**. Under NACP, administrative and technical basis for programme management was established.

WORLD AIDS DAY

World AIDS Day is held on **1st December** each year. The Day is treated like an opportunity for people worldwide to unite in their fight against HIV, show their support for people living with HIV and to commemorate people who have died. World AIDS Day was the **first ever global health day** and the **first one was held in 1988**.

UN Report

- A new report from Joint UN Agency on AIDS (UNAIDS) titled '**Miles to go - closing gaps, breaking barriers, righting injustices**' bears good news for the global war against the syndrome. Between 2010 and 2017, several countries made rapid progress in reducing HIV incidence and getting antiretroviral therapy to patients.
- Today, three out of four people with HIV know their status, and 21.7 million get treatment.
- India, in particular, brought down the number of new cases and deaths by 27% and 56%, respectively, between 2010 and 2017. Also, India has done better than the global average in reducing HIV infections and AIDS-related deaths.
- Tuberculosis is the biggest killer of HIV patients across the world. India is now able to treat over 90% of notified TB patients for HIV.

- Social stigma surrounding AIDS-infected people in India, while high, is declining slowly too.
- But even as India celebrates such progress, it is important to be mindful of the scale of the challenge. With 2.1 million cases, India is among the largest burden countries in the world. And there are critical gaps in its strategy.

Way forward

- The need of the hour is to develop **rights-based, evidence-informed, and community-owned programmes** that use a mix of **biomedical, behavioural, and structural interventions**, so as to have a sustained impact on reducing new infections.
- **Behavioural Interventions:** Behavioural interventions seek to reduce the risk of HIV transmission by addressing risky behaviours through awareness programmes. It may include reducing the number of sexual partners individuals have; improving treatment adherence among people living with HIV; increasing the use of clean needles among people who inject drugs; or increasing the consistent and correct use of condoms.
- **Biomedical interventions:** Biomedical interventions use a mix of clinical and medical approaches to reduce HIV transmission. Examples of biomedical interventions include: Sex and reproductive health services, Voluntary medical male circumcision, Antiretroviral drugs for the prevention of mother to child transmission, pre-exposure prophylaxis, post-exposure prophylaxis, HIV testing and counselling etc.
- **Structural interventions:** Structural interventions seek to address underlying factors that make individuals or groups vulnerable to HIV infection. These can be **social, economic, political or environmental**. The fact that 90% of the world's HIV infections occur in developing countries is evidence that social, economic and political structures drive risky behaviours and shape vulnerability. To address these issues, the following key structural interventions are recommended by UNAIDS:
 - Strengthen legislation, law enforcement and programmes to end intimate partner violence
 - Increase girls' access to secondary education.
 - Use cash transfers to empower women economically, to keep them in school and to enable them to make healthy partner choices.
 - Remove third-party authorisation requirements and other barriers to women and young people's access to HIV and sexual and reproductive health services.
 - Decriminalise same-sex relationships, cross-dressing, drug possession and use for personal consumption.
 - Bring to scale community empowerment and other programmes that have been proven to reduce stigma, discrimination and marginalisation, including in health care settings.

Conclusion

Right to health is a fundamental right under the Constitution of India. Hence it is expedient that the government adopts a multi modal approach to keep a check on this debilitating disease and stays on course to achieve the SDG of ending the epidemic of AIDS by 2030.

WHO Lauds SBM-Gramin

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

In News

- WHO has released a progress report on potential health impacts from increased sanitation coverage through **Swachh Bharat Mission - Gramin**.
- The report lauds India's commitment of accelerated coverage of safe sanitation services which, assuming 100% coverage is achieved by October 2019, could **avert up to 300,000 deaths due to diarrhoeal disease and protein-energy malnutrition (PEM)** by reducing mortality and accumulative Disability Adjusted Life Years (DALYs) – the sum of the years of life lost due to premature mortality and years lost due to disability or ill-health since the country launched the Swachh Bharat Mission in 2014.
- This is remarkable given that before 2014 unsafe sanitation **caused an estimated 199 million cases of diarrhoea annually**. Globally, diarrhoeal disease is the second leading cause of under-five mortality, while lack of clean water and sanitation is also a major contributor to malnutrition.
- Broader health impact of India's commitment to accelerated sanitation coverage include **improved overall nutritional status and reduced incidence of infectious diseases** such as neglected tropical diseases and acute respiratory infections, as well as vector-borne diseases.

Improved sanitation coverage also helps India to achieve the Sustainable Development Goals, including **SDG 6**, under which countries have to ensure access to safe water and sanitation for all, and **SDG 3**, which obliges them to ensure healthy lives and promote wellbeing for all at all ages.

Aspirational Districts - Rashtriya Uchchar Shiksha Abhiyan (RUSA)

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

In News

- NITI Aayog has identified 117 districts as **Aspirational Districts**. These districts have been selected on the basis of **composite index** which includes published data of deprivation enumerated under Socio-Economic Caste Census, health & nutrition, education and basic infrastructure.
- An Expert Committee, constituted by the University Grants Commission (UGC), had identified 374 Educationally Backward Districts (EBDs) where Gross Enrolment Ratio (GER) in higher education was less than the national average of 25.2% based on All India Higher Education Survey (AIHES) released by the HRD Ministry.
- During the **second phase** of the Centrally Sponsored Scheme of Rashtriya Uchchar Shiksha Abhiyan (RUSA), central assistance is provided for opening of **new Model Degree Colleges (MDCs) in Aspirational Districts** and in unserved & underserved districts in North Eastern and Himalayan States.
- The Project Approval Board (PAB) of RUSA has approved central support for **one MDC each in 70 such districts**. The central support provided under the component of new MDCs is infrastructural

in nature in which funds are released for creation of Colleges with requisite infrastructure such as appropriate number of class rooms, library, laboratory, faculty rooms, toilet blocks, and other essential requirements for technologically advanced facilities.

- Further, under this component, a commitment is given by the State Governments that **all recurring expenditure** (including salaries), in respect of the MDCs being established, **will be borne by the respective State Government**.
- Additionally, under a separate component of RUSA viz., **Faculty Recruitment Support**, central support is provided for creation of additional posts of Assistant Professors subject to specific norms and approved period of the scheme (i.e. upto 31st March 2020). Further, under this component, a commitment is required to be given by the State Governments to take over liability of such faculty positions after 31st March 2020.
- While in March, the budget of the Rashtriya Uchchar Shiksha Abhiyan (Rusa) was increased four times. The scheme would now cost Rs 96 billion, of which the Centre would contribute Rs 71 billion.

Rashtriya Uchchar Shiksha Abhiyan (RUSA)

- RUSA's aim is to **improve access, equity and quality** in higher education through planned development of higher education at the state level.
- Its objectives include creating new academic institutions, expanding and upgrading the existing ones, developing institutions that are self-reliant in terms of quality education, professionally managed and characterised by greater inclination towards research and provide students with education that is relevant to them as well as the nation as a whole.

HRD Ministry Approves Norms Against Plagiarism

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

In News

- The Human Resource Development Ministry has approved new regulations on plagiarism drafted by the University Grants Commission (UGC) and notified the **UGC (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Education Institutions) Regulations, 2018**.
- The move is part of the ministry's effort to improve the quality of education and research in universities and institutes of higher learning; it recently made **PhDs mandatory for teaching at the university level** starting 2021.
- One of the main objectives of UGC's anti-plagiarism regulations is to create awareness about responsible conduct of research in promotion of academic integrity and prevent misconduct.

Features Of The Regulation

- For **students**, in non-core areas, plagiarism of up to 10% would not invite any penalty while that of **between 10% and 40%** would entail the submission of a **revised research paper within six months**.

- In case, the similarities are **between 40 and 60%**, students will be **debarred from submitting a revised paper for one year**. A student's **registration** for a programme will be **cancelled** if the similarities are **above 60%**.
- **Teachers** whose academic and research papers have similarities ranging from **10 to 40%** with other papers will be asked to **withdraw the manuscript**. In case the similarities are **between 40 and 60%**, they will **not be allowed to supervise new masters, M.Phil, PhD students for two years and will also be denied the right to one annual increment**. In case of repeat plagiarism of over 60% similarity, the faculty members will be suspended, even dismissed.
- If any member of the academic community suspects plagiarism, he or she shall report it to the Departmental Academic Integrity Panel (DAIP). Upon receipt of such a complaint or allegation the DAIP shall investigate the matter and submit its recommendations to the Institutional Academic Integrity Panel (IAIP) of the Higher Education Institutions (HEI).
- This year, PhD, MPhil and Masters students are also likely to **study responsible conduct of research and publication ethics** as a compulsory course work or module.

Conclusion

India has been witness to several plagiarism charges against central university vice-chancellors and teachers in the past few years which not only brings a bad name to the country's academic circles but also vitiates the academic culture of our universities. The step will surely go a long way in setting the right precedents and aid in the creation of a robust research ecosystem in the country.

IMPRINT 2

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

In News

- Ministry of Human Resource Development (MoHRD) has approved 122 new research projects at a cost of Rs.112 crore under **IMPRINT-2** .
- IMPRINT-2 has been approved with a revised strategy under which the initiative will be jointly funded and steered by **MoHRD** and **Department of Science and Technology (DST)**.
- For the second phase, the government has sanctioned a fund of Rs. **1000 crore** for research in Science and Technology which will be provided over the course of next two years, i.e. 2018-19 and 2019-20.
- The projects that have been approved cover domains such as Energy, Security, Healthcare, Advanced Materials, ICT, and Security/Defence domains.
- Of the 122 new IMPRINT projects sanctioned, 81 are sponsored by industry. This **industry-academic collaboration will bring excellence in research**.

- IMPRINT proposals are now **open for higher education institutions including private institutions** bringing a spirit of competition.
- The knowledge portal for monitoring the progress of research projects and to disseminate findings will be launched in October 2018.

IMPRINT

- IMPRINT is a first of its kind initiative which is a Pan-IIT + IISc joint initiative. It not only addresses development of new engineering education policy but is also instrumental in creating a road map to pursue engineering challenges.
- IMPRINT provides the overarching vision that guides research into areas that are **predominantly socially relevant**. The principal objective is to **translate knowledge into viable technology**.
- It aims to address the major science and engineering challenges that India must address and champion to enable, **empower and embolden the nation for inclusive growth and self-reliance**.

Global Innovation Index (GII) 2018

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

In News

- At the India launch of Global Innovation Index 2018 in New Delhi, NITI Aayog announced that it will join hands with CII to drive innovation in the country.
- The launch was organized by Confederation of Indian Industry (CII) - one of the founding partners of GI along with World Intellectual Property Organization (WIPO), in collaboration with the Department of Industrial Policy and Promotion (DIPP).

About GI

- GI is published by **Cornell University, INSEAD, and the World Intellectual Property Organisation**, in partnership with other organisations and institutions.
- It is a leading reference for measuring a country's innovation performance. Now in its second decade, the GI has established itself as a **tool for action** for decision makers, leading to the improvement of innovation metrics, the removal of obstacles to innovation, and the shaping of efficient national innovation policy strategies.
- The GI indicators are grouped into **innovation inputs and outputs**. Innovation inputs capture the efforts made by the country to boost innovation. Innovation outputs measure the results of these efforts in terms of scientific publications, patents, trademarks, production, exports, and other outputs.
- It provides an opportunity to look at examples from similar economies from across the world and understand how change was brought about those countries.
- This year's theme is **Energizing the World with Innovation** which looks at innovation taking place in the energy sector around the world.

- **Switzerland** continued its long run of being at the top. It has been at the top of the list since 2011.
- Other countries in the **top 5** are Netherlands, Sweden, UK and Singapore.
- China, at 17, broke into the world's top 20 most-innovative economies for the first time.

India's Performance

- India's rank on the GII has improved from 60th in 2017 to **57th in 2018**. India has been consistently climbing the GII ranking for the past two years. Its position improved from 80th in 2015 to 66th in 2016 after sliding for successive five years.
- Positioning in the top half of the GII ranking, India ranks well in several important innovation inputs, including graduates in science and engineering, expenditures of major R&D-intensive global companies, and capital formation.
- India earns excellent positions in ICT services exports, where it ranks first in the world, and labour productivity growth, where it is 4th globally. India is 2nd among middle-income economies (after China) in the indicators that capture the quality of the innovation inputs and outputs.
- In particular, the country ranks well in the quality of its scientific publication and local universities because of higher scores for the IISc Bangalore and the IIT.

NITI Aayog's Suggestions

At the conference NITI Aayog underlined the need to

- Transform India's Innovation Ecosystem by formulating a **New Innovation Policy** to attract R&D investment into cutting edge technologies and build appropriate infrastructure and institutions.
- Tap global hotspots of innovation in latest technologies like AI, Blockchain and Robotics etc.
- Connect Tinkering labs in schools with start-ups, business and high-end educational institutions.
- Target efficient, productive, and outcome driven R&D in the Government Sector

Digital Literacy Library by Facebook

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

In News

- Facebook recently announced the launch of a **Digital Literacy Library** to help young people build the skills they need to **safely enjoy online technology**.
- The interactive lessons and videos, developed in partnership with the team at the Berkman Klein Center for Internet and Society at **Harvard University** for educators of youth aged 11 to 18, can be downloaded for free.
- Created from more than 10 years of academic research and built in consultation with teens, the curriculum is divided into five themes: **Privacy and Reputation, Identity Exploration, Positive Behavior, Security, and Community Engagement**. The lessons reflect the voices of young people from diverse geographies, socio-economic backgrounds, ethnicities and education levels.

- The lessons work well together or on their own, in after-school programmes or at home, and can be modified to incorporate educators' own experiences and ideas
- There are 830 million young people online around the world and due to the lack of digital literacy they are **exposed to various risks** – they're susceptible to believe hoaxes, propaganda and fake news; they risk their personal data by using insecure apps; they become addicted to social media and its feedback loop of likes; they bully and/or are bullied; and they don't take steps to protect their online reputation which can have real-world consequences.
- Earlier this year Facebook added a **Youth Portal**, which includes tips for young people on things like security and reporting content, as well as advice and first-person accounts from teenagers around the world about how they are using technology.
- In addition, Facebook has begun to roll out educational guidance into its new app, **Messenger Kids**, aimed at the under-13 crowd. The app encourages children to be kind and respectful online by **promoting empathy and positive messaging** through things like the "Messenger Kids Pledge," kindness stickers, and other in-app challenges.
- These platforms will not only help the youth to better navigate the internet in a positive and a responsible way but also help the current generation to **think critically and grow into responsible citizens**.

International Relations

Postal Highway

Syllabus: India and its neighbourhood- relations.

In News

- The Indian Government has released additional NPR 470 million (Nepali Rupees) for the Postal Highway being constructed in Southern Plains of Nepal.
- The amount has been released to maintain fund liquidity for the ongoing construction of 14 road packages under Postal Highway Project.
- With this payment, a total of NPR 2.35 billion stands released to the Government of Nepal out of the total grant assistance of NPR 8.00 billion committed by the Government of India for implementing 14 packages under Packages 2-6 of Phase I of the Postal Highway Project.

About The Project

- Postal Highway is also called **Hulaki Rajmarg** which runs across the Terai region of Nepal, from Bhadrapur in the east to Dodhara in the west, cutting across the entire width of the country.
- It is oldest highway in Nepal constructed by Juddha Shumsher Jung Bahadur Rana & Padma Shumsher Jung Bahadur Rana to aid transportation and facilitate postal services throughout the nation.

China Detains One Million Ethnic Uighurs

In News

- A UN human rights committee has heard there were credible reports that China is holding a million ethnic Uighurs in counter-extremism centres.
- A member of the UN Committee on the Elimination of Racial Discrimination, raised the claims at a two-day UN meeting on China.

Key Highlights

- There are reports that Beijing had turned the Uighur autonomous region into something that resembles a massive internment camp.
- Human rights groups including Amnesty International and Human Rights Watch have submitted reports to the UN committee documenting claims of mass imprisonment, in camps where inmates are forced to swear loyalty to China's President Xi Jinping.
- The reports claim that detainees are held indefinitely without charge, and forced to shout Communist Party slogans.
- These detentions are being carried out under the guise of combating religious extremism.
- However, Chinese government denies the existence of these camps.

Who are the Uighurs

- The Uighurs are a Muslim ethnic minority mostly based in China's Xinjiang province. They make up around 45% of the population there.
- Xinjiang is officially designated as an autonomous region within China, like Tibet to its south.

Committee On The Elimination Of Racial Discrimination

- The Committee on the Elimination of Racial Discrimination (CERD) is the body of independent experts that monitors implementation of the Convention on the Elimination of All Forms of Racial Discrimination by its State parties.
- All States parties are obliged to submit regular reports to the Committee on how the rights are being implemented.
- States must report initially one year after acceding to the Convention and then every two years. The Committee examines each report and addresses its concerns and recommendations to the State party in the form of "concluding observations".
- In addition to the reporting procedure, the Convention establishes *three other mechanisms* through which the Committee performs its monitoring functions: **the early-warning procedure, the examination of inter-state complaints and the examination of individual complaints.**
- The Committee also publishes its interpretation of the content of human rights provisions, known as *general recommendations (or general comments), on thematic issues and organizes thematic discussions.*
- The Committee meets in Geneva and normally hold three sessions per year consisting of three-

four-three weeks per year.

International Convention on the Elimination of All Forms of Racial Discrimination (ICERD)

- It is a United Nations convention, which its members to the elimination of racial discrimination and the promotion of understanding among all races.
- The Convention also requires its parties to outlaw hate speech and criminalize membership in racist organizations.
- It was adopted and opened for signature by the United Nations General Assembly on 21 December 1965, and entered into force on 4 January 1969.

What are the ICERD's limitations?

- The CERD has encountered persistent difficulties with getting some countries to submit reports. The CERD still reviews countries that do not submit reports, but this lack of reporting is seen by some as a substantial failure of the ICERD.
- Further, whilst the number of States signed up to the ICERD is impressive, many countries have only agreed to be bound with certain reservations, for example the United States of America does not accept any part of the Convention that would oblige the USA to criminalise hate speech.

Accord With Russia Signed for Training of Pakistani Troops

Syllabus: India and its neighbourhood- relations.

In News

- Pakistan and Russia has signed an agreement that allows for training of Pakistani troops at Russian military training institutes.
- The agreement was signed at the conclusion of the first meeting of Russia-Pakistan Joint Military Consultative Committee (JMCC), which is described as the highest forum of defence collaboration between Pakistan and the Russian Federation.

Pakistan – Russia Defence Ties

- Pakistan's defence ties with Russia have moved past the bitter Cold War hostilities in recent years and the chill in the relations between Pakistan and the US has further pushed the country towards Russia and China.
 - Russia is also looking for a market to sell weapons.
 - In 2014, both side signed defense cooperation agreement which lifted a long-running Russian embargo on arms sales to Pakistan.
 - Russia has over the past three years provided four Mi-35M combat and cargo helicopters to Pakistan and the militaries of the two countries also held joint drills codenamed '**Friendship**'.
- Days after Islamabad and Moscow signed this agreement, Trump administration has suspended more than a decade-long military training programme of Pakistani personnel at the US institutions.

Sweden's Feminist Foreign Policy**In News**

- On 23 August, Minister for Foreign Affairs of Sweden Margot Wallström presented a handbook on Sweden's feminist foreign policy.
- The policy has been released as a prerequisite for reaching Sweden's broader foreign policy goals on peace, and security and sustainable development and to ensure that women and girls can enjoy their fundamental human rights is both an obligation within the framework of our international commitments.

Key Highlights

- Released in the form of handbook, the manual showcases lessons from the nation's flagship approach to promote women's rights globally.
- It was published on the Swedish government's website and is derived from four years of work to place gender equality at the heart of the country's international agenda.
- Sweden is the first country in the world to pursue a feminist foreign policy. The aim is to contribute to gender equality and the full enjoyment of human rights by all women and girls.
- Key Goals of the Policy include:
 - the promotion of economic emancipation, fighting sexual violence and improving women's political participation
 - an action plan for five war-torn and post-conflict nations – Afghanistan, Colombia, Democratic Republic of Congo, Liberia and the Palestinian Territories – building in targets for women's rights and empowerment for the first time.
- The handbook highlighted Sweden's work in Congo to promote "positive masculinity" in the country, where it is has run initiatives such as promoting social media debate on men's role in society.
- The term feminist has been used in the manual so as to demonstrate that women and men should enjoy the same rights, the same duties and the same opportunities in society.

Analysis

- Sweden began its feminist foreign policy "in response to the discrimination and systematic subordination that still mark the daily lives of countless women and girls around the world".
- In this context, the strategy has not faced any "backlashes" but rather inspired other countries such as Canada and France to follow suit.
- However, it is too early to draw any conclusions about whether the feminist approach leads to significant change. For example, it is impossible to say if this policy has reduced the number of women dying in childbirth in Africa or benefitted other populations.
- But it had garnered widespread attention and enhanced Sweden's image.
- On the other hand, critics say a feminist strategy cannot escape the constraints of global politics. While Sweden defines itself as a "humanitarian superpower", it is also a major exporter of fighter jets and missile batteries.

