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CURRENT AFFAIRS APRIL 2017

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UPSC Civil Services Prelims papers on VisionIAS Open Test Platform

1. POLITY AND CONSTITUTION

1.1. MOTOR VEHICLES (AMENDMENT) BILL, 2017

Why in news?

Motor Vehicle (Amendment) Bill was passed by Lok Sabha in April 2017.

Key provisions of 2017 bill

- Third party insurance The 2017 Bill removes the cap on liability for third party insurance as provided for in the 2016 amendment bill
- Scheme for providing interim relief to claimants seeking compensation under third party insurance The 2017 Bill removes the provisions related to penalties under the scheme.
- Funds for hit and run accidents A motor vehicle accident fund has been constituted for the treatment of injured person, compensation to the person hurt or to the representatives of person died in hit and run case. The requirement of crediting the Fund with a cess or tax in 2016 bill has been removed.
- Guidelines for aggregators State governments were to issue licenses to aggregators in conformity with guidelines issued by the central government which was made optional in 2017 bill.
- Agency for road safety The 2017 Bill provides for a National Road Safety Board (as recommended by Sundar committee) to be notified by central government.

The 2016 Bill defines aggregators as digital intermediaries or market places which can be used by passengers to connect with a driver for transportation purposes (taxi services).

- Road design and engineering The 2017 Bill provides that any contractor or consultant responsible for the
 design, construction, or maintenance of the safety standards of roads would need to adhere to specified
 standards by state/central government and would be held responsible through penalty for road accidents
 instead of bad drivers.
- **Hassle-free and quick services**: the Bill proposes increasing validity of driving licenses, getting learning licenses online and omitting the requirement of minimum qualification to get a driving license issued.
- Stricter penalties: for offences such as drunken driving, dangerous driving, non-adherence to safety norms by drivers (like wearing helmets etc.). The bill has proposed three-year jail term for parents of minors who are caught driving with 10-fold increase in compensation to victim.
- Adhaar: The number is required to apply for driving license.

Benefits of the new bill

- Integrated approach Liability is being fixed at every stage making everyone equally responsible to ensure road safety
- Digitization It will make it difficult to obtain bogus driving licenses as it will be linked with Adhaar and eregistration of vehicles will discourage theft and encourage portability in terms of transfer of vehicle registration from one state to another.
- **Rule bound** When implemented, obtaining a driving license without a test would be impossible for anyone, including politicians.
- **Road safety** Specifically targeting traffic offenders, stringent penal provisions and identifying priority areas would improve road safety.

Challenges

- Police force need to be made professional and accountable if we want to reduce traffic fatalities, which stood at 1,46,133 in 2015.
- State governments must prepare for an early roll-out of administrative reforms prescribed in the amended law, such as issuing learner's licences online
- Research shows that imposing stricter penalties tends to reduce the level of enforcement of road rules.
 According to IIT Delhi's Road Safety in India report of 2015, the deterrent effect of law depends on the
 severity and swiftness of penalties as well as the perception that the possibility of being caught for violations
 is high.

1.2. NATIONAL COMMISSION FOR BACKWARD CLASSES

Why in news?

- The Lok Sabha passed a **constitutional amendment** which renames NCBC as **National Commission for Socially and Educationally Backward Classes** in the Constitution.
- An accompanying bill, The National Commission for Backward Classes Bill 2017, was also passed to repeal the 1993 law.

Features of the bill

- Constitutional status: Constitution of a Commission under Article 338B for socially and educationally backward classes.
- One list instead of two: It stipulates only one central list for OBC, same as that for SC and ST. There would be no parallel existence of central and state OBC lists.
- Parliament to decide on inclusion/exclusion- Under Article 342A 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.
- **Development:** The bill has recognised the developmental needs in addition to reservations. It will hear the grievances of socially and educationally backward classes, a function which has been discharged so far by the National Commission for Scheduled Castes under the article 338.
- **Definition of socially and educationally backward classes:** Insertion of Clause (26C) under Article 366 to define "socially and educationally backward classes" as such backward classes deemed so under Article 342A.

Benefits of amendment

- **Transparency**: It is difficult to get an arbitrary decision passed in the parliament than through an executive order.
- **Political opportunism**: The exposure of state and central governments to pressures of non-backward communities to force their way into the list would reduce as opposition cannot easily blame the government and garner brownie points during elections.
- **Constitutional authority**: Giving it a constitutional authority will ensure it has more power in terms of hearing complaints from OBC members like SC/ST commissions

Issues

- Composition: In the light of the SC judgement on Mandal case to have NCBC as an expert body, NCBC act 1993 provided that the chairman should be a former judge and member secretary should be a former secretary level officer of the government of India, one member should be a social scientist, and two persons with special knowlsedge of the socially backward classes. This feature of expert body is **not provided** for in the composition of the NCBC Bill.
- **Federal structure:** It reduces the power of state government to handle reservation demands brewing up in their states, thus, affecting federal structure. However, the amendment still needs to be passed by the Rajya Sabha with 2/3rd majority and ratified by >50% state governments. It will ensure the agreement of states on the issue.
- Recommendations of new NCBC still not binding.
- **Revison of list:** Article 338B (5) is also silent on the mandate of SC on periodic revision of the SEdBC list in consultation with the NCBC.
- Amending Article 366: There is a possibility of definition of OBCs going beyond its current confinement to social and educational criteria.
- On a similar footing as SC/STs: The amendment has brought both BCs and SC/STs in the same league in terms of discrimination, exclusion and violence which lacks logic and historical justification.

Challenges

- Whether the states will agree to this bill is an open question. The states will have to be taken into confidence and shown that no injustice will be done to backward classes in any way.
- The deviations from the Apex court directions on the Mandal case judgement need to be corrected.

1.3. RIGHT TO RECALL (RTR)

Recall is basically a process whereby the electorate has the power to remove the elected officials before the expiry of their usual term.

Table 1: Provisions for RTR at Municipal Level

Why to go for RTR?

- **Enhance accountability** At present, there is no recourse for the electorate if they are unhappy with their elected representative.
- International experience It has been in place in one of Canada's provinces. In US, some states allow for recall on specific grounds such as misconduct or malfeasance.
- Logic and justice Like election, people should also have the power to remove the representatives when they engage in misdeeds or fail to fulfill their duties.
- **Decrease role of Money power** It may limit campaign spending, as morally skewed candidates would weigh the risk of recall.

Issues with RTR	at local	level
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The experience with RTR in Madhya Pradesh (where it is operational for the past 16 years) revealed functional problems with the reform like-

- The grounds for recall were arbitrary.
- The signature verification procedure by the district collector was unsatisfactory.
- New voters who participated in recall elections had not voted in the general elections.

In MP, since 2000, 33 recall elections at municipal level were held, where incumbent was recalled 17 instances.

Possible challenges with RTR at state and national level

- **De-stabilise** it may destabilise the country as everywhere there is any discontent, people will start recalling
- **Political tool** It could be misused to put out an unintended political message, especially in places such as Kashmir and North-Eastern states where people already feel alienated.
- **Election fatigue-** by recalling/rejecting the candidates and having another election may cause election fatigue & lower voter turnout.

Way forward

- RTR can be introduced but with adequate safeguards. For ex- a proposal for RTR would be initiated only after two years of election etc.
- There is a need to evolve a unique model suitable to our needs, by learning from the rich experience at the local level, which does not threaten the political stability here.

1.4. BYPOLL CANCELLATION IN TAMIL NADU

Why in News?

• The election commission using Article 324 cancelled the by-election to RK Nagar constituency in Chennai, which fell vacant after death of CM Jayalalitha.

Why cancelled?

 Large scale bribing of voters to the tune of 89 crores which made it impossible to conduct free and fair elections.

in India Madhya Pradesh, Section 24 of the Madhya Pradesh Municipal Corporation Act, 1956 and Section 47 of the Madhya Pradesh Municipalities Act, 19611 Section 47 (recall of President) Chhattisgarh, of the Chhattisgarh Nagar Palika Act, 1961² Rajasthan, 2011 Section 53 of the Rajasthan Municipalities Act, 20093 was amended in 2011 as the Rajasthan Municipalities (Amendment) Bill, 20114 Bihar, 2007 Section 17 of Bihar Municipal Act, 20075

Source: Author's compilation based on data from state election commissions.