- They further claim that the Nordic nation did not vote no -- it abstained -- when Saudi Arabia was elected into the UN women's rights commission last year.

Fact:

There has been a growing influence of women in Sweden's own foreign service with the nation seeing a rapid increase in the number of women ambassadors, from just 10 per cent in 1996 to 40 per cent in 2016.

Caspian Sea Oil And Gas Agreement

Syllabus: Effect of policies and politics of developed and developing countries on India's interests

In News

- The leaders of Russia, Iran, Azerbaijan, Kazakhstan and Turkmenistan - all bordering the Caspian Sea - have signed the *Convention on the Legal Status of the Caspian Sea* in the Kazakh city of Aktau.
- The agreement establishes a formula for dividing up its resources and prevents other powers from setting up a military presence there.

**Caspian Sea: A Resource Rich Region**

- It is the world's largest inland body of water, which bridges Asia and Europe.
- It is estimated there are 50 billion barrels of oil and nearly 300 trillion cubic feet (8.4 trillion cubic metres) of natural gas beneath Caspian sea.
- The Caspian Sea has a number of different species of sturgeon, the fish that yields the highly prized delicacy caviar.
- Between 80-90% of the world's caviar is sourced from the Caspian, but the numbers have been falling over the past few decades.

Key Highlights

- The signed convention gives the body of water a "special legal status" which means it is not defined as a sea or a lake.
- The surface water will be in common usage, meaning freedom of access for all littoral states beyond territorial waters. But the seabed - which is rich in natural resources - will be divided up.
- The delimitation of the seabed – which has caused most disputes – will require additional agreements between the nations bordering the sea.
- The agreement has established 15-mile-wide (24km) territorial waters whose borders become state borders and adjacent to the territorial waters are 10 miles of fishing water where each state has exclusive fishing rights.
- The convention explicitly barred any armed presence on the Caspian Sea other than that of the littoral states.

What Was The Dispute

- It would be reasonable to assume that the Caspian Sea is, well, a sea. But at the heart of this long-running dispute is whether or not the 370,000 sq km (143,000 sq mile) body of landlocked water should be considered a lake.
- Until the dissolution of the Soviet Union (USSR) in 1991, the resources of this region used to be shared between the USSR and Iran.
- But the arrival on the scene of new countries complicated this issue, with ensuing claim and counterclaim. Iran had argued it was a lake and not a sea, but none of four other countries agreed.
- If it was treated as a sea, then it would be covered by international maritime law, namely the United Nations Law of the Sea.
- This binding document sets rules on how countries can use the world's oceans. It covers areas such as the management of natural resources, territorial rights, and the environment. And it is not limited to littoral states, meaning others can seek access to its resources.
- But if it is defined as a lake, then it would have to be divided equally between all five countries.
- In negotiations with post-Soviet nations, Tehran has insisted on either splitting the sea into five equal parts or jointly developing all of its resources. None of its neighbours have agreed to those proposals and three of them – Russia, Kazakhstan and Azerbaijan – effectively split the northern Caspian between each other using median lines.

Analysis

- The agreement, although in principle, will decide how to divide up the potentially huge oil and gas resources of the Caspian Sea, paving way for more energy exploration and pipeline projects.
- In the past, some countries have pressed ahead with large offshore projects such as the Kashagan oil field off Kazakhstan's coast. However, disagreement over the sea's legal status has prevented some other ideas from being implemented. Hence, it would pave the way for the implementation of major projects in this region.
- Pipeline project across the Caspian which could ship natural gas from Turkmenistan to Azerbaijan and then further to Europe will get a boost after this agreement.
- The document is no final solution and border delimitation would require further work and separate agreements, although the convention would serve as a basis for that.
- It also remained unclear whether the convention adopted would definitely clear a way for the pipeline. Kazakh president Nursultan Nazarbayev said the document allowed pipelines to be laid as long as certain environmental standards were met.
- Since the final text of the deal is yet to be published, it would not be possible to analyse which country has gained the most. But because the deal does not define the Caspian as a lake, Iran - which has the smallest coastline - is viewed as a potential loser.
- However, Iran - which is currently under growing political and economic pressure from the West - might see some political benefits in securing the clause that bars any armed presence on the Caspian other than that of the five littoral states.

Venezuela's Crisis

Syllabus: Effect of policies and politics of developed and developing countries on India's interests

Context

- Venezuela's economy is in freefall. Hyperinflation, power cuts, and food and medicine shortages are driving millions of Venezuelans out of the country.
- Since 2014, the UN's International Organization for Migration estimates that 2.3 million Venezuelans have fled their country, desperate to escape economic and political turmoil, hunger and violence.

What Is Wrong With Venezuela

- Arguably the biggest problem facing Venezuelans in their day-to-day lives is hyperinflation. The annual inflation rate reached 83,000% in July 2018.
- Prices have been doubling every 26 days on average. This has resulted in many Venezuelans struggling to afford basic items such as food and toiletries.
- Maduro's government blames the problems on an "economic war" waged by business owners, Colombia and the U.S. It blames "hoarding" by speculators for food shortages and has urged the population to rally to the defence of the state.

How Did Hyperinflation Come About

- Venezuela is rich in oil, and has the largest proven reserves in the world. But arguably it's this exact wealth that underpins many of its economic problems.
- Because it has so much oil, Venezuela has never bothered to produce much else. It sells oil to other countries, and with the dollars it earns, imports the goods Venezuelans want and need from abroad.
- Its oil revenues account for about 95% of its export earnings. But when the oil price plummeted in 2014, Venezuela was faced with a shortfall of foreign currency.
- This in turn made it difficult to import goods at the same level as before, and imported items became scarcer. The result: businesses increased prices and inflation rose.
- Adding to that was the government's willingness to print extra money and regularly hike the minimum wage in an effort to regain popularity with Venezuela's poor.

US Gives India Strategic Trade Authorisation-1 Status

Syllabus: Effect of policies and politics of developed and developing countries on India's interests

In News

- The Trump administration has placed India in the Strategic Trade Authorisation-1 (STA-1) list.
- This will ease the export of high-tech items to India as this move will grant it the same access as NATO allies — Australia, Japan and South Korea.

What Is Strategic Trade Authorisation (STA)

- STA allows for license exception with regards to exports from the US. This type of US government authorisation allows a certain item to be exported under defined conditions without a transaction-specific license.
- The STA exception is relevant to exports, re-exports and transfers for which a licence is required under the Export Administration Regulations – one of the two important US export control laws that affect the manufacturing, sales and distribution of technology.

Benefits Of STA-1 Status To India

- STA Tier 1 treatment, comparable with NATO allies, will expand the scope of exports subject to the EAR that can be made to India without individual licences.
- This regulatory change will enhance the bilateral defence trade relationship and result in a greater volume of US exports to India.
- This will help India getting critical and latest technology from the US in the defence as well as certain other key areas.
- This reflects a sign of trust not only in the relationship but also on India's capabilities as an economic and a security partner, because it also presupposes that India has the multilateral export control regime in place, which would allow the transfer of more sensitive defence technologies and dual use technologies to India and without the risk of any proliferation.

Visit of Indian External Affairs Minister to Kazakhstan, Kyrgyzstan and Uzbekistan

Syllabus: Effect of policies and politics of developed and developing countries on India's interests

In News

- External Affairs Minister Smt. Sushma Swaraj visited three countries in Central Asian region from 2-5 August 2018.
- She was in the Republic of Kazakhstan on 2 & 3 August, in the Kyrgyz Republic on 3 & 4 August and in the Republic of Uzbekistan on 4 & 5 August 2018.
- This visit was in pursuit of India's objective of enhanced engagement with this region which is India's extended neighbourhood. It will provide an opportunity to hold in-depth discussions with the political leadership on a wide range of global, regional and bilateral issues and will advance India's growing engagement with the Central Asian Region.

Key Highlights

- During her visit to Astana, EAM held a bilateral meeting with Mr. Kairat Abdrakhmanov, Minister of Foreign Affairs of the Republic of Kazakhstan.
- India and Kazakhstan have a close strategic partnership and multi-faceted relations. The bilateral relations between India and Kazakhstan have been strengthened by the visit of Prime Minister Shri Narendra Modi to Kazakhstan in 2015 and by his visit for SCO Summit in June 2017 when he had a productive meeting with the President of Kazakhstan.

- During next leg of visit, EAM went to Kyrgyzstan where she met Mr. Erlan Abdyldaev, Minister of Foreign Affairs of the Kyrgyz Republic.
- India and Kyrgyzstan share multi-dimensional relations including political, parliamentary, defence, science and technology and health.
- The bilateral visit of Prime Minister Shri Narendra Modi to the Kyrgyz Republic in July 2015 and of the then President of the Kyrgyz Republic to India in December 2016, as also interactions on the margins of SCO Summits, have consolidated the traditionally cordial and close ties between the two countries, providing impetus to further strengthening of bilateral ties.
- In the last segment of her three nation Central Asian tour, EAM arrived Tashkent. She held in-depth discussions with Mr. Abdulaziz Kamilov, Minister of Foreign Affairs of Uzbekistan.
- India and Uzbekistan enjoy a close strategic partnership. Bilateral relations between India and Uzbekistan have been strengthened by regular high level interactions. Prime Minister Shri Narendra Modi visited Uzbekistan in July 2015 and for SCO Summit in June 2016.

Significance Of Central Asia For India**Energy Security**

- Central Asia contains vast hydrocarbon fields both on-shore and off-shore in the Caspian Sea. These are home to an estimated 4 per cent of the world's natural gas reserves, and approximately 3 per cent of oil reserves.
- Most of these resources are found in Kazakhstan, Turkmenistan, and Uzbekistan, although Tajikistan and Kyrgyzstan also have potential for generating hydro-electric power.
- Central Asia has reserves of uranium ore plus the potential for its enrichment; so the region could be tapped as a source of uranium for India's civilian nuclear programme, which would in the long term help diversify its energy base.
- Over the past decade, India's state-owned Oil and Natural Gas Corporation (ONGC) has sought to invest in Kazakhstan, which has three of the world's richest oilfields. ONGC acquired sizeable stakes in the Alibekmola and Kurmangazy oilfields in Kazakh owned areas of the Caspian Sea.
- More recently ONGC attempted to buy a share of US company ConocoPhillip's holding in the Kashagan oilfield. However, although the Indian Government has begun investing in oil fields in Central Asia, its policy on how to transport this oil to the Indian market or work out oil swap deals is still evolving.
- Also, the Indian government has been engaged in the 1680 km-long Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline.

Geostrategic Importance

- The geostrategic location of the Central Asian states has made this region extremely pivotal. CARs lie at the crossroads of Russia, the Middle East, South Asia and the Far East. Any geopolitical changes in the region inevitably have its significance and impact on several states in the neighbourhood.
- Central Asia lies at the strategic junction between two nuclear powers, Russia and China, and at

the interface between Russia and the Islamic world. It shares borders with Afghanistan, which is a major source of spreading religious extremism in the region.

- Central Asia is of great strategic importance to India. Being placed in the middle of the Eurasian Continent, Central Asia is one of the most convenient routes of transit.
- Also, given the Kashmir angle, India cannot be walled off from the political developments which take place in the Central Asian region. Any advance by Islamic extremist groups in the CARs could invigorate similar elements active in Kashmir.

National Security and Stability in the Region

- The focus of relationship between the Central Asian Republics (CARs) and India can be defined by the importance of Central Asia for peace and stability in the region.
- India sees this region as a source of religious extremism and is concerned to check the rise of radical Islamist groups which may present a terrorist threat.
- These security concerns are compounded by the proliferation of drug-trafficking in Central Asia. Weak border management and high levels of corruption, coupled with the failure to stem opium production in Afghanistan, have made drug-trafficking an extremely lucrative industry.
- Central Asian region also remains highly vulnerable to the smuggling of fissile material for WMD. For example, the border and customs checkpoints in Kazakhstan have no special detection equipment for intercepting nuclear material. This region lies between two nuclear superpowers—Russia and China and also its neighbours, the two new nuclear powers, India and Pakistan.
- Over the past decade, New Delhi has sought to enhance its security assets in the region, notably through the acquisition of a first foreign military outpost in Tajikistan. Tajikistan is of particular concern for India since only a narrow 20 km stretch of Afghan territory separates it from Pakistan-administered Kashmir.
- India began to refurbish the airbase at Ayni in 2004.
- In July 2011, the Indian Defence Minister visited Kyrgyzstan and announced plans to open a joint military research centre there, as well as an initiative to train Kyrgyz soldiers to serve in UN peacekeeping missions.
- When India's Vice-President visited Tajikistan in April 2013, both governments stressed the importance of cooperation in dealing with anticipated security threats from Afghanistan, and India has established Joint Working Groups on Terrorism with Tajikistan and Kazakhstan.
- In 2017, India became a full member of Shanghai Cooperation Organisation (SCO). The SCO is one of the most prominent multilateral bodies with regard to Central Asia, and the issue of counter-terrorism regularly features on the agenda of SCO summits.

Commercial Interest

- Both India and Central Asia have economic complementarity in terms of resources, manpower and markets. These diverse resources can be pooled for a broader regional cooperation in Asia and to realise the potential of both the regions fully.
- Central Asia offers a relatively untapped market for Indian consumer goods as consumers in the

region have little to choose from highly priced, imported Western products or cheap but lower-quality Chinese manufactured goods that have flooded the region.

- Indian tea and pharmaceutical industries have already acquired a foothold in the Central Asian market. Potential for Indian investment and expertise in the areas of IT, banking, construction, and food processing is still untapped.
- On his April 2013 visit to Tajikistan, India's Vice President signed deals to expand bilateral cooperation in IT, energy, health, education, trade, commerce, mining, and agriculture, while there are also plans to collaborate with Tajikistan in establishing an IT centre of excellence and a Central Asia e-network.

SCO Peace Mission 2018

Syllabus: Bilateral, regional and global groupings and agreements.

In News

- Shanghai Cooperation Organization (SCO) Peace Mission 2018 exercise was started on 24 August 2018 at Chebarkul, Russia.
- All eight members of SCO ((China, Russia, Kyrgyzstan, Tajikistan, Kazakhstan, India and Pakistan) participated in this exercise.
- This exercise was aimed at enhancing cooperation between member states to deal with growing threat of terrorism and extremism.

Key Highlights

- This was the fifth edition of SCO Peace Mission Exercise where India and Pakistan participated for the first time.
- The exercise provided an opportunity to armies of all nations for greater cultural understanding, sharing experiences and strengthening mutual trust and cooperation.

India And SCO

About SCO

- The SCO is a permanent intergovernmental international organisation, the creation of which was announced in June 2001 in Shanghai (China) by the Republic of Kazakhstan, the People's Republic of China, the Kyrgyz Republic, the Russian Federation, the Republic of Tajikistan, and the Republic of Uzbekistan.
- SCO comprises eight member states, namely the Republic of India, the Republic of Kazakhstan, the People's Republic of China, the Kyrgyz Republic, the Islamic Republic of Pakistan, the Russian Federation, the Republic of Tajikistan, and the Republic of Uzbekistan;
- SCO counts four observer states, namely the Islamic Republic of Afghanistan, the Republic of Belarus, the Islamic Republic of Iran and the Republic of Mongolia;
- It has six dialogue partners, namely the Republic of Azerbaijan, the Republic of Armenia, the Kingdom of Cambodia, the Federal Democratic Republic of Nepal, the Republic of Turkey, and

the Democratic Socialist Republic of Sri Lanka.

- The SCO's main goals are as follows: strengthening mutual trust and neighbourliness among the member states; promoting their effective cooperation in politics, trade, the economy, research, technology and culture, as well as in education, energy, transport, tourism, environmental protection, and other areas; making joint efforts to maintain and ensure peace, security and stability in the region; and moving towards the establishment of a democratic, fair and rational new international political and economic order.

Analysis

- India got the permanent membership of Shanghai Cooperation Organisation along with Pakistan in the Shanghai cooperation summit, which took place in June 2017.
- India became an **observer** to the organization at the fifth SCO summit in **Astana, Kazakhstan in 2005**.

Significance of SCO for India

- India's security, geopolitical, strategic and economic interests are closely intertwined with developments in the region.
- The ever present and expanding challenges of terrorism, radicalism and instability pose a grave threat to the sovereignty and integrity not only of India but also of countries in its broader neighborhood. India feels as an SCO member it will be able to play a major role in addressing these threats.
- New Delhi is also keen on deepening its security-related cooperation with the SCO and its Regional Anti-Terrorism Structure (RATS) which specifically deals with issues relating to security and defence.
- In addition, the Central Asian region is richly endowed with natural resources and vital minerals. With the Central Asian states landlocked and Uzbekistan even doubly landlocked, accessing these resources becomes arduous and prohibitive.
- To get around the lack of direct land connectivity with Central Asia and Pakistan's refusal to provide access through its territory, India is actively collaborating to develop the Iranian seaport of Chabahar with possible financial and technical support from Japan. India has also prioritized the construction of the International North-South Transport Corridor. Joining the SCO will be a welcome diplomatic boost to India's efforts to connect with Central Asia.
- India's membership in the SCO will provide a welcome opportunity for India's leadership to meet with their counterparts from Central Asia, Russia, China, Afghanistan and others regularly and frequently. India's potential participation in the Eurasian Economic Union (EEU) will be an added advantage to make this partnership more fruitful.

Importance of India for SCO

- India's membership in the SCO adds further strength and muscle to the organization, particularly against the backdrop of continuing weakness in the international economy and anemic global demand.

- India today is the fastest expanding global economy. It represents the third largest economy (\$8 trillion) in PPP (Purchasing Power Parity) terms and seventh largest (\$2.3 trillion) in nominal dollar terms. It also inspires confidence on other indicators such as FDI, inward remittances, savings rate and pace of economic reforms.
- SCO members also are well aware that India is an energy deficient country. Central Asia and Russia are extremely well endowed with fossil fuels including oil, gas and coal as well as uranium and hydropower potential. India's rapidly expanding energy needs will provide a stable and assured market for these countries.
- India's vast experience in dealing with the terrorism can help Central Asian countries to counter the menace of global terrorism. India is playing active role in Afghanistan and Iran.
- India could bring to the SCO table its techno-economic expertise, market and multi-cultural settings for the benefit of the region.

Challenges Faced by India at SCO

- India will have to tread cautiously as there might be a possibility that SCO might be used as a counterweight against USA.
- Building greater convergence with China and Russia
- Fragile nature of SCO as Central Asian countries keep changing their position regularly in line with their interests.
- Differences between India and Pakistan on the issue of connecting south Asia with central Asia might hamper the functioning of the SCO as it has halted the growth of south Asia's own regional organisation -- the South Asian Association for Regional Cooperation or SAARC.
- China's approach towards Pakistani terrorists like Masood Azhar & Lakhwi
- All members of SCO have supported OBOR except India. It might lead to isolation of India on this platform.
- It would be difficult for India to overcome the burden of geography and make tangible gains in terms of trans-regional connectivity.

Indo-Pacific Business Forum

Syllabus: Bilateral, regional and global groupings and agreements

In News

- US Secretary of State Mike Pompeo has launched the Indo-Pacific Business Forum in Washington DC as the economic pillar for US' Indo-Pacific Strategy.
- The forum will serve as an instrument to expand the US's economic role in the region.

Key Highlights

- The Indo-Pacific Business Forum will bring together key U.S. Cabinet Secretaries and senior leaders from government and business to discuss how government tools and policies can facilitate private sector partnerships to unleash the full potential of the Indo-Pacific region.
- The Forum will also include the announcement of several initiatives in sectors such as energy, infrastructure, and the digital economy.

Need For Such Forum

- The Indo-Pacific has emerged as a critical engine for growth, with Asian economies projected to create 50% of global GDP in the coming decades.
- To realize that potential, the countries of the Indo-Pacific will need to attract nearly \$26 trillion in capital to fund their energy and infrastructure needs.
- The United States will be a critical player in both investing the capital, and building the technology and infrastructure that the region requires.
- The Indo-Pacific also represents one of the most important and fastest-growing markets for U.S. goods and services.

Analysis

- The move comes nine months after the Trump administration openly spoke against the “predatory economic policies of Asian giant” that threatens to eat into sovereignty of countries in Indo-Pacific, which has now emerged as a critical engine for growth.
- Washington's latest moves appear to be aimed at a potential Chinese vulnerability – its reliance on trade surpluses and strong foreign exchange reserves to help finance Beijing's overseas power projection.

Analysis Of India's Position

- India has reportedly decided not to join the US-led counter to China's Belt and Road Initiative (BRI).
- The US initiative, which is a trilateral one involving Japan and Australia, was launched at the first Indo-Pacific Business Forum meeting and seeks to fund infrastructure projects in the region for which about USD 113 billion has been earmarked. India has opted to stay out of this initiative and thus maintain a fine balance between the US and China.
- Many analysts have criticized this step of India since it is a confusing strategy that involves sitting on the fence and, at times, even appeasing the Chinese. Arguably, India could take advantage of the vulnerabilities in the Chinese system and gain an upper hand in the asymmetric power equation that has developed vis-a-vis China.
- Geopolitically, President Trump's outreach to North Korea and advocacy of an Indo-Pacific strategy are eroding China's geopolitical manoeuvrability.
- Economically, the ongoing trade war between the US and China is expected to hurt China's growth, and that could very well mean the erosion of the Communist Party's credibility given that it draws its legitimacy from continued good economic performance.

- Many analysts believe that in dealing with China, India should thus be aware of the former's deep insecurities and vulnerabilities.
- It should shape its China policy from such 'knowing' and not from a superficial analysis of the immediate global circumstances.
- India should reconsider joining the US-led counter to the BRI, albeit after scrupulous negotiations that both uphold its foreign policy interests and shield it from the dragon's wrath.

BIMSTEC Summit 2018

Syllabus: Bilateral, regional and global groupings and agreements

In News

- The fourth BIMSTEC Summit that was held in Kathmandu on 30-31 August.
- It concluded with the leaders reaffirming their strong commitment to make BIMSTEC a dynamic, effective and result-oriented regional organization.
- The Kathmandu Declaration underlined the importance of multidimensional connectivity as a key enabler for economic integration and shared prosperity of the region.

Key Highlights

- Kathmandu declaration reiterated strong commitment to combat terrorism.
- In this context, the leaders called upon all countries to devise a comprehensive approach to prevent financing of terrorists and terrorist actions from territories under their control, blocking recruitment and cross-border movement of terrorists, countering radicalization, countering misuse of internet for purposes of terrorism and dismantling terrorist safe havens.
- The leaders also committed themselves for promoting a peaceful, prosperous and sustainable Bay of Bengal Region through meaningful cooperation and deeper integration.
- The leaders of all seven member states including Prime Minister Narendra Modi underscored the importance of robust institutional arrangements to effectively steer the process of regional cooperation under BIMSTEC.
- During the Summit, foreign ministers of BIMSTEC member countries signed a Memorandum of Understanding on the Establishment of BIMSTEC Grid Interconnection.
- The Declaration also stresses on ending poverty from the region by 2030 in line with the United Nations Sustainable Development Goals.

About BIMSTEC

- BIMSTEC stands for Bay of Bengal Initiative for Multi Sectoral Technical and Economic Cooperation. It is a regional grouping of seven countries, five countries for South Asia and two countries from South East Asia. It comprises of Bangladesh, Bhutan, India, Myanmar, Nepal, Thailand and Sri Lanka.
- BIMSTEC received a big boost during the BIMSTEC Outreach Summit and the Leader's Retreat that was held in Goa in 2016 when Indian Prime Minister had hosted BRICS Summit as well.

- Significant progress has been made within BIMSTEC as well since that particular summit in diverse areas of cooperation including in Security, Counter-terrorism, Transport and Connectivity, Tourism, Environment & Disaster Management, Energy and People to People contacts.
- BIMSTEC, as a regional grouping, the importance of it is growing both in economic and strategic terms. It is home to 1.6 billion people, so nearly 22 % of the world's population, it has a combined GDP of \$2.8 trillion.

Importance of BIMSTEC for India

- It brings together like minded countries with a common commitment to peace, prosperity and development of its people. With a shared heritage, shared values and shared ways of life it is a natural platform to build common future.
- India regard BIMSTEC as a gateway to the seas of the literal state as well as access to the landlocked member countries i.e. Bhutan and Nepal.
- For India BIMSTEC is a natural choice to fulfil our foreign policy priorities which is our Neighborhood First and Act East policy. Regional cooperation under BIMSTEC also extends to developments of the North Eastern states of India forming a bridge between South and South East Asia.
- It also links the unique ecology of the Himalayas to the Bay of Bengal.

Inauguration of Nepal Bharat Maitri Dharmashala at the Pashupatinath Temple Complex

- PM Modi and Nepal's Prime Minister KP Sharma Oli jointly inaugurated the Nepal Bharat Maitri Dharmashala at the Pashupatinath temple complex.
- The foundation stone to build the hospice in the Pashupatinath Temple premises was laid in 2001.
- It can host about 398 pilgrims at a time, which has 82 rooms in total.

SAARC Agri Cooperative Business Forum

Syllabus: Bilateral, regional and global groupings and agreements

In News

- The First South Asian Association for Regional Cooperation (SAARC) Agri Cooperative Business Forum was held in Kathmandu, Nepal.
- The theme of three-day Forum was the '**Organizing and Strengthening Family Farmers' Cooperatives to attain the Sustainable-Development-Goals-1 and 2 in South Asia**'.
- It is being co-organized by the Food and Agriculture Organization of the United Nations and Asian Farmers' Association with the support from the International Fund for Agricultural Development.
- The forum aims to share and learn from experiences of various organizations (from government, FOs and international development partners) in organizing and strengthening family farmers' agricultural cooperatives towards promoting sustainable incomes, livelihoods and rural development.

- The sharing will have a gender and youth focus, as most presentations will describe how the initiatives helped and benefited women and young farmers as well.

Asia-Pacific Institute of Broadcasting Development

Syllabus: Bilateral, regional and global groupings and agreements

In News

- The Asia-Pacific Institute of Broadcasting Development (AIBD) has elected Fayyaz Sheheryar, Director-General of All India Radio, as its new President.
- This is the first time India has been elected for the position of president of AIBD. India's presidency is for two years and will help it in leveraging itself as the broadcasting and media hub in Asia Pacific region.
- India got the presidency of the organisation, servicing countries of the UN Economic and Social Commission for Asia and the Pacific (UN-ESCAP) in the field of electronic media development by defeating Iran in the election that took place in Sri Lanka
- AIBD was established in 1977 under the auspices of UNESCO. It is hosted by Malaysia and its secretariat is located in Kuala Lumpur.
- It is mandated to achieve a vibrant and cohesive electronic media environment in the Asia-Pacific region through policy and resource development. The Asia-Pacific Broadcasting Union (ABU) is a founding organization of the institute and is a non-voting member of the general conference.
- The International Telecommunication Union (ITU), the United Nations Development Programme (UNDP), and the United Nations Educational, Scientific and Cultural Organisation (UNESCO) are founding organisations of the Institute and they are non-voting members of the General Conference.
- AIBD currently has 26 member countries, represented by 34 organisations and 67 affiliate member organizations with a total membership of 101 representing 48 countries and regions and over 50 partners.

About ESCAP

- The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) is the regional development arm of the United Nations for the Asia-Pacific region.
- Made up of 53 Member States and 9 Associate Members, with a geographical scope that stretches from Turkey in the west to the Pacific island nation of Kiribati in the east, and from the Russian Federation in the north to New Zealand in the south, the region is home to 4.1 billion people, or two thirds of the world's population.
- Established in 1947 with its headquarters in Bangkok, Thailand, ESCAP works to overcome some of the region's greatest challenges by providing results oriented projects, technical assistance and capacity building to member States in the following areas:
 - Macroeconomic Policy, Poverty Reduction and Financing for Development

- Trade, Investment and Innovation
- Transport
- Environment and Development
- Information and Communications Technology and Disaster Risk Reduction
- Social Development
- Statistics
- Subregional activities for development
- Energy

G20 Digital Economy Ministerial Meeting

Syllabus: Bilateral, regional and global groupings and agreements

In News

- G20 Digital Economy Ministerial Meeting was held in Salta, in the north-west of Argentina from 23 to 24 August 2018.
- The theme of this meeting was '**Building consensus for fair and sustainable development**'.

Key Highlights

- The joint declaration issued after the G20 Digital Economy Ministerial Meeting in Salta includes proposals to reduce the digital gender divide, transform the government, measure the digital economy and accelerate digital infrastructure.
- The declaration document acknowledges that digitalization is a powerful enabler of inclusive economic growth. It encourages G20 countries to better understand new business models to accelerate the digital economy in an inclusive, transparent and competitive manner.
- It also lists requirements for a thriving digital economy. These include an effective and high-quality infrastructure system, an environment that supports innovation and enabling legal frameworks, and promoting the free flow of information, knowledge and ideas.
- The recommendations in the document seek to help reduce the digital gender divide, accelerate digital infrastructure, transform the government and measure the new economy.
- In terms of infrastructure, the document alludes to "the G20 common goal of promoting universal and affordable access to the internet by all people by 2025" and describes universal connectivity as "a powerful enabler of inclusive growth and sustainable development."
- The document also addresses emerging digital technologies and the challenge of capturing the benefits of digitalization to improve productivity.
- It also highlights "the importance of supporting entrepreneurs and MSMEs."

About G-20

- The Group of Twenty (G20) is a leading forum of the world's major economies that seeks to

develop global policies to address today's most pressing challenges.

- The G20 is made up of 19 countries and the European Union. The 19 countries are Argentina, Australia, Brazil, Canada, China, Germany, France, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom and the United States.
- The G20 was born out of a meeting of G7 finance ministers and central bank governors in 1999 who saw a need for a more inclusive body with broader representation to have a stronger impact on addressing the world's financial challenges.
- In 2008, amidst the global financial crisis, the world saw a need for new consensus-building at the highest political level. Since then, the G20 summits have been attended by heads of state or government, and the G20 was instrumental in stabilizing the world economy.
- Since then, its agenda has expanded to include additional issues affecting financial markets, trade, and development.
- Collectively, G20 members represent all inhabited continents, 85 percent of global economic output, two-thirds of the world's population, and 75 percent of international trade.

Indian Ocean Conference

Syllabus: Bilateral, regional and global groupings and agreements

In News

- The third edition of Indian Ocean Conference was held at Hanoi, the capital of Vietnam.
- It was inaugurated by External Affairs Minister Sushma Swaraj and her Vietnamese counterpart Pham Binh Min Deputy Prime Minister and Minister of Foreign Affairs of Vietnam.
- The theme of the two- day conference was '**Building Regional Architectures**', particularly with regards to trade and commerce, security and governance.
- The conference emphasised on better cooperation, strategic collaboration and governance architectures.
- This conference also served as a platform to the countries to come closer and exchange better views on the economic and strategic importance of the region and neighbourhood.

About The Conference

- The Indian Ocean Conference initiated by India Foundation along with its partners from Singapore, Sri Lanka and Bangladesh is an annual effort to bring together Heads of States/Governments, Ministers, Thought Leaders, scholars, diplomats, bureaucrats and practitioners from across the region.
- Two successful editions of the Conference have been hosted so far in 2016 and 2017 in Singapore and Sri Lanka respectively. Both the Conferences were supported by the Ministry of External Affairs of India and had participation from over 35 countries with a global media coverage.

- The third edition of the Conference was hosted by India Foundation in association with the Diplomatic Academy of Vietnam, S Rajaratnam School of International Studies and Bangladesh Institute of International and Strategic Studies on 27-28 August 2018 in Hanoi, Vietnam.

World Congress of Philosophy

Syllabus: Bilateral, regional and global groupings and agreements

In News

- The World Congress of Philosophy is organized every five years by the International Federation of Philosophical Societies (FISP) in collaboration with one of its member societies. It was first organized in 1900 in Paris, France...
- The 24th World Congress was held in Beijing, China, from August 13 to August 20, 2018.
- The complementary aims of the 2018 Congress include an emphasis on exploring dimensions of the human and inquiring into the challenges facing humanity.
- It also aims to:
 - Globalize philosophical investigations to encompass the diverse forms of philosophizing by past and present thinkers across cultures, with special attention to critical reflections on philosophy itself and the tasks and functions of philosophy in the contemporary world.
 - Open the philosophical area to enable philosophers to address emerging global issues through fruitful interactions with other disciplines in the humanities, social sciences, and natural sciences, with other activities in economic, social, political, and religious spheres, as well as with diverse cultures and traditions.
 - Encourage philosophical reflections to become public discourses on recurrent human concerns, such as ecology, justice, and peace.

Economic Growth and Development

New GST Appellate Tribunal

Syllabus: Indian Economy and Issues relating to mobilization of resources.

In News

- The GST Council has approved creation of the tribunal with a national bench in Delhi and three regional benches in Chennai, Kolkata and Mumbai.
- A **Goods and Services Tax Appellate Tribunal (GSTAT)** will come into effect soon, providing a higher judicial forum for businesses to redress disputes under the new tax framework. The tribunal is the second level of appeal where pleas can be filed against orders from appellate or revisional authorities. The new body replaces the **Central Excise and Services Tax Appellate Tribunal**.

Other Provisions Regarding Tribunal

- **Composition:** The council also approved draft rules for the appointment of the tribunal's president and members, and conditions of service. The president of the tribunal must have served as a judge of the Supreme Court or a high court for at least five years.

Benefits

- **Mechanism for disposal of case:** The Constitution of the second level of appeal will put in place a mechanism for disposal of appeals arising out of the first-level appellate orders.
- **Bring consistency on issues:** The Constitution of a national bench of the GST Appellate Tribunal at four locations in India can go a long way in bringing certainty to tax positions and it would save dealers from different interpretations being adopted by state advance ruling authorities.
- **Set legal precedent:** So long as the decisions of all four appellate tribunals are consistent, both the assesses and the tax officials would benefit as the rulings would serve as legal precedents on issues under GST laws.

UPI 2.0

Syllabus: Indian Economy and Issues relating to mobilization of resources.

In News

- **Introduction:** The National Payments Corporation of India (NPCI) launched the second version of UPI i.e. the UPI 2.0. To start with, **11 banks** have partnered to offer the second version and five new features have been introduced in the second version of UPI.
- **One-time mandate:** This feature allows the user to preauthorize a payment and initiate a debit later. It has to be digitally signed and the information is stored at the payer's bank and with his/her UPI app-providing bank. But, this feature is allowed only for a P2M (person-to-merchant) transaction and not for P2P (person-to-person) transaction.

- **Linking the OD account:** UPI 2.0 now allows users to link their overdraft (OD) account in addition to the savings and current accounts that were allowed in the first version. UPI will act as a digital channel to access the OD account.
- **Invoice in inbox:** This feature gives merchants a provision to share the invoice with their customers before the actual payment is made. The customer can then use the link to verify the details of the invoice.
- **Signed intent and quick response (QR) code:** These will be additional security features that have been added in version two of the UPI. This will allow the customer to verify the payee details before making the transaction.
- **Transaction limit:** Finally, the per transaction limit has been doubled from **Rs. 1 lakh to Rs. 2 lakh** in UPI 2.0.

Inter Creditor Agreement

Syllabus: Indian Economy and Issues relating to mobilization of resources.

In News

A group of banks, including public sector, private sector and foreign banks, signed an inter-creditor agreement (ICA) to push for the speedy resolution of non-performing loans on their balance sheets.

Benefits

- **Provide flexibility:** The new inter-creditor agreement (ICA) gives lenders flexibility in taking a call on a viable resolution plan, instead of being herded into taking haircuts that can be substantial, in many cases. Thus the ICA, would keep the RBI away from mandating banks to file insolvency petitions using the bankruptcy code.
- **More leeway for the banks:** In projects that have inherent viability, banks should have the freedom to convert debt into equity and participate in the upside when the project does turn around. This can happen regardless of whether the banks retain a controlling stake or not.
- **Resolve stressed assets problem:** Earlier, the disagreement between joint lenders was the biggest problem in resolving stressed assets and the objections of a few lenders prevented a settlement between the majority lenders. But this will be solved through the ICA as lead lender can purchase the disagreeing lender’s shares in the NPA.
- **Promoters to remain in charge in some cases:** ICA also allows promoters to continue to be in charge in some cases. This makes sense as many businesses are stressed due to sudden changes in policy, rather than managerial deficiency.

What is ICA and how will it work?

The pact: ICA is an agreement among banks that have dues from a borrower in stress. The pact mandates the lead bank to formulate a resolution plan that will be executed in a time-bound manner

Applicability: All corporate loans above ₹50 crore

Binding condition: If 66%, or two-third, of the lenders in terms of aggregate exposure approve, then the pact is binding on all the lenders

Exit option: Dissenting lenders will have an exit route, either selling their exposure at a discount or buying exposure of the other lenders at a premium

Who is in? 24 banks, including SBI, Bank of India and Corporation Bank have already signed up. A majority of the lenders are expected to follow suit by the end of the week. Some NBFCs may also come on board



Target date: The framework is expected to be operational by the end of this month

Final Analysis

- Thus, the main benefit of the ICA is the flexibility banks acquire to resolve individual bad loans taking into account their specificities, instead of being straitjacketed into resolution under the Insolvency and Bankruptcy Code and accepting huge haircuts.
- Meanwhile, the biggest obstacle to bad loan resolution is the absence of buyers who can purchase stressed assets from banks, and the unwillingness of banks to sell their loans at a deep discount to their face value. Unless the government can solve this problem, the bad loan problem is likely to remain unresolved for some time to come.
- Further, for the scheme to work, bankers need protection from arbitrary arrests and criminalization of motives.

(For details regarding ICA refer July 2018 Economics current affairs material- Project Sashakt)

Need For Review Of Deposit Insurance Cover

Syllabus: Indian Economy and Issues relating to mobilization of resources and growth.

Introduction

- In India, deposit insurance covers **all commercial banks, local area banks, regional rural banks and co-operative banks**. If a bank goes belly up, then the Deposit Insurance and Credit Guarantee Corporation (DICGC) pays back the insured amount to the depositor. But the insurance limit is restricted to just **Rs. 1 lakh per depositor per bank**. Moreover, the premium is borne by banks and not the depositors.
- Set up in the early 1960s in the aftermath of the collapse of two banks, the DICGC, which guarantees repayment of bank deposits up to Rs. 1 lakh in case a bank is liquidated has not reviewed the amount under guarantee **since 1993**.

Need For Review

- ***Poor health of banks:*** This anomaly (maximum deposited amount insured i.e. currently Rs. 1 Lakh) must be addressed especially at a time when several state-run public sector banks have been roiled by a series of frauds and high levels of bad loans.
- ***To create public faith:*** Any measure that helps prevent further erosion of public faith in the beleaguered banking system would undoubtedly be very welcome. Moreover **less than a third** of bank deposits in value terms are insured by the DICGC.
- ***Too low compared to the International standards:*** Indonesia has a deposit-insurance cover of \$1,47,000, Brazil \$76,700, and Malaysia \$55,700. Mexico too has insurance coverage of over \$100,000. Canada, Switzerland and France provide cover upwards of \$70,000 per depositor. In the US, the Federal Deposit Insurance Corporation offers an insurance coverage of \$250,000. Most of these countries cover 60-70 per cent of total deposits. While, according to the 2017 annual survey by the International Association of Deposit Insurers (IADI), in India, the deposit insurance is **just \$1,543**.

Why The Deposit Insurance Amount Not Reviewed Till Now

- **Perception of cross subsidization:** The answer may lie in the fact that in India beneficiaries of the deposit insurance system up until now have mainly been urban cooperative banks. The last claim settled in respect of a commercial bank was way back in 2002. Hence, raising deposit cover, which will imply stronger banks coughing up more premium, mostly for the benefit of weaker banks has created a perception of cross-subsidization in the operation of deposit insurance.

Final Analysis

- To counter the above issue, a committee headed by **Jasbir Singh** in 2015 made recommendations for the introduction of risk-based premium as against a flat based one for the banks. It is time the RBI pushed forth some of these changes to strengthen our deposit insurance system.
- Thus, given the deteriorating state of affairs at public sector banks and weak governance norms, strengthening our deposit insurance systems and legal framework for bank resolution cannot be put on the back burner any longer.

Banks and NBFC Can Jointly Originate Priority Sector Loans

Syllabus: Indian Economy and Issues relating to mobilization of resources and growth.

In News

- **Introduction:** The Central Bank is set to allow banks and non-banking finance companies (NBFCs) to jointly originate priority sector loans. Thus, allowing them to take advantage of each other's strengths and push credit to this sector. So far, banks that could not meet this target used to buy securities from NBFCs. RBI, which has always wanted banks to directly give loans to this sector, is now promoting an alternative way of lending.
- **Co-origination agreement meaning:** The co-origination arrangement entail joint contribution of credit by both lenders at the facility level. It involves sharing of risks and rewards between banks and NBFCs for ensuring appropriate alignment of respective business objectives, as per their mutual agreement.
- **Priority sector lending:** Priority sector is defined by loans to agriculture, micro and small enterprises (MSME), housing, education loans and loans to weaker sections of society. Banks have to compulsorily lend 40% of their net bank credit to this sector. Total priority sector loans stood at **Rs. 24.97 trillion**, according to the latest RBI statistics.
- **Benefits:** Bankers believe that the new model could work better because it will reduce the risk for banks and bring down the cost of funds for NBFCs. Moreover, for banks it means a wider network, which is very helpful in recovery of such small ticket loans.

NEW STRATEGY

■ Banks and certain types of NBFCs to jointly provide priority sector loans



■ Joint credit will ensure better sharing of risks and rewards

■ Interest rate in priority sector should also be lower

Startup India's Academia Alliance Programme

Syllabus: Indian Economy and Issues relating to employment.