• Flouting of election laws by innovative forms of inducement such as milk tokens, mobile phone recharge coupons, newspaper subscriptions, cash transfer to no-frills bank accounts and payments to mobile wallets etc.

Way forward

- Making bribery a cognizable offence as proposed in the law ministry draft proposal. It will allow for arrests and a police probe.
- **Top leadership and managers** appointed by parties to oversee election campaigns should be made accountable for these illegal activities.
- **Disqualifying a candidate**, the possibility of which was raised in EC order, for a period up to 6 years on exceeding election expenses by either directly incurring or authorising them in the campaign and for 3 years for not giving a correct account of the expenses.
- Recent proposal by EC for RPA amendment to disqualify candidates for 5 years, who are listed in charge sheets for bribing candidates. However, it goes against principles of natural justice that a person is innocent until proven guilty.

1.5. PROMOTION OF HINDI LANGUAGE

A panel, set up under the Official Languages Act, had submitted its recommendations to the President in 2011. The President has given "in principle" approval to some of these recommendation recently -

- The HRD Ministry needs to make credible efforts for making Hindi a compulsory subject and Hindi should be compulsorily taught in all CBSE schools and KVs until Class X.
- Those holding top government posts should give their speeches/statements in Hindi, especially those who can read and speak in Hindi.
- Equal honorarium for guest speakers at Hindi workshops organised by ministries at par with speakers at other workshops
- Hindi translators and co-announcers of Akashvani be given salary at par with translators of foreign languages
- Filling vacancies of the Hindi officers in various departments,
- Introducing the option of writing answers and giving interviews in Hindi in higher education institutions of non-Hindi speaking states
- Railways and Air India Tickets to also have information in Hindi.

Why opposition to this order?

- It may sow the seeds for another anti-Hindi agitation.
- Critics argue that the people in the north don't even make an effort to learn any south Indian language, then why should south be forced to study a particular language.
- A nation need not have a single language, For ex- even small nations such as Belgium and Switzerland have three and four respectively.

1.6. NATIONAL FLAG AND ANTHEM

Why in news?

- The Centre in response to SC's notice, asserted that respect for the national anthem and flag is "a matter of national pride and non-negotiable".
- SC issued notice in response to PIL by Shyam Narayan Chouksey which wants Parliament to define 'respect' for the national anthem and flag under Article 51A (a) of the Constitution or Supreme Court to issue a mandamus to the government to frame guidelines.

Basis for promoting Hindi language

Article 351: It shall be the duty of the Union to promote the spread of the Hindi language, to develop it so that it may serve as a medium of expression for all the elements of the composite culture of India and to secure its enrichment by assimilating without interfering with its genius, the forms, style and expressions used in Hindustani and in the other languages of India specified in the Eighth Schedule.

Article 120 and 210 regarding language to be used in parliament and state legislature respectively gives the option of transacting business in Hindi as well

Article 343 gives power to parliament to decide by law, the languages to be used for official work.

Article 344 provides for constitution of a parliamentary committee every 10 years to recommend to the President regarding progressive use of the Hindi language for the official purposes of the Union and restrictions on the use of English

Earlier in same case, in December 2016, SC directed cinema halls to play national anthem at the start of movies.

Legislations and Rules regarding National Symbols

- **Article 51A** of the Constitution makes it a fundamental duty for every citizen of India to abide by the Constitution and respect its ideals and institutions, the national flag and the national anthem.
- The Prevention of Insult to National Honour Act, 1971 deals with cases of insults to the Constitution, the national flag and the national anthem with penalty. However, no section of this Act or Indian Panel Code (IPC), 1860 makes it mandatory for a citizen to stand up when the national anthem is being played.
- Flag Code of India, 2002, a consolidation of executive instructions by GoI regarding observing behavior that does not disrespect the National Flag.

1.7. SC JUDGEMENT ON INSULT TO RELIGION UNDER 295A OF IPC

Why in News?

 Recently SC quashed criminal case against MS Dhoni and magazine editor, filed under section 295A of IPC, for his depiction as Lord Vishnu on a magazine cover in 2013.

Key features of judgement

- Section 295A requires action to be deliberate with intention to outrage religious feelings without just cause or excuse.
- The section is applicable to only aggravated forms of insult to religion that is meant for disrupting public order. This was already clarified in a 1957 judgement.
- It also warned lower courts to stop taking reflexive cognizance of cases of little importance related to offending of religious/caste/cultural sentiments of any group.

Section 295A

Whoever, with deliberate and malicious intention of outraging the religious feelings of any class of citizens of India (by words, either spoken or written, or by signs or by visible representations or otherwise), insults or attempts to insult the religion or the religious beliefs of that class, shall be punished with imprisonment of three years, or with fine, or with both.

Impact of judgement

- It would reduce the **misuse**, owing to the subjectivity of section 295A, as the judgement excludes its applicability on casual observations not driven by any bad intention.
- It **clarifies the ambit** of this section, which would help protecting individuals and public figures from political activists and overzealous administrative authorities.
- It re-establishes balance between Article 19 and Article 25.

1.8. NEED FOR ANTI-TORTURE LEGISLATION

Why in news?

 Supreme court recently told government to consider passing a comprehensive law which defines and punishes for "torture".

Why such a law is required?

- It would be easier to secure extraditions as excuse of accused being subjected to torture would fade away.
- It would prevent endangering of fundamental right to life and dignity under Article 21 of constitution and strengthen rule of law.
- It would prevent abuse of custodial torture which is used as an instrument for "human degradation" by state authorities.
- NHRC strongly favors for adoption of such a law.

Key provision of Prevention of torture bill 2010

- The bill penalizes the guilty public servant with imprisonment upto 10 years.
- It defines torture as "grievous hurt", or danger to life, limb and health.
- Complaints against torture have to be made within 6 months.
- Sanction of appropriate government is required before court can entertain a complaint.
- Issues: definition of torture is narrow as it doesn't include mental pain, intention of accused; 6 months' time limit dilutes existing laws; no independent authority for investigation; no provision for compensation to victims.

Related steps that government should take

- India should ratify the **UN convention against torture** which it had signed in 1997. It defines torture as a criminal offence.
- Steps should be taken to implement **Prevention of Torture Bill 2010** which was passed in 2010 by Lok Sabha and recommended by a Select Committee of Rajya Sabha.
- Establishing an **independent** mechanism for timely and effective **investigation** of cases of custodial torture and for the rehabilitation and compensation for victims as investigation by police itself would be biased.

Arguments against such law

- IPC and CrPC are sufficient to handle such cases (However, they do not specifically address torture).
- Police are required to **report** cases of **custodial deaths to NHRC**. (However, the cases of torture not leading to death are unreported. Also, judicial enquiry was conducted in only one-third of reported cases in 2015).

1.9. HIGHWAY LIQUOR BAN

Why in news?

 Supreme Court ban on sale of liquor within 500 meters of National and State Highways came into effect from April 1, 2017.

Background

- A PIL was filed by NGO Arrive Safe in SC which said nearly 1.42 lakh people were killed in road accidents every year mainly owing to drunk driving.
- The judgement cited the recommendations of an apex road safety body, advisories issued by the centre to the States and the statistics on the high rate of road accidents for the basis of the ban.
- The order was applicable to liquor shops as well as pubs, bars and restaurants serving alcohol.
- States were also barred from granting fresh licences for liquor sale along the highways.
- The ban extended to highways passing through a city or town as well.

Implications of the Ban

- It may cause job losses and hit real estate prices.
- Subsequently, many states have denotified State highways in order to dodge the order.
- States claim that it would lead to loss of revenue and tourism.

Road Classification in India

- The **Indian Road Congress** classifies Indian Roads into 5 categories:
 - √ National Highways
 - √ State Highways
 - ✓ Major District Roads
 - ✓ Other District Roads
 - √ Village Roads
- Indian Road Congress is a semi-official body setup by government in 1934 on the recommendations of the Jaykar Committee.
- It is the apex body in the country for road engineers and regularly updates the requirements such a width, sight distance etc.
- The Nagpur Plan, 1943 defined and classified the Indian roads into four.
- Until 2010, National Highways were numbered according to the **National Highways Act of 1956.**
- Post 2010, east-west highways have odd numbers while north-south highways have even numbers.
- Only the central government has the authority to classify any stretch of road as National Highway.
- The National Highways Authority of India, created as per the National Highways Authority Act, 1988 is responsible for the upkeep of National Highways.
- The PWD departments of respective states are responsible to look after state highways.