In News

- The Ministry of Commerce and Industry has announced the Startup Academia Alliance programme, to fulfill the Government's mission to **promote the spirit of entrepreneurship** in the country.
- It is a unique mentorship opportunity between academic scholars and startups working in similar domains.
- The programme aims to reduce the gap between scientific research and its industrial applications in order to increase the efficacy of these technologies and to widen their impact.
- By creating a bridge between academia and industry, the Alliance strives to implement the third pillar on which the Startup India Action Plan is based - Industry Academia Partnerships and Incubation.
- The first phase of Startup Academia Alliance was kickstarted through partnering with Regional Centre for Biotechnology, The Energy and Resources Institute (TERI), Council on Energy, Environment and Water, and TERI School of Advanced Studies.
- Renowned scholars from these institutes, in fields such as renewable energy, biotechnology, healthcare and life sciences were taken on board to provide mentorship and guidance to startups working in relevant arenas.
- Emphasis is placed on finding startups that employ innovative solutions to pressing problems in diverse areas.

Startup India

- Startup India is an initiative of the government organized by The Department of Industrial Policy and Promotion (DIPP).
- The action plan of this initiative is based on the following three pillars:
 - Simplification and Handholding.
 - Funding Support and Incentives.
 - Industry-Academia Partnership and Incubation.
- An additional area of focus is to discard restrictive state government policies within this domain, such as licence raj, land permissions, foreign investment proposals, and environmental clearances.
- As defined by DIPP, a **Startup is an entity, incorporated or registered in India** -
 - upto a period of seven years from the date of incorporation/registration or upto ten years in case of Startups in Biotechnology sector.
 - as a private limited company or registered as a partnership firm or a limited liability partnership.
 - with an annual turnover not exceeding Rs. 25 crore for any of the financial years since incorporation/registration.
 - working towards innovation, development or improvement of products or processes or services or if it is a scalable business model with a high potential of employment generation or wealth creation.

- An entity formed by splitting up or reconstruction of an existing business shall not be considered a 'Startup'.
- **An entity shall cease to be a Startup -**
 - on completion of seven years from the date of its incorporation/registration, ten years in case of Startups in Biotechnology sector or
 - if its turnover for any previous year exceeds Rs. 25 crore.

ILO's India Wage Report

Syllabus: Indian Economy and Issues relating to employment.

In News

According to the India Wage Report published by the International Labor Organization (ILO), despite real wage growth in India, inequality, informality and gender wage gap persist.

Key Highlights Of The Report

- India's economic growth has resulted in fall in poverty and moderate change in employment patterns with a growing proportion of workers in services and industry.
- However, the Indian labor market **still faces high level of informality**. More than 51 percent of the people employed in India (as per 2011-12 data) were self-employed and as many as 62 percent of wage earners are employed as casual workers.
- **Average daily wages** almost doubled between 1993–94 and 2011–12, increasing more rapidly for casual than for regular workers and for women than for men. But low pay remains pervasive. In 2011–12, the average wage in India was about 247 rupees (INR) per day.
- Although overall **wage inequality** in India has declined since 2004–05, wage inequality remains very high with the Gini coefficient for wages being 0.49.
 - *Regional disparities* in average wages have actually increased over time, with wages rising more rapidly in high-wage States than in low-wage ones.
 - The *gender wage gap*, despite having declined from 48 percent in 1993-94 to 34 percent in 2011-12, is still steep, as per international standards.
- Key challenge is that the minimum wage system in India is quite complex -
 - **National minimum wage floor**, which was introduced in the 1990s, is not legally binding.
 - The minimum wages are **set by state governments for employees in selected 'scheduled' employment** and this has led to 1709 different rates across the country. As the coverage is not complete these rates are applicable for an estimated of 66 % of wage workers.

Recommendations For Improving The Current Minimum Wage System

- Extend legal coverage to all workers in an employment relationship,
- Consolidate and Simplify minimum wage structures,

- Take stronger measures for effective application of minimum wage law,
- Collect statistical data on regular basis.

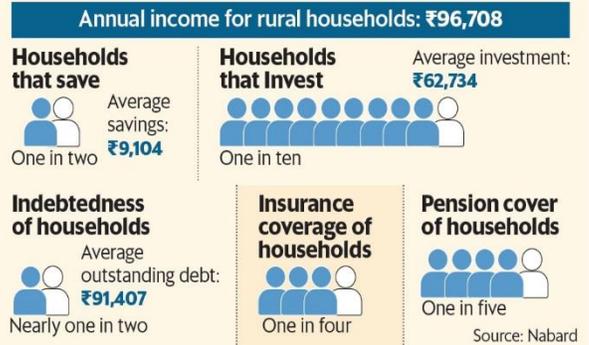
Financial Inclusion Survey By NABARD

Syllabus: Inclusive growth and issues arising from it.

In News

- **Average monthly rural income:** According to the National Bank for Agriculture & Rural Development's (NABARD) **All India Rural Financial Inclusion Survey 2016-17 survey**, whose reference period is 2015-16, the average net monthly income of Indian rural households after deducting expenses incurred in the course of economic activity was **Rs. 8059**.

Financial Inclusion report card



- **Share of income from agriculture:** Even for so called agricultural households, just over 43 per cent of their average income comes from cultivation of crops and rearing of animals. The balance 57 per cent income in their case, too, was from non-agricultural sources. The survey reinforces a trend that has gathered momentum since the start of this century of an increasingly **less Krishi in Bharat**. While agriculture may, by definition, be largely rural the converse, though, isn't true.
- **The agricultural rural household:** The NABARD survey estimates the total number of rural households in India for 2016-17 at **21.17 crore**. The definition of rural is a broad one, covering revenue villages and semi-urban centres with a population of less than 50000. Out of the 21.17 crore rural households, **10.07 crore**, or under 48% are agricultural *i.e.* those with at least one member self-employed in farming and reporting annual value of produce at more than Rs 5000. The remaining 11.10 crore households or 52 per cent are non-agricultural.
- **Outstanding debt:** More than half the agricultural households in the country have outstanding debt, and their average outstanding debt is almost as high as the average annual income of all agricultural households. The average debt of an indebted agricultural household stood at Rs. 104602 in comparison to Rs. 76731 for indebted non-agricultural households. NABARD found that **52.5%** of the agricultural households had an outstanding loan on the date of the survey, and thus were considered indebted. For non-agricultural households in rural India that figure was 10 percentage points lower, at only **42.8%**.

Final Analysis

- These findings confirm a trend that has been obvious since the start of this century *i.e.* Rural India can no longer be viewed solely through the prism of farming.
- Even more misplaced is the impression of a widening Bharat-India divide conveyed by agriculture contributing only about 17 per cent of the country's GDP at current prices, despite two-thirds of its

population living in rural areas. If just 47.6 per cent of rural households are agricultural, as per the NABARD survey, and 43.1 per cent of even their incomes are from farms, the gap isn't as yawning as made out.

- The crisis in rural areas today is actually one of too much agriculture *i.e.* in terms of both relative output and employment. What is needed is more manufacturing units, including those that process and add value to agricultural produce.
- China's industrialization in the late-Seventies and Eighties was driven by Township and Village Enterprises. There is ample scope to replicate that experience in India and extend it to services such as business process outsourcing or even software development. We do have stories of success in the rural-based manufacturing clusters of Tamil Nadu and Gujarat.
- With 24x7 electricity, all-weather roads, broadband connectivity and investment in education, which is what the government should focus on and this will result in unleashing of rural entrepreneurship. That will help generate better quality non-farm employment than is now available in brick kilns, stone quarries, farm implement repair, construction and other such informal sector enterprises.

Government To Bring In A New Industrial Policy

Syllabus: Changes in industrial policy & their effects on industrial growth.

In News

- The government will shortly unveil a new industrial policy that aims to speed up regulatory reforms to make businesses more competitive and create more jobs.
- The policy is being given final touches by the Department of Industrial Policy and Promotion (DIPP), will be presented to Cabinet for approval.
- The comprehensive industrial policy is envisaged as a follow up to initiatives such as **Make in India and Startup India**, aimed at boosting domestic manufacturing and entrepreneurship. Such a policy is important as manufacturing had become more complex.
- **The Industries (Development & Regulation) Act** provides the necessary framework for implementing the industrial policy. Its last big revamp was in 1991 when the government liberalized the policy regime, dismantling the licence raj.
- India's industrial sector has a **29% share in GDP** at current prices, well below **44% for China**.

Time for Reboot
Govt starts work on new industrial policy, consultation paper floated

OBJECTIVES:	OUTCOMES:
<ul style="list-style-type: none"> • Global linkages • Competitiveness • Growing Workforce • Sustainability • Tech adoption and innovation 	<ul style="list-style-type: none"> • Leader in green energy, manufacturing and tech • Smart manufacturing • Cut compliance cost, transaction time • Attract \$100-billion FDI annually

JOBS WORRY:
Projected upward trends in automation leading to job losses

Proposal Under The New Policy

- **Three focus areas:** The proposed policy will be focused on three pillars *i.e.* competitiveness, sustainability and inclusion.

- **Overarching body:** The proposals include establishing an overarching body with representation by the Centre and the states similar to the Goods and Services Tax (GST) Council to enable swift decisions on key changes such as the revamp of labour laws, taxation provisions and land leasing. The proposed Centre-state body will also ensure swifter action at the state government level. It will be chaired by the **Union Commerce and Industry Minister** with State Industry ministers as members.
- **FDI:** The policy aims at creating global brands and raising FDI inflows to **\$100 billion annually** (from \$60 billion levels at present).
- **DBT for electricity:** The policy proposes a direct benefit transfer (DBT) for electricity for households and agriculture, which will result in lower tariffs for industry. Power tariffs for industry are high because these subsidies electricity supplies to homes and farms. Bringing them down is part of agenda in the policy to lower the cost of doing business, including cost of capital. E.g., high power costs make Aluminium made in the country uncompetitive in the global marketplace.
- **Peer to peer Lending:** It also moots a platform for peer to peer lending and cash flow lending to ensure availability of credit.
- **Encouraging R&D:** The policy will also seek to create a framework to encourage research and development in the country by establishing an interface between academic institutions and businesses. To encourage innovation, it is likely to suggest a revamp of the Intellectual property rights regime so that innovators have a greater say.

Way forward

- A new system of incentives is needed. Strategic industries should be protected (the Centre needs to identify them) on the condition that R&D spends increase.
- Taking a leaf out of China, the government should create clusters so that overheads are reduced. Logistics needs a major boost. The Centre could direct resources away from export subsidies into such priorities.
- A balance between returns on finance and on physical investment needs to be maintained.

MSME Development (Amendment) Bill, 2018

Syllabus: Changes in industrial policy & their effects on industrial growth.

In News

Micro, small and medium enterprises (MSMEs) will soon be defined based on their annual turnover, if a new Bill introduced in the Lok Sabha is cleared. At present, it is decided based on the investment made in plant and machinery/equipment.

Provisions of the Amendment Bill

- **Definition based on turnover:** Any business with a turnover of up to **Rs. 5 crore** will be considered a micro enterprise. The other slabs are **Rs. 5-75 crore** for small enterprise and **Rs. 75-250 crore**

TURNOVER DEFINES MSMEs NOW

The government has moved away from an investment-based definition of MSMEs to a revenue-centric definition, which will be verified by the GST Network

	<p>₹ 5 Crore Micro Enterprise Companies with annual revenue of less than or equal to this amount are classified as micro enterprises</p>
	<p>₹ 5 - 75 Crore Small Enterprise Companies with turnover above Rs 5 crore but under Rs 75 crore are the new small enterprises</p>
	<p>₹ 75 - 250 Crore Medium Enterprise Companies with turnover of more than Rs 75 crore and up to Rs 250 crore are medium enterprises now</p>

www.smefutures.com 

for medium enterprise. At present, there are two sets of definitions, depending on whether the units produce goods or services. Under the goods category, the slabs are up to Rs. 25 lakh for micro, Rs. 25 lakh to Rs. 5 crore for small and Rs. 5-10 crore for medium. In the case of services, the slabs are: up to Rs.10 lakh, Rs. 10 lakh to RS. 2 crore and Rs. 2-5 crore.

Purpose Of The Change In Criteria

- **To align with the current needs:** It was felt necessary to change the criteria for the classification in order to align it with the needs of current times and changing business ecosystem.
- **Added cost due to physical verification:** The earlier criterion of investment entailed physical verification, bringing with it transaction costs.
- **GST information use:** On the other hand, if the annual turnover is the criterion, it can be directly verified from the GST Network, thus putting an end to physical inspections and the Inspector Raj necessitated by the investment based regime.
- **Incentivised MSME to remain small:** The earlier criteria also incentivized the promoters to keep the investment size small to retain the MSME tag. But now the turnover criteria will allow a unit to graduate from its MSME status on reaching a fair size and discourage the proliferation of inefficient units created mainly with an eye to tax sops.
- **Hindered modernization:** The new definition will result in fairer comparisons between older and newer ventures in a sector for utilizing MSME sops. Given steady escalation in project costs, comparing investments in plant and machinery over time illogically puts newer units at a disadvantage over older ones, actively militating against modernization efforts in industry.
- **More transparency:** Overall, the turnover-based classification will promote the ease of doing business and will put in place a non-discretionary, transparent and objective classification system.
- **Turnover criteria fairer to technology industry:** The turnover-based sops may be friendlier to technology intensive sectors such as engineering; auto components or pharmaceuticals where substantial capital investments are needed to ensure even minimal scale.

Final Analysis

- Some industry bodies have expressed the concern that under the new dispensation, medium enterprises with Rs. 250 crore turnover may crowd out smaller peers in cornering the sops. But a higher turnover limit is welcome because one of the primary problems plaguing Indian industry is the mushrooming of tiny units that stand little chance against competition.
- For the Make in India initiative to take wing and for Indian firms to stand a fighting chance in the export market, the policy regime for MSMEs needs to actively push them to scale up over time, rather than shower them with sops to remain small-scale. In fact, the Centre should mull a sunset clause on MSME benefits to encourage these units to climb up the value chain.

Draft E-Commerce Policy

Syllabus: Changes in industrial policy & their effects on industrial growth.

In News

- The gov't's draft ecommerce policy makes a strong case for championing 'Indian' online enterprise and may have major implications for foreign-owned ecommerce majors operating in India.
- The draft policy includes multiple aspects in the legislation i.e. from consumer protection and grievance redressal, to ownership, FDI, local storage of data, protecting micro, small and medium enterprises and mergers and acquisitions.
- Indian e-commerce market is estimated to be worth around **\$25 billion** and is projected to touch **\$200 billion** in a decade. Moreover, the e-commerce which accounts for less than **4% of the \$500 billion** India retail market, but is growing about 4x every year compared to brick-and-mortar selling.
- The commerce department has asserted that India requires a domestic E-commerce Policy, as there was pressure from developed countries on it to take part in WTO negotiations on online trade and also to counter China's domination in the digital space.
- Currently, India allows 100% foreign direct investment (FDI) in the marketplace model but prohibits foreign investment in the inventory-based model. Marketplace operators cannot hold inventory and sell products on their platform, they can only facilitate the process for other vendors. Also, an ecommerce entity cannot allow more than **25% of the sales** transacted on its marketplace from one vendor or their group companies.

Provisions of Draft Policy

- **Not to influence price:** Key recommendations include barring group companies of ecommerce players from directly or indirectly influencing sale prices. This may mean restrictions on retail strategies of ecommerce majors with subsidiaries.
- **Sunset clause for discounting:** The draft policy also suggests a sunset clause for deep discounting, suggesting a maximum duration be set for differential pricing strategies. Competition Commission of India (CCI) and the department of industrial policy and promotion (DIPP) have been asked to flesh out this aspect. It also suggested that discount curbs will not be limited only to the marketplace, such as Amazon and Flipkart, but would extend to group companies. The government suspects that many of the sellers on these platforms have indirect shareholding from the marketplace operators. Thus, a key element of the draft policy that will affect consumers is the plan to check discounts, something that offline retail lobbies have been pitching for.
- **Bulk purchases affecting prices prohibited:** The draft mentions that bulk purchases of branded goods like mobile phones, white goods, fashion items by related party sellers, which lead to price distortions in a marketplace will be prohibited.
- **Check on differential pricing:** Further, the deep discounts would include checks on differential pricing, which will restrict brands from offering two sets of prices for the same product sold offline and online.
- **Indian E-commerce companies allowed inventory:** The policy also suggests Indian owned and Indian-controlled online marketplaces be allowed to hold inventory as long as products are 100% domestically produced. This relaxation on marketplace ecommerce firms is not available for entities controlled by foreign investment. Thus, the draft ecommerce policy include 49% foreign direct investment (FDI) in B2C (business to consumer) e-commerce, but the control and management must rest with resident Indians and such entities would be allowed to hold their own inventory of

locally produced goods, a concession that is not applicable for majority foreign-funded companies and they must stick to marketplace model of lending their platforms to other retailers and vendors to conduct business.

- **Differential voting rights:** For Indian founders with minority stakes, the draft suggests there should be differential voting rights giving founders more control. It defines an Indian ecommerce firm as that where foreign investment doesn't exceed 49% or where the founder/promoter is a resident Indian and Indian management controls the platform company. Thus, as a part of pro swadeshi policy have prompted the government task force to suggest amendments to the Companies Act so that founders retain control over their companies, despite having small stakes.
- **Separate wing in ED for Press Note 3 grievance:** The draft suggests a separate wing be set up in the Enforcement Directorate to handle grievances related to Press Note 3, which details guidelines for foreign investment in ecommerce.
- **Greater Scrutiny of M&As:** Greater regulatory scrutiny has been recommended for mergers and acquisitions that may distort competition and a relook has been suggested on what constitutes entry barriers and anti-competitive practices. The CCI has been asked to undertake such exercises. This assumes significance in the light of the recent acquisition of Flipkart by US retail major Walmart.
- **Single legislation and regulator:** The draft policy also proposes a single legislation to address all aspects of digital economy and a single regulator for issues related to FDI implementation and consumer protection. It says legal fragmentation seen across various laws governing the ecommerce sector should be corrected.

Snapshot



Data Localisation Measures

- Companies such as Amazon, Facebook and Google that generate user data through ecommerce platforms, social media and search engines have to store data exclusively in India
- Government to have access to data stored in India for national security and public policy subject to privacy and consent rules
- Government to incentivise domestic data storage in India, provide data infrastructure, make domestic data storage economically attractive

India-First Measures

Limited inventory-based B2C model for online sale of locally produced goods to be allowed, as long as

- 'Made in India' products are sold on the platform
- The founder or promoter is a resident Indian
- The company is controlled by Indian management and foreign equity does not exceed 49%

Measures to Support MSMEs

There are several recommendations meant to boost MSMEs, such as

- Establishing an ecommerce retail platform (in public-private partnership mode) exclusively for MSME vendors and suppliers
- Implementing pilot initiatives for online sale of products from small industry clusters such as Moradabad, Ludhiana, Aurangabad and Meerut
- Reexamining the TCS provisions in GST which impose additional burden on SMEs

Measures on Press Note 3

- Government to create a separate wing in the Directorate of Enforcement to handle grievances related to implementation of Press Note 3
- The curbs on not able to influence prices to be extended to group companies of the ecommerce marketplace. This is likely to have an impact on companies such as Amazon since it holds a stake in some of its seller entities
- Deep discounts to be phased out as government proposes to introduce a sunset clause for differential pricing strategies (for example, deep discounts). This will impact customers of platforms such as Flipkart and Amazon

How will the Sector be Regulated

A single legislation will address all aspects of the ecommerce industry

A single regulator would be set up to consider issues such as FDI implementation issues, consumer protection issues among others

More scrutiny of mergers and acquisitions that may 'distort competition'. Competition Commission of India will examine entry barriers and anti-competitive practices

This assumes significance in the light of the recent acquisition of Flipkart by US retail major Walmart



How will Payments be Monitored

- A centralised agency for KYC data to be set up reduce the KYC cost for individual operators and burden on the consumer

- A Social Credit Database to be set up through PPP to facilitate digital lending

- **Data localization:** On data localization, the draft says only personal data or community data collected by Internet of things devices in public space will need to be stored in India. Other data, which have no personal or community implications can be stored anywhere. However, the draft suggests a **two-year sunset** period before making data localization mandatory.
- **For taxation purpose:** On taxation front, it has suggested fast tracking the use of the concept of **significant economic presence** as the basis for determining Permanent Establishment for the purposes allocating profits of multi-national enterprises between resident and source countries. Moreover, it has also favoured simplified GST procedures for ecommerce by allowing centralized registration instead of local registration and displaying requirement for each place of business.
- **Creation of consumer grievance authority:** The draft policy also proposes to create a **Central Consumer Protection Authority** to act as a nodal agency for intra-government coordination and to provide a forum for consumers to register unresolved complaints.
- **Promoting RuPay card:** Further, a special plan for promoting RuPay has been proposed, which mandates its listing (like Visa, Mastercard) as a payment option in e-commerce transactions, apart from allocation to increase its branding and changing its perception of being a poor man's card.

Benefits

- **Promotes Indian entrepreneur:** The draft policy will be good to promote Indian entrepreneurship and is thus, in the right direction. The same is done by the Chinese state in promoting Alibaba to challenge the global giants.
- **Promote Make in India:** In the long run, it helps the country and Make in India as millions of micro; medium and small enterprises (MSMEs) have a better chance to go online. As pricing will no longer be controlled by group companies.
- **Enable orderly growth of the sector:** This is an important step towards creating forward-looking, enabling regulation that will catalyze robust and orderly growth of the ecommerce sector in India.
- **Building a viable business plan:** The draft policy will also help large companies build a viable business rather than just depend on discounts.
- **Will ensure effective implementation of Press note 3:** There has been seen a large indirect violation of Press note 3 of DIPP, which restrict Ecommerce platform to maintain inventory based model and can't sell to consumer directly. But there have been various instances of its violation.

Challenges

- **E-commerce definition ambiguity:** There are many issues and ambiguity with the policy including the definition of ecommerce. There is no clarity on who is an ecommerce player now as almost every retailer uses technology and supports online buying and delivery.
- **Difficult to monitor inventory restriction:** Foreign direct investment restrictions on players who can hold their own inventory are sought to be lifted, but there must be a majority Indian partner and all products have to be made in India. This seems like a leaf out of India's retail FDI policy that has similar procurement diktats that are not easy to meet or monitor.

- **Dilution of actual implementation:** The draft policy effectively leaves the implementation of some of the key provisions to multiple departments and with several clauses, which experts say could dilute the impact.
- **Strict inventory model benefit only small entrepreneur:** The draft policy also allows for limited inventory based B2C model for domestically produced goods, but experts say the conditions are very strict and could only likely benefit very small entrepreneurs. As the provision in the draft policy states that this will be allowed only when 100% made-in-India products are sold through platforms whose founder or promoter would be a resident Indian or the platform company would be controlled by Indian management and foreign equity would not exceed 49 %.
- **Conflicting Clauses:** On one hand the draft policy proposes that foreign investors can own up to 49% in majority Indian owned and Indian controlled marketplaces that hold inventory and sell locally manufactured products directly to consumers. Whereas on the other hand the draft policy also states that the government will strengthen the enforcement of **Press Note 3** by creating a separate wing in the Enforcement Directorate to handle grievances related to implementation of the provisions of this note. This note allows up to 100% FDI in marketplaces but stipulates that foreign-funded online ecommerce portals cannot hold inventory and sell to consumers directly.
- **Pricing control may depress the sector:** The aim of ruling out deep discount may be to prevent large players from pricing out the competition through unfair practices, but taken too far such licensing and price controls can depress the sector. To give the government a say on who can offer how much discount and for how long, instead of letting consumer's exercise informed choices would be a regressive step for the economy.
- **Biasness:** The policy gives preference to local companies and puts up barriers for multinationals including Amazon and Walmart, which have lined up billions of dollars in investments for India. As the Amazon and Walmart who own much more than 49% in their Indian units, they will be barred from stocking inventory, while their rivals with 49% or less FDI will be able to sell directly to Indian consumers.
- **Regulatory intervention:** E-commerce companies are especially wary of the proposed e-commerce regulator because they feel it will intervene in decision-making, slowing down business operations. Thus resulting in a new kind of Licence Raj.
- **Multiple laws on data protection:** The suggestion on data localization has resulted into multiple such policies for data protection with different recommendations by IT Ministry, the Reserve Bank of India, under the draft ecommerce policy and by the Srikrishna committee. Thus has added to the confusion.
- **Rise in cost of compliance:** E-tailer costs are also likely to rise on account of proposed norms on storing and processing data locally.
- **Impact job creation:** The proposed e-commerce policy could drive away those planning online retail forays and the opportunity to create jobs and benefit consumers would be lost.

Way forward

The draft policy should be finalized after consultation with all the stakeholders. Moreover, the government would do well to focus its energies on improving the quality of education across the board,

enhancing ease of doing business, promoting financial markets, making the power sector financially viable and ensuring net neutrality.

Biodiesel In India

Syllabus: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

In News

- With its domestic crude oil output stagnating and the demand for oil continuing to rise at an ever-increasing pace, India has an opportunity to use substitutes of fossil fuels for both, economic and environmental benefits.
- Ethanol is one such substitute that can be produced from sugarcane and used for transport by blending it with petrol/gasoline.
- Another option is biodiesel, which can be produced from the oil-bearing seeds of certain plants and blended with diesel. In the West, biodiesel is produced mostly from field crops like rapeseed and from sunflower in Europe and from soyabean in the US.
- Malaysia utilizes palm oil while Nicaragua uses *Jatropha curcas* (The Physic Nut) for biodiesel production.
- India's first-ever environment friendly biofuel powered flight between Dehradun and Delhi was propelled by blend of oil from *jatropha* seeds and aviation turbine fuel. This plane had carried blend of 25% of bio jet fuel (derived from *jatropha* seeds) and 75% of aviation turbine fuel (ATF) in one of the two engines of plane, while other carried only ATF.
- This flight was technological demonstration that bio jet fuel can be used in flights. International standards permit a blend rate of up to 50% biofuel with ATF. The blend of bio jet fuel and ATF has potential to reduce fuel costs by 15-20%.

Significance

- Bio jet fuel is greenhouse gas (GHG) neutral, carbon neutral, reduces air pollution. Capping its blending with aviation turbine fuel will help to bring down import bill on crude oil. Moreover, commercialization of aviation biofuel promises large-scale employment avenues both in formal and informal sector.
- The use of bio jet fuel will help in reducing greenhouse gas (GHG) emissions by about 15% and sulfur oxides (SO_x) emissions by over 99%. It is expected to provide indigenous jet fuel supply security. Its usage also offers superior engine performance and reduced maintenance cost for the airline operators.

Jatropha

- *Jatropha* is drought-resistant perennial plant that can grow in marginal or poor soil. It grows relatively quickly and lives, produces seeds for 50 years. It is found to be growing in many parts of the country, especially in rugged terrain and can survive with minimum inputs and easy to propagate.

- It seeds has oil content of 37% which be combusted as fuel without being refined. It burns with clear smoke-free flame. It has been tested successfully as fuel for simple diesel engine. Its oil also acts as insecticide.
- Moreover, by-products of its seeds like press cake is good organic fertilizer. Jatropha also has medicinal properties and is used for diseases like cancer, piles, snakebite, paralysis, dropsy etc.

The Problem of Jatropha

- Availability of Jatropha seeds remains a major problem in increasing the production of biodiesel in India. Much has been done to initiate large-scale cultivation, increasing Jatropha yield and switching to substitutes. However, much of this has not yielded successful results.
- A major obstacle in implementing the biodiesel programme has been the difficulty in initiating large-scale cultivation of Jatropha. The higher gestation period of biodiesel crops (3–5 years for Jatropha) results in a longer payback period and creates additional problems for farmers where state support is not readily available.

Centre Moots Overseas Version Of UDAN

Syllabus: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

In News

- The Ministry of Civil Aviation has prepared a draft scheme document for **UDAN International** and invited comments from stakeholders.
- So far, Assam has proposed to offer Rs. 100 crore per year for flights to Kathmandu, Dhaka, Singapore, Bangkok, Kuala Lumpur and Yangon. Andhra Pradesh has also expressed its keenness to the Civil Aviation Ministry to encourage tourism.

Provisions Of The Draft Scheme

- **State subsidy:** State governments will be able to encourage tourism on preferred international air routes by offering subsidy to domestic airlines for a period of three years. Thus, the scheme is designed for State governments that are keen to promote air connectivity on international routes identified by them and for which they are willing to provide subsidy to airlines.
- **Method of grant of subsidy:** The airlines will bid on the percentage of flight capacity for which they require financial assistance, provided that the figure **doesn't exceed 60%** of the flight capacity. The entity that quotes the lowest amount will be awarded subsidy for a particular route. However, the government will grant financial aid only for the actual number of passenger seats that are unsold, even if the airline had sought subsidy for a higher percentage of seating capacity at the time of bidding.
- **No cap on fares:** An airline that is awarded a particular route will have exclusive rights to a subsidy on that route for a period of three years. The key difference between this scheme and the regional connectivity scheme (RCS) for domestic routes is that there is no capping of fares. Under RCS, fares are capped at **Rs. 2500 for one hour of flight** on a fixed wing aircraft in order to make air travel affordable, which was why the scheme was called **Ude Desh Ka Aam Nagrik (UDAN)**.

- **Overall benefits expected:** This will help improve overall connectivity and spur trade, tourism and economic growth in the country.

Criticism

- **Less return:** The economic returns from investing in better schooling, healthcare and sanitation would outweigh, by far, whatever gain is to be had by letting a few thousand more to fly abroad.
- **Divert domestic resources:** Subsidizing air travel to some of the most popular tourist destinations abroad would merely divert domestic economic activity, apart from enriching the already well-heeled.

Centre Proposes New Bidding Model For Greenfield Airports

Syllabus: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

Provisions Of New Bidding Model

- **Revenue sharing to fixed yield:** The Ministry of Civil Aviation has published a Draft model concession agreements for greenfield airports that moves away from a **revenue-share system to a fixed yield regime** based on the number of passengers the airport is expected to handle.
- **MBAY for per passenger:** The Maximum Blended Aeronautical Yield (MBAY) in terms of rupee per passenger would be determined by the concessioning authority at the beginning of the tender period. This fee has been fixed at Rs. 400 per passenger for the financial year 2018-2019. The bids would however differ for each airport in line with the projected traffic, financial returns and risk profile.
- **Quality assurance:** The tariff regulator **Airports Economic Regulatory Authority of India (AERA)** will formulate key performance indicators as part of the bid document and could be revised every five years. This would ensure quality of services by the concessionaire.

Benefits of the New Model

- **Affordability and predictability:** The proposed change to the bid parameters would help ensure affordability of airport services for passengers as well as predictability of revenue for the winning bidder.
- **Transparency:** The new model will be based on passengers entering the airport. Thus, this will be the most transparent method. And with new technology, the headcount is far more easier.
- **Reducing uncertainty:** For the investor community, the proposal is seen reducing regulatory uncertainty and disputes arising out of tariff determination and revenue sharing. For global airport operators to come and invest in India, there have been two broad concerns i.e. AERA fixes the aeronautical tariffs once in five years and this leads to a degree of regulatory uncertainty, which could be daunting for an investor, including a

New model to woo investors

India is giving a major policy push to attract investments in greenfield airport projects to make air travel more accessible and affordable. The proposed projects include airports at:

<ul style="list-style-type: none"> ▶ Jewar, Uttar Pradesh ▶ Bhogapuram, Andhra Pradesh ▶ Pune, Maharashtra 	<p>Greenfield projects already under way</p> <ul style="list-style-type: none"> ▶ Navi Mumbai ▶ Kannur
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<ul style="list-style-type: none"> ▶ A revenue sharing model is likely to be simpler and less prone to disputes over costs ▶ This model would be a departure from the current norm of developers sharing a part of the profit from the venture 	<ul style="list-style-type: none"> ▶ The move is likely to attract more investors and lenders to proposed projects
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▶ India is targeting **one billion** air passengers a year in 15-20 years

▶ Minister of state for civil aviation Jayant Sinha said the model would step up building of airport infrastructure and make air travel more accessible and affordable

foreign investor. The second challenge was from the concession granting authority. The biddable parameter so far, was revenue share. If this can be disputed then it becomes an item that is difficult to administer. Thus, linking concession fee to number of passengers, the disagreement around gross revenue and the risk of revenue leakage will be reduced.

- **Disincentivise higher capex and cost:** A shift away from determining airport tariffs on the basis of costs incurred by the airport developer is expected to disincentivise the company to incur excessive capex or operating expenses in order to seek higher aeronautical tariff.
- **Realizing government's aim:** The new concession agreement is aimed at realizing the government's dream of achieving one billion passenger trips a year. This necessitates massive investment in the sector and construction of more Greenfield airports.

Freight Corridor on East Coast

Syllabus: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

In News

- **Introduction:** The Indian Railways plans to invest Rs. 44000 crore to build a 1100-km greenfield freight corridor on the east coast connecting Kharagpur in West Bengal with Vijaywada in Andhra Pradesh. The corridor is expected to carry about 200 million tonnes of freight per annum.
- **Eastern and western DFC:** The construction work on the corridor will begin only after the DFCC delivers the 3300 km long eastern and western freight corridors. The two corridors, being constructed to connect the mainland with the ports on the western and the eastern coasts of the country are expected to be fully completed by 2020. The 1500 km long western freight corridor runs from Dadri near Delhi to Jawahar Lal Nehru Port Trust in Mumbai while the 1800 km eastern corridor is from Ludhiana in Punjab to Dankuni in West Bengal. Once open, the stretches on the western and the eastern corridors will significantly reduce the travel time between Delhi and Mumbai and Delhi and Howrah, the two most congested rail routes in the country. The construction of the western corridor is being fully funded by the Japanese International Cooperation Agency (JICA) and the eastern corridor is being partially funded by the World Bank.
- **Connecting producer & Consumers:** The corridor will connect mineral rich areas of the country to industries in the south.

Motor Vehicle Amendment Bill

Syllabus: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

In News

- The Motor Vehicles (Amendment) Bill has run into opposition in the Rajya Sabha because of its perceived shift of power from the States to the Centre. The issue is not one of legislative competence as the subject is in the Concurrent List.
- India saw 1.5 lakh deaths from road accidents, according to the 'Road Accidents in India, 2016' as report by the Ministry of Road Transport and Highways.

Provisions of The Bill

- Overall approach:** The Bill seeks to update the three decades old Motor Vehicles Act by hefty increases in penalties for traffic violations, rationalizing third party insurance, revamping norms for Internet enabled taxi aggregators, holding parents/guardians accountable for juvenile driver’s handiwork and instituting clear cut liability norms for automotive producers in the case of vehicle defects and for builders in the case of infrastructure flaws.
- Removal of intermediaries:** The Motor Vehicles (Amendment) Bill seeks to redress corruption of intermediaries by taking the process online. Tests for driving licences will be automated and learner’s licences will be issued online.
- Hefty fines:** The Bill proposes to raise the fine for various offences such as for rash driving from Rs. 1000 to Rs. 5000; driving without a licence will attract a minimum fine of Rs. 5000 against Rs. 500 now.
- Liability for grievous hurt and death:** The old Act provided Rs. 12000 for grievous injury and Rs. 25000 for death, while the amendment Bill provides Rs. 50000 for grievous injury and Rs. 2 lakh or more for death.
- Creation of new fund:** The Bill provides for a **Motor Vehicle Accident Fund**, which would provide compulsory insurance cover to all road users in India for certain types of accidents. The 1988 Act already has a **Solatium Fund** for victims of hit-and-run accidents, but the new Bill has also provided for another Fund. And the money will come either from the government or from a grant or loan.
- Financial liability for defect in road design:** For any road crash injury or death caused by defective road design and engineering, the designated authority responsible to construct and maintain the road is to be penalized with a sum capped at **Rs. 1 lakh**.
- More categories in driving licences:** While under the 1988 Act, a driving licence is valid for 20 years until a person turns 50 and for five-year periods after the age of 50, under the new law, more categories have been created. A driving licence issued to a person under the age of 30 is valid till the person turns 40. For those who receive licences between the ages of 30 and 50, the licence will remain valid for 10 years. If the licence is issued between 50 and 55 years, it will be valid until the person turns 60 and above 55 years, licences will carry a five-year validity.
- Taxi Aggregators:** The Bill defines aggregators as a digital intermediary or market place for a passenger to connect with a driver for the purpose of transportation. Aggregators currently are to comply with the **Information Technology Act, 2000**. Thus, the Aggregators are as yet unregulated in India but this Bill seeks to change that.
- Vehicle recall:** The new Bill provides for the recall of vehicles if the defective vehicle is a danger to the environment, the driver or other road users. The manufacturer will then have to reimburse all buyers with the full cost of the vehicle, replace the defective vehicle and if necessary pay a fine as specified by the government.

Key provisions

- Aadhaar number required to apply for driving licence
- No need to visit transport office to get a learning driving licence as process will be online
- Contractor responsible for bad roads liable to be fined
- Bill defines cab aggregators
- Stricter penalties proposed for high-risk offences such as drunken driving, dangerous driving and non-adherence to safety norms by drivers (such as not using seat belts and helmets)

- **Protection of Good Samaritans:** The Bill suggests several provisions for the protection of Good Samaritans. If someone helps the accident victims, he/she will be protected from the civil or criminal liability.

State Government Concerns

- **Against federalism:** Some State governments are concerned about the new provisions, **Sections 66A** and **Section 88A**, which will empower the Centre to form a **National Transportation Policy** through a process of consultation and not concurrence. The changes will also enable centrally drafted schemes to be issued for national, multi-modal and inter-State movement of goods and passengers, for rural mobility and even last-mile connectivity. Since all this represents a new paradigm that would shake up the sector, several States have opposed the provisions as being anti federal.
- **Corporatization of vehicle registration:** **Clause 44** of the Bill sought to pass on the powers of registration of vehicle from the Regional Transport Office to private dealers.

Defects In The Proposed Amendment

- **Lack of investigation agency:** There are some new provisions to harness technology, including CCTV monitoring, to improve road safety, but these cannot produce results when there is no professional accident investigation agency to determine best practices.
- **Poor enforcement:** Many of the proposed amendments deal with road safety. These however, are likely to achieve little without strong enforcement by the States.
- **Purpose of new fund unclear:** Under the Act, compensation for hit and run victims comes from a Solatium Fund. The Bill creates a new Motor Vehicle Accident Fund in addition. With a Fund already existing to provide compensation for hit and run accidents the purpose of the new Accident Fund is unclear.
- **Nature of offence for imposing penalty not defined:** While the penalties for contravening provisions of the proposed scheme on interim relief to accident victims are specified in the Bill, the offences that would warrant such penalties have not been specified. It may be argued that imposing penalties without knowing the nature of the offences is unreasonable.

Way forward

- There is a need to incorporate the **Safe System Approach** in all aspects of road design, engineering and construction. This approach takes into account the possibility of human error and ensures that the surrounding environment and infrastructure are designed to save lives.
- Care is needed to see that other measures, such as sharply enhancing fines for rule violations, do not only result in greater harassment. It is the certainty of enforcement, zero tolerance and escalating penalties that will really work.
- The opposition to the bill is not correct as the passenger transport sector operating within cities and providing inter-city services has grown amorously with vested interests exploiting the lack of

transparency and regulatory bottlenecks. With a transparent system, professional new entrants can enter the sector.

- As things stand, State run services have not kept pace with the times. Major investments made in the urban metro rail systems are yielding poor results in the absence of last mile connectivity services. Thus, Creating an equitable regulatory framework for the orderly growth of services is critical. This could be achieved through changes to the MV Act that set benchmarks for States.
- Enabling well-run bus services to operate across States with suitable permit charges is an imperative to meet the needs of a growing economy. Regulatory changes introduced in **Europe** over the past few years for bus services have fostered competition, reduced fares and increased services operating across European Union member-states.

Technology

RUCO Initiative

Syllabus: Science and Technology- developments and their applications and effects in everyday life

In News

- The Food Safety and Standards Authority of India (FSSAI) has launched **RUCO (Repurpose Used Cooking Oil)**, an initiative that will enable **collection and conversion of used cooking oil to bio-diesel**.
- As of now, used cooking oil is either not discarded at all or is disposed in an environmentally hazardous manner & sometimes finds its way to smaller restaurants, dhaabas and street- vendors.
- FSSAI is also looking to introduce regulations to ensure that companies that use large quantities of cooking oil hand it over to registered collecting agencies to convert it into biofuel. E.g., McDonald's has already started converting used cooking oil to biodiesel from 100 outlets in Mumbai and Pune.
- The regulator believes India has the potential to recover 220 crore litres of used cooking oil for the production of biodiesel by 2022 through co-ordinated action.
- Further the regulations prescribe the **limit for Total Polar Compounds (TPC)** to be a **maximum 25%**, beyond which the cooking oil is unsafe for consumption.
- The ecosystem will serve as a word of caution to businesses and consumers to step back and stop usage of the cooking oil after repeated frying.
- FSSAI is also working in partnership with Biodiesel Association of India and food industry to ensure effective compliance of used cooking oil regulations. It will publish guidance documents, tips for consumers & posters in this regard & conduct awareness campaigns through its e-channels.
- FSSAI has additionally launched a **micro-site to monitor the progress** of the collection and conversion of used cooking oil into biodiesel.
- The regulator is implementing an **Education, Enforcement and Ecosystem (EEE) strategy** to divert UCO from the food value chain and curb current illegal practices. Thereby, ensuring good health and welfare of all its 130-crore citizens, aiding energy security, climate change mitigation, and leading to environmentally sustainable development.