Is the Ban Worth?

- According to the statistics released by Road Transport and Driving Ministry, only 3.3% of the road accidents were under the influence of alcohol or drugs.
- The rest have been attributed to over-speeding and overloaded vehicles.
- Also, the occurrence of road accidents in areas not controlled by traffic police is found to be higher.

Next Best Alternative

- Banning liquor sale along highways is not a sustainable solution. People's attitude towards traffic rules and safety must be changed in order to address the issue.
- Motor Vehicles Bill, 2016 has brought more stringent norms and penalties for traffic offenders.

1.10. DRAFT RTI RULES, 2017

Why in news?

- The **Department of Personnel and Training (DoPT)** has released the **Draft RTI rules 2017** for implementing the **Right to Information Act, 2005**.
- The new rules have been open for public consultation and will replace the existing RTI Rules 2012 if approved.

Pros

- Provisions for dealing with non-compliance of orders and directives of the Central Information Commission (CIC) to deal with increasing no. of non-compliance cases. These were missing in the 2012 rules.
- Non-compliance cases of public interest shall be put before larger benches of the CIC.
- Procedure for filing complaints has been clearly defined.

Cons

- **Separate Format for complains and appeals** This implies that an appellant/complainant cannot merge an appeal and complaint into one making the entire procedure lengthier.
- Withdrawal of an appeal if an appellant makes a written request It is nothing less than a deadly blow to the RTI. Activists can be pressurised to withdrawn their appeals thereby putting their life in danger.
- It is up to the CIC to decide whether an appeal is fit for trial This is being seen as a draconian measure. Every appeal must be given a hearing.
- Complainant is required to submit an advance copy of all documents and written submissions to the public authority prior to submitting the complaint to CIC This is standard court procedure but totally uncalled for in the case of CIC.
- **Decision on first appeals** The draft rules opens up the possibility of decision of first appeals by "any other person competent" who is not designated as the first appellate authority. This is a contravention of Section 19(1) of the RTI Act.
- While the Draft Rules introduce time limits that complainants must observe for filing complaints, there are no time limits for ensuring that notice of a hearing in an appeal or complaint reaches the citizen well in advance.
- Posting matters of non-compliance before other Commissioner(s): CIC has been empowered whether to post a matter of non-compliance before a bench other than which decided the initial matter or before a larger bench. Hearing by a bench is not required in case of administrative tribunals like CIC.

Suggestions

- There should be provisions for an applicant to combine an appeal and complaint in a single petition.
- It should not be made mandatory on part of the appellant/complainant to serve the copy of the appeal to the respondent. It should be served by registry in case it is not served by the appellant/complainant.
- Format on decision on first appeals must be charted out
- A time limit of 15 days must be set for the CIC to furnish the notice of a hearing an appeal /complaint in advance.
- A time limit for disposal of appeals must also be set.

1.11. ROLE OF GOVERNOR: INTERSTATE COUNCIL

Why in news?

 The Standing Committee of the Inter-State Council met after a gap of 12 years to discuss the discretionary powers of the governor during government formation among other issues.

Interstate Council

- Article 263 of the Constitution provides for establishment of Inter-State Council for coordination between states and union government.
- It is **not a permanent constitutional body** but it can be established 'at any time' if it appears to the President that the public interests would be served by the establishment of such a council.
- The inter-state council was established by Presidential order dated 28 May, 1990.
- The council shall consist of the PM as the Chairman, CMs of all states and UTs and six union cabinet minister nominated by PM.

Background

- **Politicization of the post of governor** happens when active governors act according to personal aspirations of furthering their office in the Union or joining active politics after their term as a governor is over.
- Also, frequent transfers of the governors merely make the post an agent of the Union.

Major Takeaways of the Meeting

- The recommendations of Puncchi Commission were considered. According to which, Governor should follow guidelines in the appointment of a chief minister by sticking to a "clear order of preference."
- As many as 19 states gave their suggestions on eligibility criteria of governor with Bihar calling for abolition of the post.

Recommendations of the Puncchi Commission on Role of Governor

- The Commission has given a set of criteria for the qualification of the Governor and has called for suitable **amendments to Article 157**:
 - ✓ The Governor should, in the opinion of the President, be an **eminent person**;
 - The dovernor should, in the opinion of the President, be an eniment pe
 - ✓ The Governor must be a person from outside the concerned State;
 - ✓ The Governor should be a **detached person** and not too intimately connected with the local politics of the State. Accordingly, the Governor must not have participated in active politics at the Centre or State or local level for at least a couple of years before his appointment.
- The tenure of office of the Governor must be fixed, say for a **period of 5 years**;
- The phrase "during the pleasure of the President" may be deleted from Article 156 of the Constitution.
- A provision may be made for the **impeachment of the Governor** by the State Legislature on the same lines as the impeachment of the President by the Parliament.
- Governors should not be eligible for any further appointment or office of profit under the Union or State Governments except a second term as Governor, or election as Vice-President or President of India.
- Also, after quitting or laying down his office, the Governor shall not return to active partisan politics.
- As for the appointment of Chief Minister, the Commission has recommended:
 - ✓ The party or combination of parties with widest support in the Legislative Assembly should be called upon to form the Government.
 - ✓ If there is a pre-poll alliance or coalition, it should be treated as one political party and if such coalition obtains a majority, the leader of such coalition shall be called by the Governor to form the Government.
 - ✓ In case no party or pre-poll coalition has a clear majority, the Governor should select the CM in the order of preference indicated below:
 - a) The group of parties which had pre-poll alliance commanding the largest number.
 - b) The largest single party staking a claim to form the government with the support of others.
 - c) A post-electoral coalition with all partners joining the government.
 - d) A post-electoral alliance with some parties joining the government and the remaining supporting from outside.

1.12. PARLIAMENTARY COMMITTEES

Why in news?

- Since the inception of the 16th Lok Sabha, only 29% bills have been scrutinised by parliamentary committees as compared to 60% and 70% of bills being examined in 14th and 15th Lok Sabhas respectively.
- This raises concern over the diminishing importance of parliamentary committees and whether proper deliberations are taking place before the passage of various bills.

Rameshwar Prasad vs. Union of India

- It is considered to be a landmark case w.r.t power of the governor under Article 356 to declare failure of constitutional machinery in a state.
- It was alleged that in 2005, Governor of Bihar, Buta Singh had recommended dissolution of the Assembly on the basis of his subjective satisfaction that some parties were trying to obtain majority through unethical means.
- The Supreme Court ruled that if a political party with the support of other parties or MLAs staked claim to form a government and satisfied the Governor about its majority to form a stable government, he cannot override claim because of his subjective assessment that majority was formed through tainted means.

Importance of Parliamentary Committees

- Parliamentary committees are of two types: **Standing and Ad-hoc committees**. While the former perform specialized jobs, the latter are constituted to perform specific tasks and cease to exist on its completion.
- Parliamentary committees investigate issues and bills proposed so that the Parliament can be well informed before making a decision of national importance.
- The committees can make recommendations and amendments to the bill. These are not binding on the Parliament.
- Bills not scrutinized by the parliamentary committee may face constitutional challenges.

Recommendations

- Detailed and proper deliberations need to be undertaken before passage of each bill.
- In case of shortage of time, bill needs to be scrutinised by a parliamentary committee.
- Alternatively, India can also adopt the British model where every bill is scrutinised by a committee.

1.13. NATIONAL LOK ADALAT

Why in News?

- Around 6.6 lakhs cases were resolved at National Lok Adalat held across the country at all levels from taluk level to high court level, according to the National Legal

 The National Legal Services Authority
- The Lok Adalat resolved both **pre-litigation and pending cases**.

About Lok Adalat

Service Authority (NALSA).

 Lok Adalats meaning People's Court is a system of alternative dispute resolution. The **National Legal Services Authority** (NALSA) has been constituted under the Legal Services Authorities Act.

The principal objective of NALSA is to provide free and competent legal services to the weaker sections of the society.

- Unlike court where a judgement is passed, Lok Adalats resolve disputes through mutual settlement of parties.
- The system of Lok Adalats were developed in India through the **Legal Services Authorities Act, 1987** which is in accordance with the constitutional mandate in **Article 39-A** of the Constitution of India.
- Lok Adalats can be held by **State Authority, District Authority, Supreme Court Legal Services Committee,**High Court Local Services Committee, or Taluk Legal Services Committee.
- The Lok Adalats can deal with all Civil Cases, Matrimonial Disputes, Land Disputes, Partition/Property Disputes, Labour Disputes etc., and compoundable criminal Cases.

Significance

- Lok Adalats can help alleviate the judiciary of the burden of pending cases.
- It can provide speedy settlement without any trial.

1.14. PRE-CENSORSHIP OF FILMS OR NOT?

Why in news?

- **Supreme Court** has sought a reply from the Centre and Central Board of Film Certification (CBFC) on the PIL filed by cine veteran Amol Palekar regarding pre-censorship of films.
- The SC has also asked the CBFC to implement the recommendations of the Shyam Benegal Committee.

Background

- Film censorship provisions are governed by the Cinematograph Act, 1952 and the Cinematograph (Certification) Rules, 1983.
- The five-judge bench of the Supreme Court ruled in the **K.A. Abbas vs. Union of India, 1970** that cinematographic films in theatres were the most influential media of mass communication affecting the social mind and, therefore, the exercise of censorship under the Cinematograph Act was valid and necessary.
- The central government issued **guidelines in 1991** for the regulatory structure in accordance to which CBFC discharges its functions.
- Shyam Benegal Committee, setup by I&B Ministry, submitted its report in April 2016.

Recommendations of the Shyam Benegal Committee

- The current system of suggesting modifications should be stopped and only **certification** should be done.
- It noted that the 1991 guidelines were not under the ambit of CBFC and it drafted a new set of guidelines:
 - ✓ Artistic expression and creative freedom of filmmakers protected through objective parameters
 - ✓ Audiences are empowered to make informed viewing decisions,
 - ✓ The process of certification is responsive to social change.
- The guidelines also state that the applicant must state the certification he seeks and his target audience.
- It recommended a new "Adult with Caution" category and two classifications under the Universal under Adult Supervision, or U/A rating- U/A 12+ and U/A 15+.
- CBFC should confine itself to:
 - o submission of an annual report to the central government, containing an analytical study of the trends in the film industry, to be tabled in Parliament each year,
 - o reviewing the work of regional officers and the Regional and Central Advisory Panels,
 - o periodically review guidelines laid down for certification of films, etc.

Issues Raised

- The PIL filed by Amol Palekar alleges that pre-censorship of films which results in cuts, deletions and denial of certification is a violation of freedom of speech and expression of the artists as well as the audience.
- Pre-censorship of films is also regarded as irrelevant in era of uncensored internet and social media.
- Documentaries subject to pre-censorship is violative of fundamental rights under Article 14, Article 19(1)(a), and Article 21 of Constitution. The broadcast of news and real incidents are not subject to pre-censorship.
- The Indian constitution has provided for reasonable restrictions under Article 19(2) "in the interest of the sovereignty and integrity of India, the security of the state, friendly relations with foreign states, public order, decency or morality, or in relation to contempt of court, defamation or incitement of offence"
- Whether these restrictions are to be invoked in the case of pre-censorship of films is a debatable matter.

1.15. REAL ESTATE (DEVELOPMENT AND REGULATION) ACT, 2016

Why in news?

- The Real Estate (Development and Regulation) Act, 2016 that was passed by the parliament in March 2016 comes into effect fully from May, 2017.
- Only 13 states and UTs have notified rules for regulation of real estate sector on the lines of this model law, raising concern over implementation.

Provisions of the Act

- Mandatory registration with real estate regulatory authorities (RERA) of projects of at least 500 square meter area, or those comprising eight flats.
- The regulator's website should have the necessary **public disclosure** of details related to each project.
- Project developers will now be required to deposit at least 70% of their funds, including land cost, in a separate escrow account to meet the cost of construction.
- A provision for imprisonment up to 3 years in case of promoters and 1 year in case of agents and buyers for violation of orders of appellate tribunals.
- A clear definition of carpet area and buyers will be charged for the carpet area and not super built-up area.
- Appellate tribunals will adjudicate cases and regulatory authorities will dispose complaints within 60 days.
- Regulatory authorities can also register projects to be developed beyond urban areas, promote a singlewindow system of clearances, and grade projects and promoters besides ensuring digitization of land records. They will also have to draft regulations within three months of formation.
- It will **regulate both commercial and residential projects** and set up state-level regulatory authorities to monitor real estate activity.
- The builders would also be responsible for fixing structural defects for five years after transferring the property to a buyer.
- All the real estate developers and agents are required to register with their respective state authorities before 30 July, 2017.

Significance

- The provisions of the Act will bring in accountability and transparency to the sector.
- It will attract **foreign investment** to the sector.
- It will help the consumer from being cheated.

1.16. DECLINING CORRUPTION IN PUBLIC SERVICES

Why in news?

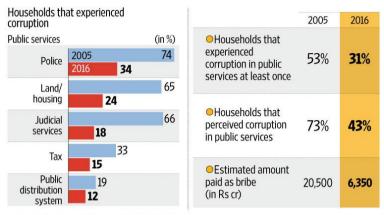
 According to CMS- India Corruption Study 2017, corruption cases in public services have significantly declined since 2005 (in comparison to 2016).

About the Study

- The study covered around 3,000 households from over 200 rural and urban clusters of 20 states.
- Ten common public services were covered in the study including public distribution system, electricity, health, school education, water supply, banking, police, judicial services, housing and tax services.

GRAFT CHECK

While 73% of households perceived an increase in corruption level in public services in 2005, only 43% reported an increase in 2016



Source: Centre for Media Studies-India Corruption Study-2017

Significance

- The report reflects the improvement in governance.
- The report also highlights how the primary reasons for paying bribes has been consistent showing that ground level issues need to addressed in order to fight corruption.

1.17. VVPAT

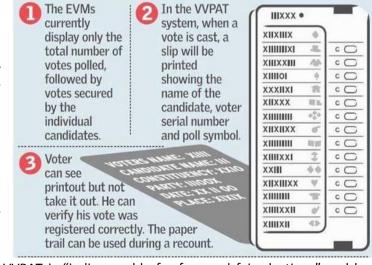
Why in news?

- The Centre gave clearance for allocation of Rs 3,174 crore to the **Election Commission** to buy 16.15 lakh **Voter Verifiable Paper Audit Trails (VVPATs)** units for use in the 2019 Lok Sabha polls.
- This comes at a time when controversy regarding EVMs (Electronic Voting Machines) being rigged during the recent state assembly elections of 2017.
 VOTER VERIFIABLE PAPER AUDIT TRAIL (VVPAT)

Background

- EVMs are electronic devices used in places ballot paper to record votes.
- EVMs were first used in Kerala Assembly Elections in 1982 while it was first used for Lok Sabha elections in 1992.
- EVMS brought simplification in the voting procedure. It has resulted in drastic decline in electoral fraud which includes rigging and stuffing of ballot boxes.
- VVPATS have been used in few constituencies in order to corroborate the EVMs with a paper trail.
- In Subramanian Swamy vs Election

 Commission, 2013, Supreme Court held that VVPAT is "indispensable for free and fair elections" and had directed the EC to introduce VVPAT in a phased manner.



Advantages

The addition of the VVPAT machine to the process will allow for cross-checking of EVM results through a paper audit, completing another layer of accountability to the indigenously produced machines.

Right to Internet Access

Human Right.

In 2015, UN declared Internet Access as a

In March 2017, Kerala became the first

It serves as an additional barrier to changing or destroying votes.

1.18. RIGHT TO INTERNET ACCESS: SUPREME COURT

Why in news?

The Supreme Court in a judgement has said that the right to access Internet comes under fundamental right of expression and cannot be curtailed at any cost.