How Zika Virus Causes Microcephaly

Syllabus: Science and Technology- developments and their applications and effects in everyday life

In News

- Scientists from National Brain Research Centre (NBRC) have successfully identified the molecular and cellular mechanisms by which Zika virus causes Microcephaly.
- The researchers found the envelop protein (E protein) of Zika virus, which is responsible for entry of virus into the brain stem cells and responsible for arresting proliferation of human foetal neural stem cells and also killing cells that were becoming neuron-like. The combined effect reduces the pool of foetal brain cells leading to smaller size of the brain.
- The study shows that neutralizing E protein of Zika virus can help prevent or reduce its harmful effects in developing foetus .The E protein can be seen as a likely therapeutic target.



About Zika Virus

- Zika virus is a vector borne disease transmitted primarily by Aedes aegypti mosquitoes, which also transmits dengue. It can also spread through blood transfusion and sexual contact.
- It is capable of causing serious birth defects i.e. neurological disorders and foetal deformation known as Microcephaly in which infants are born with abnormally smaller heads.
- Besides, a possible link between the virus and Guillain-Barré syndrome (a condition in which the body’s immune system attacks part of the nervous system) is also suspected.
- There is **no specific treatment or vaccine** currently available to treat Zika. The best form of prevention is protection against mosquito bites & clearing stagnant water where mosquitoes breed.

About National Brain Research Centre

- The National Brain Research Centre is a neuroscience research group, situated in Manesar in Gurgaon district.
- It is an Autonomous Government Institute accredited with the deemed university status and is a nodal center under Department of Biotechnology of the Ministry of Science and Technology.

New Influenza Vaccine

Syllabus: Science and Technology- developments and their applications and effects in everyday life

In News

- India and European Union have collaborated on a research programme called the **Horizon 2020**.

- This programme will be used to develop the next generation of Influenza vaccine that will help in protecting people around the world. India's Department of Biotechnology (DBT) and EU have committed to 15 million Euros i.e. Rs. 240 crore for this research programme.

What Is Horizon 2020 Research Project

- This project will focus on a cost-effective and affordable influenza vaccine that will be developed with the aims of advancing the efficacy, safety, duration of immunity, and reactivity against influenza strains.
- The vaccine will be developed by EU-India consortia. This effort will help at bringing together multi-disciplinary stakeholders who represent any part of the chain from lab to market and will comprise a minimum of three applicants from Europe or countries associated to EU programme Horizon 2020 and three applicants from India, where in other countries too are free to join these EU-India consortia.

What Will Be The Significance Of This Initiative

This project will help in contributing to the achievement of a sustainable development goal 3 (SDG-3). It will ensure the health and well-being for all and also help the international community to prepare better in the event of an influenza pandemic.

Scientists Decode Complex Wheat Genome

Syllabus: Science and Technology- developments and their applications and effects in everyday life

Background

- Wheat is the most widely-cultivated crop on Earth. It provides more protein than meat in the human diet, and contributes about a fifth of calories consumed by humans. It also has a large and complex genome with 16 billion base pairs -- the building blocks of DNA -- which is more than five times larger than the human genome.
- But wheat is susceptible to drought and flood, and swathes of the crop are damaged each year by diseases such as wheat rust. The sequencing of its genome paves the way for much faster production of wheat varieties adapted to climate challenges, with higher yields, enhanced nutritional quality and improved sustainability.
- Sequencing the genome has long been a huge challenge. As well as its enormity, it has three sub-genomes and a large part of it is composed of repetitive elements. This means that vast parts of the genome are very similar, if not identical, to each other. This has made it difficult, until now, to distinguish each sub-genome and to put together the genome into its correct order
- Team of international researchers including 18 Indian scientists for first time has decoded wheat genome. In this research, DNA sequence of bread wheat was successfully ordered and it represents highest quality genome sequence generated to date for such wheat variety.

Significance

The research shows that bread wheat has complex hexaploid genome which is 40 times larger than that of rice genome and 5 times larger than human genome Information generated by decoded wheat

genome will help to identify genes controlling complex agronomic traits such as yield, grain quality, resistance to diseases and pests as well as tolerance to drought, heat, water logging and salinity. The availability of high quality reference genome will accelerate breeding of climate-resilient wheat varieties to feed ever-increasing world population and help address global food security in decades to come.

NASA's New Planet Hunting Probe - TESS

Syllabus: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-tech etc

In News

- NASA's latest planet hunting probe –**Transiting Exoplanet Survey Satellite (TESS)** – has started its search for new worlds around nearby stars.
- TESS is the next step in the search for planets outside of our solar system, including those that could support life. The mission will find Exoplanet that periodically block part of the light from their host stars, events called transits.
- TESS will survey 200,000 of the brightest stars near the sun to search for transiting Exoplanet. TESS launched on April 18, 2018, aboard a SpaceX Falcon 9 rocket.
- TESS scientists expect the mission will catalog thousands of planet candidates and vastly increase the current number of known Exoplanet. Of these, approximately 300 are expected to be Earth-sized and super-Earth-sized Exoplanet, which are worlds no larger than twice the size of Earth.

Mission Approach

TESS will survey the entire sky over the course of two years by breaking it up into 26 different sectors. The powerful cameras on the spacecraft will stare at each sector for at least 27 days, looking at the brightest stars at a two-minute cadence. From Earth, the moon occupies half a degree, which is less than 1/9,000th the size of the TESS tiles.

The Transit Method

The transit method of detecting Exoplanet looks for dips in the visible light of stars, and requires that planets cross in front of stars along our line of sight to them. Repetitive, periodic dips can reveal a planet or planets orbiting a star. Transit photometry, which looks at how much light an object puts out at any given time, can tell researchers a lot about a planet. Based on how much of a dip in light a planet causes in its star, we can determine that planet's size. Looking at how long it takes a planet to orbit its star, scientists are able to determine the shape of the planet's orbit and how long it takes the planet to circle its sun.

What Is an Exoplanet?

All of the planets in our solar system orbit around the Sun. Planets that orbit around other stars are called Exoplanet. Exoplanet are very hard to see directly with telescopes. They are hidden by the bright glare of the stars they orbit.

ISRO Postpones Launch Of Chandrayaan-2 Mission

Syllabus: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-tech etc

In News

Indian Space Research Organisation (ISRO) has postponed Chandrayaan-2, India's second mission to moon to January 2019. This will be second time mission has been postponed.

Chandrayaan 2 Mission

- Chandrayaan-2 is India's most challenging and India's second mission to Moon. It is advanced version of previous Chandrayaan-1 mission (launched in 2008) which only involved orbiting around moon, Chandrayaan-2 is much complicated mission as it involves an orbiter, lander and rover.
- Chandrayaan 2 will be launched on board of Geosynchronous Satellite Launch Vehicle Mk III (GSLV-F10). It will be ISRO's first inter-planetary mission to land rover on any celestial body.
- The spacecraft (orbiter) weighs around 3,290 kg and it will orbit around moon and perform objectives of remote sensing moon.
- The six wheeled rover will move on unexplored lunar surface and collect soil or rock samples for on-site chemical analysis to gather scientific information on lunar topography, mineralogy, elemental abundance, lunar exosphere and signatures of hydroxyl and water-ice. The data will be relayed to Earth through orbiter. The rover will move around landing site in semi-autonomous mode as decided by the ground commands.
- The soft-landing on the lunar surface of the moon will be most complex part of Chandrayaan 2 mission. Only US, Russia and China have been able to soft land spacecraft on lunar surface.

Roadmap For Manned Flight To Space

Syllabus: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-tech etc

In News

- Indian Space Research Organization (ISRO) unveiled details of its first indigenous human space mission dubbed as Gaganyaan to be launched in 2022. The mission was announced by Prime Minister during his 72nd Independence Day speech. Under it, three Indian astronauts (Gaganyatris) will be taken to space on board Gaganyaan spacecraft by 2022.
- This will be the first human space mission to be indigenously developed by ISRO. If successful, India will become fourth nation in the world to send astronaut into space after US, Russia and China. Former Indian Air Force (IAF) Rakesh Sharma was first Indian to travel to space. He was part of the Soviet Union's Soyuz T-11 expedition, launched on April 2, 1984, of the Intercosmos programme.

Objectives of Gaganyaan Mission

Enhancement of science and technology levels in the country, serve as national project involving several institutes, academia and industry, improve of industrial growth, inspire youth, develop technology for social benefits and improve international collaboration.

Key Features of Mission

Launch Phase: GSLV Mk-III launch vehicle will be used to launch Gaganyaan as it has necessary payload capability for this mission. It weighs approximately 7 tonnes and will be placed in low earth orbit (LEO) of 300-400 km.

Orbital Phase: The mission will send three-member crew to space for period of five to seven days. The launch vehicle will take off from spaceport of Sriharikota, Andhra Pradesh and it will reach desired orbit in 16 minutes. The crew will be selected by Indian Air Force (IAF) and ISRO jointly after which they will undergo training for two-three years. It will conduct microgravity experiment during the mission.

Re-entry phase: The velocity of whole module will be reduced and will be turned in opposite direction so that it can start to come down. When it will reach distance of 120 km from Earth's surface, service module will be removed and separated out. The module carrying crew alone will come back to earth, this will take about 36 minutes to reach Earth. ISRO is planning to land crew module in Arabian Sea, closer to Gujarat coast or in Bay of Bengal or even on land from where the crew will be recovered.

World's First Wind-Sensing Satellite

Syllabus: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-tech etc

In News

- European Space Agency (ESA) successfully launched wind-sensing satellite named 'Aeolus' into orbit on board of Vega rocket from French Guyana.
- It is world's first wind-sensing satellite dedicated to map Earth's wind on global scale in particular tropical winds which are very poorly mapped.
- The satellite is named after guardian of wind in Greek mythology. It will be placed at altitude of 320km above the Earth. It is part of the **Copernicus project**, a joint initiative of European Union (EU) and European Space Agency (ESA) to track environmental damage and aid disaster relief operations.

OSIRIS-REX SPACECRAFT

Syllabus: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-tech etc

In News

- After an almost two-year journey through space, **NASA's Origins, Spectral Interpretation, Resource Identification, Security-Regolith Explorer** (OSIRIS-REx) caught its first glimpse of Benu, a carbonaceous asteroid whose makeup may record the earliest history of our Solar System and began the final approach toward the asteroid.
- Using its multipurpose **PolyCam camera**, the spacecraft obtained the image of Benu from a distance of 1.4 million miles (2.2 million km), or almost six times the distance between the Earth and Moon.
- OSIRIS-REx, led by the University of Arizona's Lunar and Planetary Laboratory, is the **first U.S mission** to retrieve a sample from an asteroid and return it Earth for study. The material it returns will be the largest sample brought back from space since the Apollo era.
- The spacecraft is scheduled to reach small, roundish asteroid in 2018 and return to Earth after collecting some of its gravels by 2023. OSIRIS-Rex will capture 60 grams dirt and debris from surface of asteroid using its robotic arm without landing i.e. by hovering like hummingbird stirred up by nitrogen gas thrusters and then to Earth for detailed analysis of the collected samples.
- After arrival at Benu, OSIRIS-Rex spacecraft will spend first month performing flybys of asteroid's North Pole, equator and South Pole at distances ranging between 19 and 7 kilometers from it.
- These manoeuvres will allow for first direct measurement of Benu's mass as well as close-up observations of surface. These trajectories will also provide the mission's navigation team with experience navigating near the asteroid.

Benu

Benu is near-Earth carbonaceous asteroid about the size of a small mountain in the Apollo group. It was discovered in September 1999 by the LINEAR Project. It is carbon-rich asteroid and believed to be the type of asteroids that may have chemical building blocks of life, along with lots of water. So, analysis of returned sample from it could help to reveal key insights about early solar system and the origin of life on Earth. It is potentially hazardous asteroid and there is very slight chance it could strike into Earth in the late 22nd century.

First Single-Chromosome Yeast

Syllabus: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-tech etc

In News

Chinese scientists claimed to have created the first single-chromosome yeast while not affecting the majority of its functions.

Key Highlights

- Brewer's yeast, one-third of whose genome is said to share ancestry with humans, has 16 chromosomes. However, Chinese scientists have managed to fit nearly all its genetic material into just one chromosome while not affecting the majority of its functions.
- **The researchers used CRISPR-Cas9 genome-editing to create a single-chromosome yeast strain.** Using the CRISPR-Cas9, the research team removed the DNA at the telomeres, the ends of chromosomes that protect them from degrading.

- They also snipped out the centromeres, sequences in the middle that are important to DNA replication. First, they fused two chromosomes, then joined the product to another chromosome, and repeated the process in successive rounds until there was only one chromosome left.

Significance

- By simplifying a complex genome system, the research provides a new approach to studying the functions of telomeres. Earlier research found that the length of telomeres is related to early aging, the formation of tumours, and other diseases. Telomeres shorten as a cell splits, but if telomeres cannot shorten anymore, the cell dies. Hence, the breakthrough could help in furthering research related to aging and diseases in humans. It may also pave the way for new man-made species in the future.
- It showed that all the genetic information can be concentrated in just one chromosome.

What is yeast

- Yeast is a plant, according to the biologists, and is capable of reproducing itself. A piece of yeast consists of minute cells, with walls composed of cellulose, and an interior of living matter called protoplasm.
- One can feed it with a solution of sugar to make it grow, or it can be 'killed' by 'starvation' or heat, so Yeast are microscopic, single-celled organisms that are classified in the family Fungi.
- Individual yeast cells multiply rapidly by the process of budding, in which a new cell begins as a small bulge along the cell wall of a parent cell.
- In the presence of an abundant food source, huge populations of yeast cells gather. The cells often appear as long chains with newly formed cells still attached to their parent cells, due to the short budding time of two hours.

RISECREEK

Syllabus: Indigenization of technology and developing new technology.

In News

- Computer scientists from Indian Institute of Technology (IIT), Madras have **developed the first of family of six industry-standard microprocessors** under **Project Shakti**.
- Project Shakti was started in 2014 as IIT-M initiative and part of it is funded by Ministry of Electronics and Information Technology.

About RISECREEK Microprocessors

- Their design is an open source and can be adapted by others.
- They optimizes power use and competes with international units such as Cortex A5 from Advanced RISC Machines (ARM).
- They have better performance in terms of DMIPS [*Dhrystone MIPS (Million Instructions per Second), or DMIPS, is a measure of computer performance relative to the performance of the DEC VAX 11/780 minicomputer of the 1970s*] per megahertz.

- These viable industry-grade **microprocessors can operate at a frequency of 350 MHz**, thus meets demands of defence and strategic equipment of the country such as **NAVIC (Indian Regional Navigation Satellite) and Internet of Things (IoT) electronics**.
- These processors can also be tapped for future efforts in semiconductors.

Thermal Battery Plant Unveiled In Andhra

Syllabus: Indigenization of technology and developing new technology.

In News

- In a bid to go green, the world's first thermal battery plant will be unveiled in Andhra Pradesh.
- The battery plant will be operated by the Bharat Energy Storage Technologies Pvt Ltd (BEST) and is seen as a great alternative to the energy produced using fossil fuels.

Key Highlights

- Hailed as the perfect alternative to non-renewable energy sources, thermal energy is considered to be even better than solar energy. Solar batteries cannot be charged or utilized to their optimum potential after sunset or even when the skies are densely clouded.
- Lithium batteries, which are widely used currently, have a heavy carbon footprint and can be expensive as they only last approximately 6-7 years. They will be priced at par with the Lithium batteries but will have a low carbon footprint and also last longer.
- BEST plans to make their plant in Andhra Pradesh a 100% eco-friendly one. For this purpose, they will use no hard metals in their plant and no inflammable substances. Instead, they are using equipment that comprises 95% re-usable materials.
- These thermal batteries will be produced to store energy to power telecommunications, commercial enterprises and charging systems. They will also charge electric buses that are expected to run as far as 800km on a single charge.

Environment and Biodiversity

Kerala To Get Cyclone Warning Centre

Context

- The Union Ministry of Earth Sciences has announced it will set up a cyclone warning centre in **Kerala** and boost weather forecasting in the state with another Doppler radar
- The new centre will be set up in Thiruvananthapuram. At present, India Meteorological Centre (IMD) has six cyclone warning centres, **four along the east coast at Chennai, Visakhapatnam, Bhubaneswar and Kolkata, and two along the west coast at Ahmedabad and Mumbai**.
- In view of the recent heavy rainfall, and concerns over extreme weather activities in future, the ministry has decided to set up another centre, which will provide regular coastal bulletins and heavy rainfall alerts. This will enable the state to prepare better in case of developing low-pressure and

further strengthen the present forecasting activity of the IMD's existing office in Thiruvananthapuram.

- The ministry has also proposed setting up another C-band Doppler weather radar at Mangalore to provide “nowcast” alerts for severe weather, including thunderstorms triggered by heavy rain for the next 2-3 hours.
- Currently, there are two Doppler radars in the state, at Kochi and Thiruvananthapuram, which cover the central and southern districts, respectively. With the addition of radar, the entire state will be covered for monitoring rainfall and severe weather events.
- Thunderstorms are easily captured by radar. The track can be seen and warning can be issued three hours ahead. Since they are formed in association with heavy rains and cyclones, these radars are extremely useful links before severe weather affects the state.

International Tiger Day: 29 July

In News

- Tigers could go extinct within the next decade. But fortunately, the conservation strategy aimed at doubling them by 2022, Tx2, is starting to work.
- **The decline of tigers:** According to the latest **WWF** estimates (2016), **there are only 3,890 tigers left in the wild**, whilst at the beginning of the 20th century their number exceeded 100,000. But these figures seem to be conservative, since data of other populations aren't considered. Therefore, the situation could be worse than expected. And Bangladesh confirms it, by releasing the new **census of the Sundarbans National Park that registered only 100 tigers approximately**, compared to the 440 individuals in 2004. The **lack of accurate data on these animals' status** does not allow defining urgent actions to be taken.
- **Doubling wild tigers:** In 2010, **Saint Petersburg hosted the Tiger Summit, in which countries committed to the goal Tx2**, i.e. doubling wild tigers by 2022. We are more than a third of the way to 2022.
- **Tigers are on the rise for the first time in 100 years:** In April 2016, WWF has announced that global tiger populations are on the rise, for the first time in more than 100 years. 3,890 tigers now exist in the wild globally – up from an estimated 3,200 in 2010, an increase made possible by more effective and far-sighted conservation actions.
- **Celebrating tigers:** Global Tiger Day is celebrated on the 29th of July worldwide, with numerous initiatives mostly organised by the 13 countries home to this feline: *Bangladesh, India, Burma, Thailand, Cambodia, Indonesia, China, Malaysia, Vietnam, Laos, Bhutan, Nepal, and Russia*. The international day, established in 2010, aims to raise people's awareness and support tiger conservation. The main threat to tigers is poaching. On the black market, the fur and bones represent the major demand, mostly in Asia, where they are used in traditional medicine, illegally maintaining beliefs lacking of any scientific basis.
- **Let's save tigers before it's too late :** According to biologists, if the trend is not reversed, **tigers could go extinct within the next 10 years**. Alongside poaching, the survival of these majestic

felines is threatened by habitat loss caused by deforestation. In South-East Asian countries, entire forests are being wiped out, in order to obtain timber and grazing lands. Maybe it is not too late to save this extraordinary creature, **a real heritage of the entire world**, which is made of tusk and stripes, and is elusive as a ghost.

Scenario India

India remains the nation with largest tiger population.

- What is worrying is that even the best of tiger habitats and reserves are not spared. Highways and railway lines are being expanded in the corridor **connecting Kanha and Pench tiger reserves and a railway line through Melghat tiger reserves** is being expanded.
- Unless we factor in tiger concerns in our development agenda, unless we hold tiger habitats and the critical tiger corridors as sacrosanct we are looking at a bleak future.
- Another controversial decision by the government has been to sanction the Ken-Betwa river linking project, which when realised will submerge over 100 square kilometres of the Panna Tiger Reserve in Madhya Pradesh.
- India has one of the lowest per capita forest areas in the world. Forests as carbon sinks are deemed to be a major mean of controlling climate change. Depletion of forests is responsible for reduction of tiger habitats. As forest lands fall to development projects, habitable land for animals that make for the tiger's food base are also reduced.
- We have 3,00,000 sq kilometres of forest tiger area and tigers are currently found in 90,000 sq kilometres. So there is enough forest area out there for increasing the number of tigers. Unfortunately, this entire forest area does not have the prey base. It is not only about protecting the tiger but also protecting its food source.
- Another issue that has hindered tiger conservation in India and globally is poaching, which will persist as long as there is an illegal market for tiger body parts.
- The National Tiger Conservation Authority (NTCA) has launched **the M-STriPES (Monitoring System for Tigers - Intensive Protection and Ecological Status), a mobile monitoring system for forest guards.**
- There is acute shortage in our frontline forest staff, and they are also not well-equipped or trained in intelligence and other policing skills for their task.

However, given the many challenges, we have a long way to go before the tigers have a secure habitat of their own.

Impact Of Roads On Wildlife

In News

The Centre has asked Karnataka to consent to allowing night traffic on the highway passing through Bandipur Tiger Reserve.