Judgement

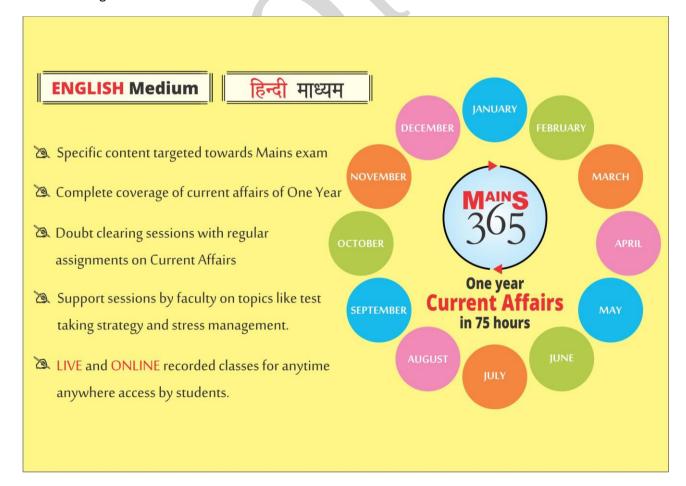
state to declare Internet as a basic right for every citizen. It was passed during hearing of a PIL filed by Sabu Mathew George against search engines (Yahoo, Google and Microsoft) for strict adherence to section 22 of the Pre-

conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) (PCPNDT) Act of 1994.

- The court said that the Right of Internet Access is permissible, until and unless it doesn't 'encroaches into the boundary of illegality'.
- The court said that if someone searches for medical tourism in India, he/she can do so unless it violates the restrictions under section 22 of the PCPNDT Act.

Current Status

- The three Internet search engines have given assurances to the Supreme Court that they would neither advertise nor sponsor advertisements violative of the PNPCDT Act.
- The search giants are also required to have 'in-house' experts to spot illegal content and pull them down.
- Nodal Officers have been appointed at the State level to keep tabs on the Net for offensive material contravening Section 22 of the Act.



2. INTERNATIONAL/INDIA AND WORLD

2.1. INDIA-BANGLADESH

Why in news?

Prime minister of Bangladesh Sheikh Hasina paid official visit to India. India and Bangladesh signed 22 agreements on various domains like Defence, Nuclear energy, Cyber Security etc.

Following are the list of agreements:

Defence related agreements

India and Bangladesh signed an umbrella agreement on defence cooperation. It would enhance military cooperation with Bangladesh, where China wields considerable influence. Around 80% of Bangladesh's military equipment is brought from China, including strategic purchases like submarines.

- ✓ MoU on Defence Cooperation Framework.
- ✓ MoU between Defence Colleges of both countries.
- ✓ MoU for extending Defence Line of Credit of USD 500 million. It will allow Bangladesh to buy \$500 million worth of Indian defence equipment, and has been planned to chip away dependence on China.

Agreement on civil nuclear energy

The framework agreement on civil nuclear energy will provide for setting up nuclear reactors in Bangladesh by India.

- ✓ Agreement in peaceful uses of nuclear energy.
- ✓ Arrangement for the exchange of technical information and co-operation in the Regulation of Nuclear Safety and Radiation Protection.
- ✓ Inter-Agency agreement on cooperation regarding Nuclear Power Plant Projects in Bangladesh.

Teesta River water sharing issue

The long pending Teesta river agreement was not signed. On the issue, Indian PM reiterated government's strong resolve to conclude the water sharing treaty. The central government is not willing to go ahead with the agreement without taking West Bengal CM on board.

About Teesta

Teesta River originates from the Pahunri (or Teesta Kangse) glacier in Sikkim, flows through the northern parts of West Bengal before entering Bangladesh. It merges with the Brahmaputra River (or Jamuna in Bangladesh). The river is a major source of irrigation to the paddy growing greater Rangpur region of Bangladesh. Bangladesh and India share 54 rivers but none evokes as much passion in Bangladesh as Teesta.

- Teesta is the fourth largest transboundary river shared between India and Bangladesh, after the Ganges, Brahmaputra and the Meghna (GBM) river system.
- In 1983, an ad hoc arrangement on sharing water was made, according to which Bangladesh got 36% and India 39% of the waters, while the remaining 25% remained unallocated. The transient agreement could not be implemented.
- Bangladesh has sought an equitable distribution of Teesta waters, on the lines of Ganga Water Treaty of 1996.
- In 2011 India and Bangladesh finalized an arrangement, by which India would get 42.5% and Bangladesh 37.5% while remaining 20% would flow unhindered in order to maintain a minimum water flow of the river. This agreement was not signed due to opposition from chief minister of West Bengal.

Other MoUs

- Cooperation in the peaceful uses of outer space.
- Extending the 3rd Line of Credit (LoC)
 - ✓ India announced a new line of concessional credit of \$4.5 billion for implementation of development projects in Bangladesh.
- Information Technology and Electronics.
- Cooperation in the area of Cyber Security.
- Establishing Border Haats across border.
- Bilateral Judicial Sector Cooperation.
- cooperation in the Field of Mass Media.
- Agreement for the regulation of Motor Vehicle Passenger Traffic along the Khulna-Kolkata route.
- development of Fairway from Sirajganj to Daikhowa and Ashuganj to Zakiganj on Indo-Bangladesh Protocol Route.
- Financing Agreement for the Construction of 36 Community Clinics in Bangladesh.

Importance of the Teesta agreement

The success of the deal on the Teesta is considered to be a political necessity for both governments.

- The deal will help New Delhi get more political leverage, which, it thinks, is necessary to check the rising influence of an extra regional power China in the Bay of Bengal region.
- India's perceived refusal to give Bangladesh its share of the river waters and deny that country's rights has fuelled a lot of **anti-India sentiments in Bangladesh.** India is being accused of being a regional bully.
- For Hasina, the deal will support her chances to retain power in the 2018 general elections in Bangladesh by projecting her as a leader who can secure her country's interests and not a 'pawn' in the hands of India.
- The anger in Bangladesh against India has led many influential sections of the people the Bangladesh Nationalist Party (BNP) and a large section of the powerful bureaucracy, military and civil society -to call for deepening ties with China.
- BNP has been inimical to India's interests and its ally, the Jamaat-e-Islami, has been vociferously anti-India.

2.2. INDIA-TURKEY

Why in news?

Turkish President Recep Tayyip Erdogan paid official visit to India. This was Erdogan's first visit to India as the Turkish President.

Highlights of the visit

India and Turkey signed 3 agreements after delegation-level talks headed by PM Modi and Turkish President.

- An agreement was signed on a cultural exchange programme for the years 2017-2020.
- MoU was signed between the Foreign Services Institute of India and the Diplomacy Academy of Turkey.
- Another MoU was signed on cooperation in the area of information and communication technologies.
- The two countries have agreed to increase bilateral trade from the present \$6.5 billion to \$10 billion by 2020. Both sides also agreed on cooperation in the fields of IT, pharmaceuticals, health and tourism.

Importance of visit

- As Turkey deals with a messy neighbourhood in the Middle East, Erdogan has a desire to find new partners like India that can boost Turkey's economic prospects and lend its foreign policy greater depth.
- For India, Turkey is an important regional player that must be factored into India's current recalibration of its Middle East policy.
- India hopes that sustained contact will refresh the relationship in a way that reflects shared concerns and is not hyphenated with ties with Pakistan as India has been able to do with the UAE and Saudi Arabia.

Critical Issues with Turkey

India and Turkey have some problems that keep overwhelming the perception of their bilateral relations.

Kashmir issue

- Turkey President advocated "multilateral dialogue" to settle the Kashmir question.
- ✓ India drew the red line that **Kashmir is a "bilateral" issue between India and Pakistan** and that it sees the dispute through the prism of "cross-border and state-sponsored terrorism" perpetrated by Pakistan.

Pakistan-Turkey relations

- ✓ Pakistan is projected as a country of Islamic leadership that gives it popular support among Turks.
- ✓ The Turkish establishment's uncritical embrace of Pakistan has been constant, irrespective of who was in power the secular army or the current Islamist leadership.

Terrorism

✓ Erdogan asserted that he stood in full solidarity with India against all forms of terrorism. While he specifically condemned the Naxal attack at Sukma, he made no reference to cross-border terror attacks.

NSG membership

✓ Turkey is a member of NSG. Turkey has been maintaining that the NSG should come out with a system to consider the entry of countries that are not signatory to the Nuclear Non-Proliferation Treaty (NPT).

✓ Turkey in favour of both India and Pakistan being included in the Nuclear Suppliers Group (NSG).

• UN Security Council membership

✓ Turkish President's comments on supporting India's bid for the UN Security Council membership came with the rider on other countries being included.

Bilateral relations

India-Turkey ties date back centuries: Mughal rulers and the Sultans of the Ottoman Empire exchanged diplomatic missions. The poet Rumi and the Sufi movement there found easy synergy with the Bhakti and Sufi movements here. In the 20th century India's freedom fighters supported the Turkish independence movement.

- The bilateral trade volume between the two countries is about \$6.5 billion, but it is more in favour of India.
- Turkish companies have pumped in about USD 212 million whereas Indian investment in Turkey reads nearly USD 100 million.

2.3. INDIA-CYPRUS

Mr. Nicos Anastasiades, President of the Republic of Cyprus paid a state visit to India from April 25-29, 2017.

Highlights of the visit

India and Cyprus signed four agreements, including on air services, merchant shipping, agriculture, etc.

Importance of Cyprus for India

India and Cyprus share historical ties. India has always supported Cyprus in its reunification efforts. In turn, Cyprus has always supported India in every international forum and on the Kashmir issue.

India's entry into the Nuclear Suppliers Group (NSG) and UNSC membership

- ✓ Cyprus is member of the 48-member NSG. Cyprus President reaffirmed his country supports India's bid.
- ✓ Cyprus also supports India in its bid to enter the UN Security Council as a permanent member.

Relation with EU

- ✓ Cyprus shares excellent ties with European Union and neighbours like Greece, Egypt and Israel, can play a role in furthering India's interests.
- ✓ Cyprus also wants to help India to facilitate the Free Trade Agreement with the European Union.

Trade and Investment

- ✓ Cyprus is the eighth largest investor to India with cumulative FDI of over \$8.5 billion. However, it was considered as a tax haven to route investments and India had blacklisted it as a non-cooperative country.
- ✓ India and Cyprus had in November, 2016 signed a revised treaty for the avoidance of Double Taxation and the Prevention of Fiscal evasion.
- ✓ Since then, India has also removed the tag of notified jurisdictional area or blacklist of Cyprus.
- ✓ Cyprus can act as a gateway for Indian companies wanting to enter the European markets.

About Cyprus

- It is an island country in the Eastern Mediterranean and the third largest and third most populous island in the Mediterranean.
- It has been divided since 1974 when Turkey invaded the north in response to a military coup on the island which was backed by the Athens government.
- The island was effectively partitioned with the northern third inhabited by Turkish
 Cypriots and the southern two-thirds by Greek Cypriots.
- President Nicos Anastasiades has said that India can help Cyprus in its quest for reunification as it has close ties with Turkey.



2.4. INDIA-ARMENIA

Why in news?

Vice President paid official visit to Armenia, celebrating the 25th anniversary of establishment of diplomatic relations between India and Armenia.

- Armenia came into existence after the disintegration of the Soviet Union in 1991. However, Armenia is no stranger in India as a very historic Armenian church was built in Kolkata and the city boasts of an Armenian street and cemetery too.
- India's ITEC scholarship is very popular in Armenia and remains a key pillar of bilateral relations.

Highlights of the visit

India and Armenia signed 3 agreements - on peaceful uses of outer space, cooperation in youth matters and cultural cooperation.

Vice President visited the Tsitsernakaberd Memorial to pay tribute to Armenian Genocide victims. 1.5 million Armenians were killed during the rule of Turkey's Ottoman Empire in 1915.



2.5. INDIA-POLAND

Why in news?

Vice President paid official visit to Poland.

Highlights of the visit

- India and Poland signed an agreement on the exchange of IT in the agriculture sector.
- Poland assured India of its support in NSG membership and a permanent seat in the UN Security Council.

Bilateral relations

- Poland is India's largest economic partner in Central Europe. Bilateral trade has grown 25% in last one year.
- Indian investments in Poland amount to USD 3 billion and Polish investments are of 600 million USD.
- Poland supported India's membership in Missile Technology Control Regime (MTCR).
- India finds several Polish technologies of great relevance in its national Development Programs particularly in the areas of food processing, coal mining, green & renewable energy as well as in education.

2.6. INDIA-AUSTRALIA

Why in news?

Australian PM Malcolm Turnbull paid a state visit to India.

Bilateral Relations

Trade and investment

- ✓ Indian investment in Australia was AU\$ 10.9 billion in 2014, and Australian investment in India was AU\$9.8 billion.
- ✓ After hitting a peak of \$18 billion in FY' 12, India-Australia trade had fallen and remained stagnant at the level of \$12-13 billion between FY' 14 and FY' 16.

Highlights of the visit

India and Australia inked 6 pacts

- Combatting International Terrorism and Transnational Organized Crime
- Cooperation in Civil Aviation Security
- Environment, Climate and Wildlife.
- Cooperation in Sports.
- Implementation arrangement between ISRO and Geoscience Australia on Cooperation in Earth Observation and Satellite Navigation.

Comprehensive Economic Cooperation Agreement (CECA)

- In a bid to expedite the implementation of Comprehensive Economic Cooperation Agreement (CECA) for boosting trade and investment ties, India and Australia have decided to soon hold the next round of negotiations on it.
- Negotiations began in May 2011 on the proposed India-Australia Comprehensive Economic Cooperation Agreement (CECA) aimed at opening up bilateral investment as well as trade in goods and services. So far nine rounds of talks have been held with the last one being in September 2015.

Major obstacles in CEPA

- India has been reluctant to agree to Australia's demands to drastically reduce/eliminate duties on wine, dairy, pharmaceuticals, fresh fruits and meat.
- Australia has not taken a final call on India's demands to eliminate duties on textiles, automobile
 components and fresh fruits as well as ensure more market access including easier mobility to a larger
 number of high-skilled professionals in the services sector.

• India- Australia nuclear deal

- ✓ India and Australia signed the civil nuclear deal in September 2014.
- ✓ Australian parliament had cleared legislation for the supply of uranium to India in 2016 and now "commercial negotiations" for it are going on.
- ✓ Australia has about 40 per cent of the world's uranium reserves and exports nearly 7,000 tonnes of the yellow cake annually.
- ✓ While there is interest in Australian companies to be part of India's nuclear market, there are concerns in that country over safety regulations in India.

Security

- ✓ India and Australia have a long history of shared security interests, both within and beyond the Indo-Pacific region.
- ✓ India and Australia both border the Indian Ocean and have a shared interest in the maintenance of freedom of navigation and trade.

2.7. INDIA-EU

Why in news?

European Union foreign policy Chief Federica Mogherini paid official visit to India.

Highlights of the visit

• EU and India resolved to step up counter-terror cooperation, besides agreeing to expand engagement in several areas such as maritime security, trade, energy and environment.

• Bilateral Investment Pacts:

- ✓ India's bilateral investment pacts with several European countries are expiring and citing this, the EU has been pushing for moving ahead with the FTA, known as the EU-India Broad-based Trade and Investment Agreement (BTIA).
- ✓ EU has also been pressing India to extend by six months, expiring investment pacts, saying absence of the treaties could adversely impact the trade ties and FTA talks.
- ✓ India wants to re-negotiate those pacts on the basis of the new draft text of BIT.
- ✓ The most contentious issue in the model BIT is the Investor-State Dispute Settlement Mechanism as it allows companies to seek international arbitration only when all domestic options have been exhausted.
- ✓ The removal of taxation from the purview of BITs has also come in for criticism from foreign partners.

• EU-India Broad-based Trade and Investment Agreement (BTIA)

- ✓ Launched in June 2007, negotiations have witnessed many hurdles as both the sides have major differences on crucial issues. The BTIA talks have been stalled since May 2013.
- ✓ The two sides are yet to iron out issues related to tariff and movement of professionals.
- ✓ Besides demanding significant duty cuts in automobiles, the EU wants tax reduction in wines, spirits and dairy products, and a strong intellectual property regime.
- ✓ On the other hand, India is asking the EU to grant it 'data secure nation' status.
- ✓ The matter is crucial, as it will have a bearing on Indian IT companies wanting to have market access.