Analysis

Wild animals are vulnerable to vehicular traffic passing through forests, especially at night when, blinded by bright headlights, even swift species like cats freeze. Over time, as animals learn to avoid roads, busy multilane highways become barriers that hinder wildlife movement, fragment populations, and restrict gene flow. By blocking access to potential habitats, roads, railway lines and irrigation canals act as a major contributor to habitat loss.

India's Policy

In September 2013, the National Board for Wildlife (NBWL), the apex advisory body to the central government on all wildlife-related matters, said no to new roads through protected forests, but was open to the widening of existing roads with adequate mitigation measures irrespective of the cost, only if alternative alignments were not available. The government accepted this as policy in December 2014. In February 2018, the NBWL made it mandatory for every road/rail project proposal to include a wildlife passage plan as per guidelines framed by Wildlife Institute of India, an autonomous wildlife research body under the Environment Ministry.

Elsewhere Too

Roads have destroyed tropical rainforests in South America, Asia and Africa. Though under severe pressure, the Amazon rainforests still hold over 1 million sq km of no-go zones, including national parks and territories for indigenous peoples in voluntary isolation. In North America and Europe, where the road network is extensive and wildlife density lower, wildlife passageways are more common. In many protected areas such as South Africa's Kruger National Park and Botswana's Moremi Game Reserve, night traffic is prohibited.

Bandipur Story

- In July 2008, Karnataka closed night traffic on the Mysore-Mananthavadi highway passing through **Nagarhole Tiger Reserve**. This, and reports of frequent roadkills in Bandipur, prompted the Chamarajnagar district administration in June 2009 to restrict vehicular traffic between 9 pm and 6 am on two national highways passing through the reserve. Protests by Kerala, however, led to the order being withdrawn.
- After a PIL was filed, Karnataka High Court restored the ban on night traffic in July 2009. After the final order came in March 2010, Karnataka spent Rs 75 crore to repair an alternative road, but also opened the forest highway to 12 state transport buses and emergency services during restricted hours. **The state's night traffic ban was subsequently replicated in Tamil Nadu (Mudumalai Tiger Reserve) and Gujarat (Gir National Park).**
- **The new plan:** Two days before the July 23 date of submission of its report, the Ministry Secretary asked Karnataka to consent to a proposal to open the road 24x7 with certain mitigation measures. The proposal included elevating the road over four 1-km stretches to provide wildlife passageways below, and fencing the entire highway passing through the reserve with 8-foot-high steel wire barriers. While this may work for elephants if the passageways cover their traditional routes, for territorial animals, just four openings in a 24-km stretch may not suffice.
- The argument for opening up and widening the restricted road is that the alternative road is 30 km longer, and apparently passes through hilly terrain — increasing travel time, fuel consumption, and

pollution. Also, it is argued, traffic through a tiger reserve endangers wildlife even during the day, so fencing and passageways are a better idea.

- **What next :** The question is whether a 30-km detour to safeguard one of India's most wildlife-rich forests is an unaffordable economic burden or a minor concession necessary in the national interest. Depending on Karnataka's response to the request from the Union Ministry, the committee will finalise and submit its report before the Supreme Court by September 10.

PARIVESH

In News

PARIVESH (Pro-Active and Responsive facilitation by Interactive, Virtuous and Environmental Single-window Hub) was launched on the occasion of World Biofuel Day, 10th of August, 2018.

What Is It

- PARIVESH is a Single-Window Integrated Environmental Management System, developed in pursuance of the spirit of 'Digital India'.
- PARIVESH automates the entire process of submitting the application and tracking the status of such proposals at each stage of processing.
- It has been rolled out for online submission, monitoring and management of proposals submitted by Project Proponents to the Ministry of Environment, Forest and Climate Change (MOEFCC), as well as to the State Level Environmental Impact Assessment Authorities (SEIAA), to seek various types of clearances (e.g. Environment, Forest, Wildlife and Coastal Regulation Zone Clearances) from Central, State and district-level authorities
- The system has been designed, developed and hosted by the Ministry of Environment, Forest and Climate Change, with technical support from National Informatics Centre, (NIC), New Delhi.
- PARIVESH also helps the processing authorities, as it has a Single Window System for Central, State and District level clearances, auto-generation of agenda (based on first come, first served principle), resulting in ease and uniformity in processing of clearance applications, online submission and monitoring of compliance reports including geo-tagged images of the site by regulatory body / inspecting officers even through the Mobile App for enhanced compliance monitoring.
- PARIVESH enables project proponents, citizens to view, track and interact with scrutiny officers, generates online clearance letters, online mailers and alerts to state functionaries in case of delays beyond stipulated time for processing of applications.

National Wildlife Genetic Resource Bank Dedicated To Nation

In News

- **Also known as** The Laboratory for the Conservation of Endangered Species (LaCONES), is a dedicated laboratory of the CSIR-Centre for Cellular and Molecular Biology (CCMB),

Hyderabad and the only institute in the country working towards conservation of endangered wildlife using modern biotechnologies to save endangered wildlife species of India.

- **Wildlife Genetic Resource Banking (GRB) is the systematic collection and preservation of tissues, sperm, eggs and embryos, genetic material (DNA/RNA).**
- It is one of the promising options for future species management of threatened populations that also extends the reproductive life span of individuals beyond their life and prevents the loss of valuable individuals to the gene pool.
- CCMB-LaCONES is the only laboratory in India that has developed methods for collection and cryopreservation of semen and oocytes from wildlife and successfully reproducing endangered blackbuck, spotted deer and Nicobar pigeons.
- The Telangana Forest Department, Central Zoo Authority, Nehru Zoological Park and CCMB have joined hands to conduct the first ever planned reintroduction of the Indian spotted chevrotain (*Moschiola indica*), also known as Indian mouse deer to be reintroduced in the Farahabad Range of Amrabad Tiger Reserve.
- This follows more than seven years of conservation breeding of the elusive species at a dedicated facility in the premises of Nehru Zoological Park, which increased the captive mouse deer population to around 230 individuals till March this year.
- For cryogenic preservation, the researchers at CCMB-LaCONES use liquid Nitrogen that is cooled down to as low as minus 195 degrees Celsius. So far, genetic resources of 23 species of Indian wild animals have been collected and preserved at the bank. In the coming years, the authorities are aiming to collaborate with other leading zoos in the country to collect genetic resources of animals and increase the collection by at least five times.

Khangchendzonga Biosphere Reserve

In News

- Khangchendzonga Biosphere Reserve has become the 11th Biosphere Reserve from India that has been included in the UNESCO designated World Network of Biosphere Reserves (WNBR).
- The decision to include Khangchendzonga Biosphere Reserve in WNBR was taken at the 30th Session of International Coordinating Council (ICC) of Man and Biosphere (MAB) Programme of UNESCO held at Palembang, Indonesia, from July 23-27, 2018. India has 18 Biosphere Reserves and with the inclusion of Khangchendzonga, the number of internationally designated WNBR has become 11, with 7 Biosphere Reserves being domestic Biosphere Reserves.

About The Reserve

- Khangchendzonga Biosphere Reserve in Sikkim is one of the highest ecosystems in the world, reaching elevations of 1, 220 metres above sea-level. It includes a range of ecolines, varying from sub-tropic to Arctic, as well as natural forests in different biomes that support an immensely rich diversity of forest types and habitats.
- The core area of the Biosphere Reserve is a major transboundary Wildlife Protected Area. The southern and central landscape, which makes up 86% of the core area, is situated in the Greater

Himalayas. The northern part of the area accounts for 14% is characterized by trans-Himalayan features. Buffer zones are being developed to promote eco-tourism activities. Plantation and soil conservation work is also being carried out.

- The core zone – Khangchendzonga National Park was designated a World Heritage Site in 2016 under the 'mixed' category.
- Many of the mountains, peaks, lakes, caves, rocks, Stupas (shrines) and hot springs function as pilgrimage sites.
- Over 118 species of the large number of medicinal plants found in Dzongu Valley in north Sikkim are of ethno-medical utility.
- The transition zone is targeted for eco-development activities, afforestation, plantation of medicinal herbs and soil conservation measures.

Closure Of Resorts In Nilgiri Valley Elephant Corridor

Context

- Supreme Court has ordered to clamp down on resorts operating without approval in the elephant corridor of the Nilgiris.
- Elephant deaths in the country have reached an appalling number. In the last one year, if we rule out natural causes, the number of elephants that died after being hit by vehicles on highways, or after being electrocuted on railway tracks, is worrying.
- The Supreme Court has observed that elephants are national heritage and must be protected at all costs. In many instances, wild animals like the elephants, big cats or other carnivores are termed as ferocious or dangerous, but the truth is that these territorial, vulnerable animals can be quite defensive in the wild. If they see any threat, even in human form, they might charge at you with full force. And as it is humans who are wandering into forest territory, elephants should not suffer for it.

Consolidating Corridors

- India has an estimated wild population of about 25,000-28,000 elephants, roughly 50 per cent of the world's Asian elephant population. These range across 26 Elephant Reserves spread over about 110,000 sq. km. forests in northeast, central, northwest and south India.
- Of the 88 elephant corridors identified, 12 are in northwestern India, 20 in central India, 14 in northern West Bengal, 22 in northeastern India and 20 in southern India. Of the total, 77.3 per cent of the corridors are being regularly used by elephants.
- Fragmentation of elephant habitat was most severe in northern West Bengal followed by northwestern India, northeastern India and central India respectively. The least fragmentation was noted in southern India.

- The largest single population of elephants in Asia occupy areas of the region extending from the Brahmagiri hills to the Eastern Ghats, comprising the Nilgiri hills of Tamil Nadu, the Bandipur-Nagarahole Protected Area complex of Karnataka, Wynad in Kerala and the Biligiri Ranganswamy Temple Sanctuary of Karnataka adjoining the Satyamangalam, Kollegal, Hosur and Dharmapuri Forest Divisions.
- The region has diverse vegetation types with over 3,300 sq. km. out of a total of about 12,600 sq. km. lying within the Protected Area network. This complex is estimated to have a minimum of 6,300 elephants.

The International Nitrogen Initiative

In News

- Indian scientist and academician **Nandula Raghuram** was elected as the Chair of the International Nitrogen Initiative (INI), a global policy making initiative.
- International Nitrogen Initiative (INI) is an international program, set up in 2003 under sponsorship of the Scientific Committee on Problems of the Environment (SCOPE) and from the International Geosphere-Biosphere Program (IGBP). The key aims of the INI are to:
 - Optimize nitrogen's beneficial role in sustainable food production, and
 - Minimize nitrogen's negative effects on human health and the environment resulting from food and energy production.

India Bans Petroleum Coke Import For Use As Fuel

In News

- Usage of petcoke, a dirtier alternative to coal, in the energy-hungry country has come under scrutiny due to rising pollution levels in major cities.
- India has banned the import of **petcoke for use as fuel**, but shipments for use as feedstock in some industries was allowed.
- Import of Petcoke is allowed for **only cement, limekiln, calcium carbide and gasification industries**, when used as the feedstock or in the manufacturing process on actual user condition.
- **As the world's largest consumer of pet coke, India imports** over half its annual petcoke consumption of about 27 million tonnes, mainly from the United States. Local producers include Indian Oil Corp, Reliance Industries and Bharat Petroleum.
- Director General of Foreign Trade (DGFT) notification follows a ruling of the Supreme Court last month that agreed to put into place recommendations from the court-appointed Environment Pollution Prevention & Control Authority (EPCA) to limit imports only to those industries using coke as a feedstock or in the manufacturing process, not as a fuel.
- Major **aluminum** makers Vedanta, Hindalco and Nalco import pet coke to make anodes for use in the smelters for electrolytic process to separate aluminum.

- On the other hand, in steel industry, the pet coke used in the steel melting shop are of high quality containing low impurities like Sulphur. Such high quality pet coke import is not banned. Hence, there will not be much impact on the large steel mills producing high grade steel.
- India is the world's biggest consumer of petroleum coke, as burning of it releases large amount of carbon dioxide and Sulphur dioxide, with high Sulphur content, is a dark solid carbon material that emits 11 percent more greenhouse gases than coal, according to the Carnegie-Tsinghua Center for Global Policy.

Odisha To Showcase Its Biodiversity

In News

The Odisha government is setting up a world-class interpretation centre at Dangamal near **Bhitarkanika Park** to showcase its efforts in protecting crocodiles and preserving its rich mangrove diversity.

Environment Learning

- The plan is to develop the centre both as a tourist attraction and a place for students to learn about the environment. Experts are being consulted for adding value to the project. **Bhitarkanika**, one of the State's finest biodiversity hotspots.
- The park is famous for its green mangroves, migratory birds, turtles, estuarine crocodiles and countless creeks. It is said to house 70% of the country's estuarine or saltwater crocodiles, conservation of which was started way back in 1975. In 1999 when coastal Odisha battered by Super Cyclone, the rich mangrove forests had then acted as a bio-shield. There was very little impact of the cyclone in the mangrove-forested regions.
- In fact, Kalibhanjdia Island spread over 8.5 square km, a place in Bhitarkanika, has attracted the attention of foreign scientists as it possesses 70% of the total mangrove species of the world.

Commute-Related Pollution: Kolkata Shines Among Megacities

In News

- **The report titled 'The Urban Commute and How it Contributes to Pollution and Energy'** has been compiled by the Centre for Science and Environment (CSE). Among cities evaluated by the CSE for emissions caused by urban commuting, Bhopal emerges on top with best air quality.
- An analysis of 14 cities in India, including six mega cities and eight metropolises, on how they fare when it comes to pollution and energy consumption from urban commuting, places **Kolkata as the top-performing megacity**.
- **Bhopal leads the list** on the lowest overall emissions. Delhi and Hyderabad are the two cities that fare at the bottom of the table in terms of pollution and energy use.

National Crisis

- The report said that the air pollution was a national crisis and road transport was the sector showing the highest increase in emission of greenhouse gases.

- In the study, with an aggregate of toxic emissions from urban commuting practices, such as particulate matter and nitrogen oxides, the cities were ranked based on calculations of heat trapping (CO₂). The study took two approaches to rank the cities — one based on overall emission and energy consumption and the other on per person trip emissions and energy consumption.
- Six megacities (Delhi, Mumbai, Kolkata, Chennai, Bangalore and Hyderabad) and eight metropolitan cities (Bhopal, Lucknow, Jaipur, Chandigarh, Ahmedabad, Pune, Kochi and Vijayawada) were evaluated.
- In terms of overall emissions and energy consumption, Bhopal was followed by Vijayawada, Chandigarh and Lucknow. Kolkata, which comes in at the sixth place on overall emissions, won among the six megacities. In fact, smaller cities such as Ahmedabad and Pune ranked below Kolkata for overall emissions.
- Delhi ranked at the bottom of the table for overall emission. Hyderabad, Bengaluru and Chennai fared a little better than Delhi.

Key Findings

- **Kolkata provides a resounding message that despite population growth and rising travel demand, it is possible to contain motorisation with a well established public transport culture, compact city design, high street density and restricted availability of land for roads and parking,**” the report pointed out, comparing Kolkata to Hong Kong and cities in Japan.
- Both Kolkata and Mumbai have grown with a unique advantage of a public transport spine well integrated with existing land use patterns,” the report said.
- The report said that Chennai was the first city to adopt a non-motorised transport (NMT) policy in 2004 that aims to arrest the decline of walking or cycling by creating a network of footpaths, bicycle tracks and greenways.
- Mumbai, the report stated, had the highest GDP but a lower rate of motorisation compared with other megacities, proving that income levels were not the only reason for deciding a population’s dependence on automobiles.

Revival of Cheetah Reintroduction Project

In News

The Madhya Pradesh forest department has written to the National Tiger Conservation Authority (NTCA) to revive the plan to **reintroduce cheetahs in the state's Nauradehi Wildlife Sanctuary.**

Analysis

- The ambitious project, conceived in 2009, had hit a roadblock for want of funds.
- The country's last spotted feline died in Chhattisgarh in 1947. Later, the cheetah -- which is the fastest land animal -- was declared extinct in India in 1952.
- **The Wildlife Institute of India (WII) at Dehradun** had prepared a Rs 260 crore cheetah re-introduction project around six years ago.

- It was estimated that an amount of Rs 25 crore to Rs 30 crore would be needed to build an enclosure in an area of 150 sq km for the cheetahs in Nauradehi.
- Nauradehi was found to be the most suitable area for the cheetahs as its forests are not very dense to restrict the fast movement of the spotted cat. Besides, the prey base for cheetahs is also in abundance at the sanctuary. As per the earlier action plan, around 20 cheetahs were to be translocated to Nauradehi from Namibia in Africa.

The cheetah is a large cat of the subfamily Felinae that occurs in Southern, North and East Africa, and a few localities in Iran. It is the fastest land animal. The species is IUCN Red Listed as vulnerable, as it suffered a substantial decline in its historic range in the 20th century due to habitat loss, poaching, illegal pet trade, and conflict with humans.

- The Namibia Cheetah Conservation Fund had then showed its willingness to donate the felines to India.
- MP houses **six major reserves for the tiger and is often called as the 'tiger state'**. Prominent among them are **Bandhavgarh, Pench and Kanha tiger reserves**.

About Wildlife Institute of India

- The Wildlife Institute of India (WII), Dehradun is an autonomous institution under the Ministry of Environment Forest and Climate change, Government of India.
- It carries out wildlife research in areas of study like Biodiversity, Endangered Species, Wildlife Policy, Wildlife Management, Wildlife Forensics, Spatial Modeling, Eco development, Habitat Ecology and Climate Change.

Nilgiri Tahr Climbs Population Charts

In News

A recent census has revealed that the population of the Nilgiri tahr (an endangered mountain goat) at the Mukurthi National Park has grown by an impressive 18% in the last two years, from 480 to 568.

Key Findings

- The population estimation exercise, completed in May, was conducted jointly by the Forest Department and the Department of Zoology and Wildlife Biology, Government Arts College, Udhagamandalam.
- The bad news is that the population also faces several threats. Researchers point to the continuing spread of invasive species of flora, such as wattle and pine, and exotic weeds like scotch broom (*Cystisus scoparius*) and gorse, which end up diminishing grazing land.

About The Nilgiri Tahr

- The shy and elusive Nilgiri tahr (*Nilgiritragus hylocrius*) lives at altitudes of 1,100 to 2,700 meters (3,600 to 8,900 feet) in the mountainous grasslands and rocky cliffs of the southern portion of the Western Ghats.
- Currently, about 3,000 individuals are known to occur in isolated groups that are restricted to the states of Kerala and Tamil Nadu, covering less than 10 percent of their former range.

- Extreme global warming could slash by 60 percent the amount of available habitat that is suitable for the tahr, a new study has found. It is currently in the EN (endangered List) of IUCN.

Western Ghats Ecology

In News

The catastrophic monsoon floods in Kerala and parts of Karnataka have revived the debate on whether political expediency trumped science.

Analysis

- Seven years ago, the Western Ghats Ecology Expert Panel (WGEEP) issued recommendations for the preservation of the fragile western peninsular region. Madhav Gadgil, who chaired the Union Environment Ministry's WGEEP, has said the recent havoc in Kerala is a consequence of short-sighted policymaking, and warned that Goa may also be in the line of nature's fury.
- **The State governments that are mainly responsible for the Western Ghats — Kerala, Karnataka, Tamil Nadu, Goa and Maharashtra — must go back to the drawing table with the reports of both the Gadgil Committee and the Kasturirangan Committee, which was set up to examine the WGEEP report.**
- The task before them is to initiate correctives to environmental policy decisions. This is not going to be easy, given the need to balance human development pressures with stronger protection of the Western Ghats ecology.

Core Issues

- The issue of allowing extractive industries such as quarrying and mining to operate is arguably the most contentious. A way out could be to create the regulatory framework that was proposed by the Gadgil panel, in the form of an apex Western Ghats Ecology Authority and the State-level units, under the Environment (Protection) Act, and to adopt the zoning system that it proposed. This can keep incompatible activities out of the Ecologically Sensitive Zones (ESZs).
- **Another issue in the Western Ghats — spread over 1,29,037 sq km according to the WGEEP estimate and 1,64,280 sq km as per the Kasturirangan panel — is the calculation of what constitutes the sensitive core and what activities can be carried out there.** The entire system is globally acknowledged as a biodiversity hotspot. However, population estimates for the sensitive zones vary greatly, based on interpretations of the ESZs.
- **The role of big hydroelectric dams, built during an era of rising power demand and deficits, must now be considered afresh** and proposals for new ones dropped.
- **A moratorium on quarrying and mining** in the identified sensitive zones, in Kerala and also other States, is necessary to assess their environmental impact.

Disaster Management

Kerala Floods Highlight India's Poor Dam Management

In News

- This is the worst flood Kerala has witnessed in nearly a century. Back in 1924, a combination of heavy rain and a breached dam triggered deadly floods that claimed 1,000 lives. In 2018, history may have repeated itself.
- Under relentless downpours, poor dam management may have aggravated the floods, raising questions about the role of dams in Kerala and other states.