2.8. INDIA-CHINA

Why in news?

China has for the first time announced "standardised" official names for six places in Arunachal Pradesh.

- China's Ministry of Civil Affairs announced on April 14 that it had standardised in **Chinese characters, Tibetan and Roman alphabet** the names of six places in 'South Tibet', as it calls 'Arunachal Pradesh'
- The official names of the six places using the Roman alphabet are Wo'gyainling, Mila Ri, Qoidêngarbo Ri, Mainguka, Bümo La and Namkapub Ri.

India's response

- India rejected this move. It asserted that assigning invented names to the towns of your neighbour does not make illegal territorial claims legal.
- Beijing's move is being seen as an escalation of tensions by China that has been angered by the government's decision to allow the Dalai Lama to visit the Tawang monastery.

2.9. INDIA-PAKISTAN

Why in news?

Kulbhushan Jadhav, who Pakistan claims is an Indian spy and RAW agent, was found guilty at a court-martial and awarded death sentence.

- He was allegedly arrested in the Chaman area of Balochistan on the Pak-Afghan border on March 3, 2016.
- India denied that he had any links to its government and said that he was running a business in the Iranian port city of Chabahar after a "premature retirement" from the Navy.
- India believes that he was kidnapped from Iran and his subsequent presence in Pakistan has never been explained credibly.

India's response

India and called the proceedings against Mr Jadhav "farcical".

- The fact that despite specific provisions in the Vienna Convention on Consular Relations, India was denied access to Mr. Jadhav only confirms that Pakistan does not want the truth to be revealed about the place and manner of arrest.
- International human rights agencies too have criticised them. He must be given a fair retrial, preferably in a civil court and with recourse to appeal.
- India warned Pakistan that executing its national by a secret military court would tantamount to "premeditated murder".

The Vienna Convention on Consular Relations of 1963

It is an international treaty that defines a framework for consular relations between independent states.

- A consul normally operates out of an embassy in another country, and performs two functions: (1) protecting in the host country the interests of their countrymen, and (2) furthering the commercial and economic relations between the two states.
- Pakistan and India have accepted the Vienna Convention of 1963. However, Pakistani authorities repeatedly refused Indian consular access to Kulbhushan Jadhav.

Way forward

This could lead to a rapid escalation in bilateral tensions that the region can ill afford. The case requires a proactive three-pronged response from India:

- Impressing on Pakistan that the death sentence must not be carried out,
- Explaining to the international community the flawed trial process.
 - ✓ India has moved to the International Court of Justice (ICJ) for an immediate injunction against the death sentence.
 - ✓ India can seek a "review and re-consideration" of the conviction and death sentence in the light of the rights set forth by Article 36.
 - ✓ A pending case in the ICJ would deter Pakistan from execution .
- Sending interlocutors to open backchannels for diplomacy for Mr. Jadhav's safe return home.

2.10. INDIA-USA

Why in news?

U.S. National Security Adviser Lt. General (retired) H.R. McMaster paid official visit to India.

Highlights of the visit

- NSA McMaster emphasised the importance of the US-India strategic relationship and reaffirmed India's designation as a Major Defence Partner.
- The two sides discussed a range of bilateral and regional issues, including their shared interest in increasing defence and counter-terrorism cooperation.
- Prime Minister Modi held talks with him on Afghanistan, the West Asian region and the Korean peninsula.
- Mr. McMaster's visit to the Af-Pak region and India is also remarkable as in the past few years U.S. officials have avoided visiting Islamabad and New Delhi on the same trip, in keeping with a **policy of de-hyphenating relations between the two**.

2.11. TURKEY REFERENDUM

Why in news?

A **constitutional referendum** was held in Turkey in April on whether to approve proposed amendments to the Turkish constitution.

• The draft constitution that significantly increases the powers of Turkish President has been approved by a narrow margin of just over 51% votes.

Important Changes in the constitution

Before Referendum Constitution	After Referendum Constitution
Parliamentary system governance	Presidential system of governance
President holds symbolic powers. Prime minister and	The President of the Republic is the head of the State.
government are the active executor	The executive power shall be exercised by him. He
	appoints and dismisses vice-presidents and ministers.
President not aligned with any political party and	President can be member of political party
cannot be any a party leader	
Elections for the Grand National Assembly of Turkey	Elections for National Assembly and presidency shall be
shall be held every four years.	held every five years and on the same day.

2.12. GLOBAL CONFERENCE ON AFGHANISTAN

Why in news?

Russia hosted peace conference on Afghanistan on 15th April to discuss ways of ending conflict in Afghanistan and establish durable peace.

- Moscow invited Iran, Pakistan, India, China and five Central Asian States. US is not part of the conference
- It would be the third conference on Afghanistan arranged in Moscow in the past five months.

Russia's role in Afghanistan

Russia's pursuit of "great power" status and its growing concern over terrorism and narcotic drugs have pushed it to re-enter the Afghan conflict.

- Russia now believes the **Taliban is a "legitimate stakeholder"** in the conflict that must be engaged, and is the "lesser evil" than **Islamic State/Da'esh forces in Afghanistan.**
- Moscow established links with the **Taliban** to coordinate efforts against Daesh in Afghanistan.
- Unlike India and Afghanistan, which believe Pakistan is part of the problem, and voiced their concerns at the Moscow conference, Russia and China believe it is part of the solution.
- Russian policymakers have extended their hand to the Taliban for the following four strategic reasons.

- ✓ First, by maintaining ties with the Taliban, Russia reminds the West not to ignore Moscow's interests in discussions of the Afghanistan agenda at regional and international platforms.
- ✓ Second, by supporting the Taliban, Russia intends to strengthen barriers to US interests in the region.
- ✓ Third, Russia feels a threat from the Islamic State (ISIS) in Afghanistan and in the Middle East, particularly its expansion to the north of Afghanistan into Central Asia and Russia.
- ✓ Fourth, Afghan opium is another headache for Moscow. Afghanistan supplies 90 percent of the world's illicit opiates, which are mostly being produced in territory controlled by the Taliban.

India's stand in Afghan Peace process

India has been a major development partner of Afghanistan and has been favoring an Afghan-led and Afghanowned peace process for the war-ravaged country.

- India favors cooperation among countries of the region for peace, stability and development in Afghanistan.
- India took a hard line, opposing the dominant view from Russia, China and Pakistan to involve the Taliban in reconciliation efforts.
- Russia's support to the Taliban will have numerous implications for the future of Afghanistan. It will weaken the central government in Kabul, which may result in the situation like Syria.

USA skepticism about Russian role in Afghanistan

- US believed that Russia's intentions are plain. In systematically exaggerating the Islamic State's presence in Afghanistan, the aim is to weaken the U.S. and discredit successful U.S.-Afghan counterterrorism efforts.
- American military officials suspect Russia's peace diplomacy is aimed at undermining NATO and have accused Moscow of arming the Taliban.

2.13. THE 457 WORKING VISA CHANGES

Why in news?

Australia abolished a visa programme used by over 95,000 temporary foreign workers, majority of them Indians, to tackle the growing unemployment in the country.

- The programme, known as 457 visa, allows businesses to employ foreign workers for a period up to four years in skilled jobs where there is a shortage of Australian workers.
- The 457 visa programme is the route many Indians use to find employment in Australia.
- According to a new rule, Australian visa will be provided in two variants: a short-term two-year entry allowance and a medium term 4-year entry allowance.
 - ✓ Under the new reforms, the applicants must be **permanent residents for at least four years** three years longer than at present and must be committed **to embrace "Australian values".**
 - ✓ Prospective citizens will have to pass a standalone English test.

Analysis

- Indian government has warned that the move could have an impact on negotiations on the free trade agreement Comprehensive Economic Cooperation Agreements (CECA) between both countries.
- New visa regime shows the rise of protectionist measures in developed world to curb the movement of skilled labour. New Zealand has also tightened its visa conditions for skilled migrants.
- Earlier this month, the UK banned the issue of a short-term 'Tier 2' visa, which was primarily being used by Indian IT service companies to send engineers to work on projects in the UK.
- Analysts believe the protectionist moves by the big nations will have a big impact on the margins of Indian IT service companies, which have already been narrowing.