Dams in India

- In India's quest to control water, dams have always loomed large. India is home to more than 5,000 large dams (over 15 metre high), the third largest number in the world, behind the US and China.
- While only a handful of these dams (28) are built explicitly for flood control, in theory, they all have the properties to minimize flood damage. Dams can manage rivers, storing their water, adjusting flows and redirecting channels.

Role Of Dams In Kerala Floods

- Kerala is home to 53 large dams with a collective capacity of nearly 7 trillion litres. As rain poured and rivers overflowed, these dams should have served as a bulwark. The Idukki and Idamalayar dams (the two biggest) together have stored 21.3% of the Periyar's (Kerala's longest river) annual flow, greatly limiting the flood's damage.
- But for dams to truly tame floods, experts say **dam reservoirs need to be relatively empty before the onset of rains. This was not the case in Kerala.**
- The Idukki dam was already near full capacity by July-end even as rains were relatively weak (below normal levels) during that period. When the downpours arrived in August, the near full-capacity Idukki was forced to release water into already flooded areas. Filling up the reservoirs before the end of the monsoon is an invitation to disaster.
- An important point to note is that more than half of Kerala's dams (57%) are hydroelectric projects operated by the Kerala State Electricity Board; the rest are operated by the irrigation department.
- For both entities, the amount of water to store is motivated by demand for electricity and irrigation, rather than flood control measures. These floods also raise another recurring, unresolved **issue in Indian dam operations: inter-state dam management.**
- Like many dams in India, the Mullaperiyar is located in one state (Kerala), but operated by another (Tamil Nadu). Both state governments have been in constant conflict over the dam's water level—in the current crisis, the Supreme Court had to intervene.
- Beyond dam mismanagement, **some environmentalists are pointing to other man-made issues, such as urban development and quarrying.** In Kerala, much of which sits on the Western Ghats, development activity can increase the chances of landslides—the biggest source of fatalities in floods.
- The 2011 Western Ghats ecology expert panel (the Madhav Gadgil Committee report) had labelled areas of the state as extremely ecologically-sensitive where no developmental activities should take place.

- Data from the state's disaster management control room show that flood casualties and injuries are widespread, but there is some concentration in the few sensitive areas.
- Idukki and Thrissur were marked as sensitive and account for 30% of total casualties and injuries. However, other sensitive areas (Kollam and Wayanad) were less affected although they also received very heavy rains.

Gadgil Committee Insights

- The Gadgil report was sceptical about dams, warning against their construction in the Western Ghats. But most of Gadgil's recommendations were rejected as too impractical, highlighting the tension between dams and development.
- Proponents see dams as critical for Indian farmers' sustenance and renewable energy generation. While the costs and benefits of new dams may be unclear, for existing dams, what is clear is that their management can, and must improve, to limit damages during extreme weather events.

Conclusion

Kerala is merely the latest victim of poor dam management: several of India's floods, such as Bihar in 2016 and Surat in 2006, were exacerbated by poor dam management. In the 2015 Chennai floods, which claimed 295 lives, violation of dam safety norms were a critical factor.

Security

CERT-In Report on Cyber Attacks

Syllabus: Basics of cyber security

Also refer the topic National Information Security Policy and Guidelines (NISPG) from July CA magazine.

In News

- Indian Computer Emergency Response Team (CERT-In) has prepared a report which analysed cyber attacks from April-June 2018.
- The report has been sent to the National Security Council Secretariat (NSCS) and other security agencies.

Key Highlights

- The report said that the maximum number of cyber attacks on official Indian websites are from China, US and Russia.
- It has also flagged the possibility of "malicious actors from Pakistan using German and Canadian cyberspace for intruding into Indian cyberspace and carrying out malicious activities.
- The cyber attacks from China made up 35% of the total number of cyber attacks on official Indian websites, followed by US (17%), Russia (15%), Pakistan (9%), Canada (7%) and Germany (5%).
- The report has identified many of the institutions impacted by the malicious activities, and they have been advised to take appropriate preventive action.

- These include Oil and Natural Gas Corporation (ONGC), National Informatics Centre (NIC), Indian Railway Catering and Tourism Corporation (IRCTC), Railways, Centre for Railway Information Systems (CRIS) and some banks like Punjab National Bank, Oriental Bank of Commerce, State Bank of India and state data centres, particularly in Maharashtra, Madhya Pradesh and Karnataka.

Internet Security Threat Report 2017

- The latest release of Internet Security Threat Report, by security solutions provider *Symantec*, summarizes the state of cyber threats across the world.
- According to report, India emerged as third most vulnerable country in terms of risk of cyber threats, such as malware, spam and ransomware in 2017. India has moved up by one place over previous year.
- India is ranked third among list of countries globally where most of the threats were detected and it is second in terms of targeted attacks. The United States led the pack, followed by China at the second spot.
- India was ranked second globally when it comes to spam and phishing (misleading emails, weblink etc). However, complex cyber attacks -- ransomware and network attacks in India increased in terms of global percentage.
- The report said that India is one of victims of targeted attack because a lot of intellectual property rights are generated here and the criminals may intent to steal them.
- India was also ranked second after the US where the highest number of malwares for mobile phones were detected the by company.

CERT – In

- CERT – In is the national nodal agency for responding to computer security incidents as and when they occur.
- In the recent Information Technology Amendment Act 2008, CERT – In has been designated to serve as the national agency to perform the following functions in the area of cyber security:
 - Collection, analysis and dissemination of information on cyber incidents.
 - Forecast and alerts of cyber security incidents
 - Emergency measures for handling cyber security incidents
 - Coordination of cyber incident response activities
 - Issue guidelines, advisories, vulnerability notes and whitepapers relating to information security practices, procedures, prevention, response and reporting of cyber incidents.
 - Such other functions relating to cyber security as may be prescribed

Also refer the topic National Information Security Policy and Guidelines (NISPG) from July CA magazine.

Benami Transactions (Prohibition) Act

Syllabus: Money-laundering and its prevention

In News

- Special Courts under this act have not yet been set up across the country.
- This has scuttled the prosecution of accused persons in almost 100 confirmed cases instituted under this act.

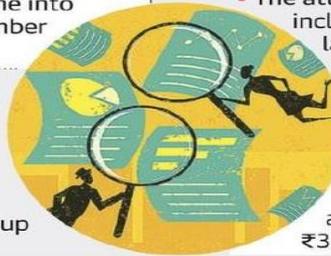
Key Highlights

- The Act provides that the Central government, in consultation with the Chief Justice of the respective High Courts, will establish Special Courts through notification. Such courts are to be constituted to ensure that the trials are conducted “as expeditiously as possible”.
- However, the required Special Courts have not been set up yet. Therefore, despite the fact that investigations in almost 100 cases have been completed by the I-T Department in different States, including confirmation of attachment of properties by the Adjudicating Authority, the prosecution of accused persons has not started.

In the net

- The amended Benami Transactions (Prohibition) Act, 1988, came into force in November 2016

- In all, 24 Benami Prohibition Units of the Income-Tax Department have been set up across India



- The Dept. has so far made attachments in more than 1,600 cases under the Act

- The attached properties include parcels of land, flats, shops, vehicles and bank deposits

- Total on-paper worth of the attached immovable assets is more than ₹3,400 crore

Assets worth more than ₹5,000 crore have been attached by the Income-Tax Department under the law.

About The Act

- Though the Benami Transactions (Prohibition) Act, 1988 has been on the statute book since more than 28 years, the same could not be made operational because of certain inherent defects.
- With a view to providing effective regime for prohibition of benami transactions, the said Act was amended through the Benami Transactions (Prohibition) Amended Act, 2016.
- The Act seeks to: (i) define the benami transactions, (ii) establish adjudicating authorities and an Appellate Tribunal to deal with benami transactions, and (iii) specify the penalty for entering into benami transactions.
- The act defines Benami transactions as transactions where: (i) the transaction is made in a fictitious name, (ii) the owner is not aware of denies knowledge of the ownership of the property, or (iii) the person providing the consideration for the property is not traceable.
- However, certain cases has been exempted from the definition of a benami transaction. These include cases when a property is held by: (i) a member of a Hindu undivided family, and is being held for his or another family member's benefit, and has been provided for or paid off from sources of income of that family; (ii) a person in a fiduciary capacity; (iii) a person in the name of his spouse or child, and the property has been paid for from the person's income
- The act defines benamidar as the person in whose name the benami property is held or transferred, and a beneficial owner as the person for whose benefit the property is being held by the benamidar.

- The act seeks to establish four authorities to conduct inquiries or investigations regarding benami transactions: (i) Initiating Officer, (ii) Approving Authority, (iii) Administrator and (iv) Adjudicating Authority.
- If an Initiating Officer believes that a person is a benamidar, he may issue a notice to that person. The Initiating Officer may hold the property for 90 days from the date of issue of the notice, subject to permission from the Approving Authority.
- At the end of the notice period, the Initiating Officer may pass an order to continue the holding of the property.
- If an order is passed to continue holding the property, the Initiating Officer will refer the case to the Adjudicating Authority. The Adjudicating Authority will examine all documents and evidence relating to the matter and then pass an order on whether or not to hold the property as benami.
- Based on an order to confiscate the benami property, the Administrator will receive and manage the property in a manner and subject to conditions as prescribed.
- It also seeks to establish an Appellate Tribunal to hear appeals against any orders passed by the Adjudicating Authority. Appeals against orders of the Appellate Tribunal will lie to the high court.
- The penalty for entering into benami transactions is rigorous imprisonment of one year up to seven years, and a fine which may extend to 25% of the fair market value of the benami property.
- The act also specifies the penalty for providing false information to be rigorous imprisonment of six months up to five years, and a fine which may extend to 10% of the fair market value of the benami property.

Quad Countries On Ocean Security

In News

- A report on the policy recommendations on Indian Ocean security has been released by four think tanks from the Quad countries.
- This report consists of 20 policy recommendation.

Key Highlights

- The report mentions that Australia, India, Japan and the US should work with partner countries to oppose the establishment of permanent Chinese military bases in the Indian Ocean Region (IOR).
- It said that the Quad nations should work in the IOR to help maintain independent security and economic policies by supporting high-quality alternatives to unilateral Chinese investments and "political alignments with regional objectives".
- One of the suggestions for the US and Japan was also to consider participation in the Asian Infrastructure Investment Bank (AIIB) to encourage high-standards for projects involving China and to build their economic cooperation with others, including Australia and Japan.
- The report also suggests that the Quad countries should cooperate with and support the Indian Ocean Rim Association (IORA), the Indian Ocean Naval Symposium (IONS), the South Asian

Association for Regional Cooperation (SAARC) and other regional framework in the Indian Ocean and South Asia.

- The report urged Australia, India, Japan and the US to enhance sea land defence capabilities in the Indian Ocean and suggested that India, the US and Japan should invite Australia to participate in the currently trilateral maritime exercise.

Quad Group:

- In a significant geostrategic move India, the US, Japan and Australia resurrected their quadrilateral grouping on the sidelines of the Asean summit in Manila.
- The grouping of four countries aims to pursue their common interest in the Indo-Pacific.
- The leaders of the four countries met at Manila in November last year to hold their first talks. In June 2018, senior officials of the Quad countries held their second consultative meeting in Singapore on the sidelines of an Association of Southeast Asian Nations senior officials meeting.
- This grouping gives New Delhi a powerful platform to advance its interests in East Asia, coordinate strategies with powerful friends and add more strength to its Act East initiative.
- India was circumspect about the grouping because it felt that its interests may not get properly represented within the forum. Plus, given the current status of the India-China relationship, New Delhi may not have wanted to rock the boat too much in east Asia either.

Ballistic Missile Interceptor Advanced Area Defence

In News

- India has successfully test-fired its indigenously developed supersonic interceptor missile.
- Developed as part of efforts to have a multi-layer ballistic missile defence system, it is capable of destroying incoming hostile ballistic missiles.

Key Highlights

- The supersonic ballistic interceptor missile dubbed as Advance Air Defence (AAD) was flight tested from Abdul Kalam Island, a part of Integrated Test Range (ITR) off Odisha coast.
- The endo-atmospheric missile showed its capability of intercepting incoming targets at an altitude of 15 to 25 km.
- The interceptor is a 7.5-metre long single stage solid rocket propelled guided missile equipped with a navigation system, a hi-tech computer and an electro-mechanical activator.
- The interceptor missile had its own mobile launcher, secure data link for interception, independent tracking and homing capabilities and sophisticated radars.

India's Ballistic Missile Defence System

- The Indian Defence Research and Development Organisation (DRDO) is developing a two-tier Ballistic Missile Defence (BMD) system that provides a multi-layered shield against ballistic missile attacks.

- The two-tier system is intended to destroy an incoming missile, at a higher altitude, in the exo-atmosphere and if that miscarries, an endo-atmospheric interception will take place.
- It can intercept incoming missiles at exo-atmospheric altitudes of 150km and endo-atmospheric altitudes of 80km.
- The BMD system consists of a Prithvi Air Defence (PAD) missile and an Advanced Air Defence (AAD) Missile for high and low altitude interception.
- The PAD intercepts missiles at altitudes between 50km-80km and the AAD missile destroys them at altitudes of 15km-30km.
- DRDO plans to develop two new ballistic missiles, namely AD-1 and AD-2, in phase 2 of the missile shield development. The AD-1 and AD-2 interceptors can engage intermediate-range ballistic missiles (IRBMs) / intercontinental ballistic missiles (ICBMs).

PAD Ballistic Missile Interceptor

- PAD is a two stage missile based on the Prithvi missile. Also known as Pradyumna, PAD has a maximum interception altitude of 80km.
- The first stage is liquid fuelled and the second stage is solid fuelled.

AAD Ballistic Missile Interceptor:

AAD is a single stage solid rocket propelled guided missile. It can intercept incoming ballistic missile at altitudes of up to 30km.

Swordfish Radar

- Swordfish is a long-range tracking radar developed for the BMD system. It was derived from the Israeli Green Pine long range radar.
- Swordfish guides the exo-atmospheric interceptor missile PAD to engage aerial targets at altitudes over 80km. The radar can detect very small targets within the range of 600km-800km.

Smart Anti Airfield Weapon**In News**

The Defence Research and Development Organisation (DRDO) has successfully tested indigenously developed light weight glide bomb Smart Anti Airfield Weapon (SAAW) dropped from an Indian Air Force (IAF) aircraft. Total of three tests with different release conditions and ranges were conducted at Chandan range near Pokhran in Rajasthan.

Smart Anti Airfield Weapon (SAAW)

- SAAW project is India's first fully indigenous anti-airfield weapon project sanctioned by Government in September 2013. It was indigenously developed by state-run Defence Research and Development Organisation (DRDO) in collaboration with IAF and the Research Centre Imarat (RCI). It will be inducted soon into the Armed Forces.
- SAAW is long-range lightweight high precision-guided anti-airfield weapon. It is 120 kg smart weapon capable of engaging ground targets with high precision up to range of 100 km. It is

designed for deep penetration and is armed with high-explosive warhead, which is usually very difficult to achieve operationally with simple gravity bombs.

- It is meant to deal debilitating damage to ground infrastructure such as runways, taxi ways, aircraft hangars and bunkers among other things. Depending on operational requirements, it can also be used against other ground targets to give Indian forces enhanced area-denial capabilities, like taking out ground infrastructure.
- The guided bomb is considered to be one of the world-class weapons system. It is said to have higher precision and much cheaper compared with missiles. It can be integrated into varied types of multi role fighter jets of IAF such as MiG, Sukhoi Su-30 and ground attack SEPECAT Jaguar. It will enhance capability of IAF to easily hit targets across border without putting pilot and aircraft at risk.

Anti-airfield weapons

They are critical in war-like scenarios, since they help to give debilitating blow to adversarial air forces. These high-explosive warheads are meant to cause maximum damage possible to runways and other key infrastructure, in way that prevents quick repair. If successful, attack using such bombs render airfield useless, grounding all the war planes that are based at that air field.

Vertically Launched Short Range Missile Systems

In News

- Defence Acquisition Council (DAC) has approved procurement of 14 vertically launched Short Range Missile Systems.
- Of these, 10 systems will be indigenously developed and remaining four will be imported. These missile systems will help boost the self-defence capability of ships against anti-ship missiles.
- **DAC is Union Defence Ministry's highest decision making body on capital procurement of Indian Armed Forces (Army, Navy and Air Force). It is chaired by Defence Minister.**

About Vertically Launched Missile Systems (VLS)

- VLS is an advanced system for holding and firing missiles on mobile naval platforms, such as surface ships and submarines.
- Each **vertical launch system consists of a number of cells, which can hold one or more missiles** ready for firing.
- Typically, **each cell can hold number of different types of missiles, allowing ship flexibility to load the best set for any given mission.**

Helina Successfully Flight Tested

In News

- Indigenously developed helicopter launched anti-tank guided missile HELINA has been successfully flight tested from Army helicopter in the ranges of Pokhran. The weapon system has been tested for its full range.

- The missile is guided by an Infrared Imaging Seeker (IIR) operating in the Lock on Before Launch mode. It is one of the most advanced Anti-Tank Weapons in the world.
- The weapon system was integrated with live warhead and has destroyed the targets with high precision. The telemetry and tracking systems captured all the mission events.

Government Announces Regulations for Drones

In News

- The Union Minister of Civil Aviation Shri Suresh Prabhu has announced the Drone Regulations 1.0.
- These regulations will enable the safe, commercial usage of drones starting December 1, 2018.
- Going forward, the Drone Task Force under the chairmanship of the Minister of State Shri Jayant Sinha will provide draft recommendations for Drone Regulations 2.0. These regulations will examine the following issues:
 - Certification of safe and controlled operation of drone hardware and software,
 - Air space management through automated operations linked into overall airspace management framework,
 - Beyond visual-line-of-sight operations,
 - Contribution to establishing global standards,
 - Suggestions for modifications of existing Civil Aviation Requirements (CARs) and/or new CARs.

Key Features of Drone Regulations 1.0

- The drones are classified into five categories based on their maximum take-off weight: nano (up to 250 gm), micro (251 gm to two kg), mini (2 kg to 25 kg), small (25 kg to 150 kg) and large (greater than 150 kg).
- All Remotely Piloted Aircraft System (RPAS) except nano and those owned by NTRO, ARC and CIA are to be registered and issued with Unique Identification Number (UIN).
- Unmanned Aircraft Operator Permit (UAOP) shall be required for RPA operators except for nano RPAS operating below 50 ft., micro RPAS operating below 200 ft., and those owned by NTRO, ARC and Central Intelligence Agencies.
- The mandatory equipment required for operation of RPAS except nano category are (a) GNSS (GPS), (b) Return-To-Home (RTH), (c) Anti-collision light, (d) ID-Plate, (e) Flight controller with flight data logging capability, and (f) RF ID and SIM/ No-Permission No Take off (NPNT).
- As of now, RPAS to operate within visual line of sight (VLoS), during day time only, and upto maximum 400 ft. altitude.
- For flying in controlled Airspace, filing of flight plan and obtaining Air Defence Clearance (ADC) /Flight Information Centre (FIC) number shall be necessary.
- Minimum manufacturing standards and training requirements of Remote Pilots of small and above categories of RPAS have been specified in the regulation.

- The regulation defines “No Drone Zones” around airports; near international border, Vijay Chowk in Delhi; State Secretariat Complex in State Capitals, strategic locations/vital and military installations.
- Operations of RPAS to be enabled through Digital Sky Platform. The RPAS operations will be based on NPNT (No Permission, No Take off).
- There will be different colour zones visible to the applicant while applying in the digital sky platform, viz, Red Zone: flying not permitted, Yellow Zone (controlled airspace): permission required before flying, and Green Zone (uncontrolled airspace): automatic permission.

Defence India Startup Challenge

In News

- With a view to leverage defence-related startups and strengthen their collaboration with the defence forces — the Indian Army, Navy, and Air Force — Government has launched the Defence India Startup Challenge.
- A joint initiative of the Atal Innovation Mission, the Department of Industrial Policy and Promotion (DIPP), and the Defence Innovation Organisation (a ministry of defence initiative), the Defence India Startup Challenge is looking for startups to innovate in 11 categories.
- The 11 Defence India Startup Challenges are: 1. Individual protection system with built-in sensors 2. See-through armour 3. Carbon Fibre Winding (CFW) 4. Active Protection System (APS) 5. Secure hardware-based offline encrypt or device for graded security 6. Development of 4G/LTE-based tactical local area network 7. Development of advanced technology based desalination system (water purification) and bilge oily water separation system 8. Artificial intelligence in logistics and supply chain management 9. Remotely piloted airborne vehicles 10. Laser weaponry 11. Unmanned surface and underwater vehicles.
- A support framework kit named SPARK — Support for Prototype and Research Kickstart (in Defence) — has also been launched to enable startups to participate in the challenge.
- Under this framework, the Defence India Startup Challenge will call for proposals to address the specific technology needs of the Indian Defence Establishment.
- The incentive will be distributed through the Defence Innovation Organisation (DIO), a non-profit joint venture company, formed between public sector units (PSUs) Hindustan Aeronautics Limited (HAL) and Bharat Electronics Limited (BEL).