2.14. EURASIAN ECONOMIC UNION (EAEU)

India is set to formalise a free trade agreement with the Eurasian Economic Union.

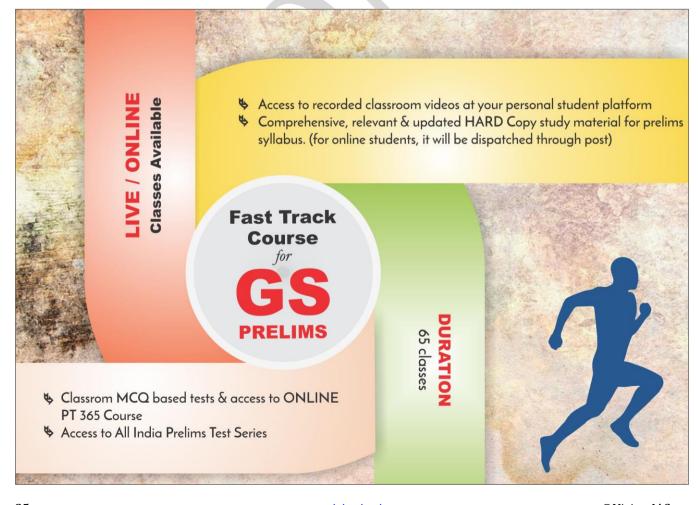
• The joint statement on the FTA is likely to be issued during Prime Minister Narendra Modi's meeting with Russian President Vladimir Putin at St. Petersburg on June 1.

Significance of FTA for India

- Trade between India and the five Eurasian countries stands at about \$11 billion.
- The FTA is expected to open up a huge market with a trade potential of \$37 to 62 billion.
- The Eurasian market could open up new export opportunities for Kerala in medical tourism, IT and IT-enabled services, besides traditional sectors like spices, marine products, coir and rubber.

About Eurasian Economic Union

- The Eurasian Economic Union comprises Russia, Belarus, Armenia, Kazakhstan and Kyrgyzstan.
- The Eurasian Economic Union has an integrated single market of 183 million people and a gross domestic product of over 4 trillion U.S. dollars (PPP).



3. ECONOMY

3.1 AGRICULTURAL MARKETING

3.1.1. DRAFT MODEL LAW ON AGRICULTURAL MARKETING

Why in news?

- Centre has unveiled a draft model law, Agricultural Produce and Livestock Marketing (Promotion and Facilitating) Act (APLM), 2017 which will replace the Agriculture Produce Markets Committee Act, 2003.
- Agriculture is a 'state' subject, so it depends on states whether to adopt the provisions partially or in totality.

Objective

- To create a single agri-market where with single licence one can trade agri-produce as well as livestock.
- Better price realization for farmers.
- Doubling farmer's income by 2022.

Provisions of the Draft Model Act

- Intra-state trade made available by paying a single fee.
- Traders will be able to sell perishables like fruits and vegetables outside existing mandis (wholesale markets).
- The draft law proposes to cap market fees and commission charges payable by a farmer after bringing produce to a wholesale market.
- Cap on levy of market fees is proposed at 2% (of sale price) for fruits and vegetables and 1% for food grains.
- Warehouses and cold storages are to act as regulated markets
- All **regulatory powers will lie with the office of the director of agricultural marketing** in the state, who will also issue licenses to traders and new private players. As of now, this power lies with the mandis managed by a board of directors.
- Farmers can directly sell their produce to bulk buyers.

Significance

• It will lead to a barrier-free unified agricultural market with one trader licence (interstate trading licence).

- It will allow private players to set up wholesale markets thereby breaking the monopoly of traditional 'mandis'.
- Increased competition among buyers will lead to better farm-gate prices.

AN OVERHAUL FOR AGRICULTURAL MARKETS

- Centre's plan: Freeing up trade in agriculture produce by giving farmers a wider choice of markets beyond the local mandi
- Current scenario: Over-regulation by states and local trader cartels limit wholesale prices received by farmers. With the centre pushing them, many states are now amending their marketing laws governing agricultural produce.
- Implications: As more states join the reform agenda, farmers can expect prices that are remunerative and transparent
- The new law will also reduce wastage of farm produce.
- Promotion of electronic trading.

3.1.2. NITI AAYOG AGRICULTURE MARKETING REFORMS

Why in News?

• Department of Agriculture cooperation and Farmer welfare (DAC&FW) in consultation with NITI Aayog has identified a set of marketing reforms that are needed in the APMC Acts of the States.

Reforms

- The reforms identified include:
 - o 3 mandatory reforms provision for e-trading, unified trading license and a single point levy of market fee, which would enable the integration of the State markets onto e-NAM.
 - Set up markets in the private sector (private mandis) and direct marketing to reduce the intermediaries between producer and buyer.

- States advised to relax the felling and transit rules for trees grown by farmers on their own lands to encourage agroforestry for supplementary income.
- Single license for traders in whole state.
- Liberalize land lease market Niti
 Aayog has already brought up a model
 Land leasing law for the same.
- Take fruits and vegetables out of APMC Act.
- Delink provisions of compulsory requirement of space for registration of traders.

(For more details on APMC Basics, please refer to the VISION IAS February 2017 Current Affairs module)



3.2. FARM LOAN WAIVER

Why in News?

• Uttar Pradesh government recently waived off agricultural loan of worth about Rs 36000 crores for those farmers which had a loan less than Rs 1 lakh.

Issues Involved

- RBI governor has cautioned the farm loan waiver to be a populist measure and economically inefficient.
- Farmers face vagaries of monsoon and poor agricultural policies. Therefore some believe waiver to be a necessary evil for the farmers to keep them motivated towards agricultural occupation.

Reasons

• Farmers have been facing many challenges like erratic monsoon, deteriorating water table and soil quality, rising input costs etc. These reasons coupled with some more was the factor involved in the farm loan waiver.

Challenges

- Madras High Court has recently suggested farm loan waivers to the Tamil Nadu government, and many states, like Maharashtra, Karnataka and Kerala, that have experienced drought recently, could follow suit.
- Waivers are one major cause of **Non-Performing Assets** and crowding out of the infrastructure and private financing.
- This could also **lead to States violating their FRBM targets** making them **fiscally irresponsible** and creating losses to the State exchequer.
- Farm loan wavier can prove to become a moral hazard in the future as farmers in expectation of the waiver might not pay the loan at the first instance.

Solutions of agricultural distress

- A **dedicated institutional credit mechanism** is needed for the farmers to avoid dependence on informal costlier credit.
- To improve agricultural resilience against the vagaries of monsoon, there is a need for
 - Changing the cropping patterns according to the agro-climatic zones. Eg. Pulses in water deficient areas
 - o Improving irrigation infrastructure by emphasizing on new technologies like sprinkler and drip irrigation as is being focused in Pradhan Mantri Krishi Sinchayee Yojana.
- The government also needs to improve its storage infrastructure to reduce post harvest losses.
- An adequate procurement and MSP mechanism for different crops and in different locations.

- To protect the farmers from any post harvest financial losses, there should be a greater coverage of the insurance, especially for the small and marginal farmers.
- To maximize farmer's profit
 - o Agricultural marketing and real time price discovery is needed.
 - Allied sectors like animal husbandry should be promoted along with traditional agriculture to create a buffer to fall upon.

3.3. PAPER SECTOR

Why in News?

• The price of the raw materials for paper making industry like waste paper, recycled paper has been rising in the domestic and the international markets.

Challenges in the paper industry

- Lack of Raw materials like wood fibre mostly because of a less prevalent culture of agroforestry in India.
- Shift in consumption patterns due to technology Computers and telecommunications have displaced the use of paper since 1980s. Eg. Storage devices
- India is still dependent on imports of waste paper and recycled paper because India's recovery rates of paper wastes is significantly low as compared to developed countries.
- Although India has cost advantage in labour and fuels, lower labour productivity and variation in coal quality reduces it.
- The paper and pulp industry is also considered to be highly polluting and is therefore put into the 'Red category' of the recent classification of the industries in India in terms of carbon footprint.
- Cheaper imports by countries like China because of stronger currencies and better technologies.
- Withdrawal of subsidy for pulping in the USA. This caused the raw material to become expensive.

Background

- The location of the paper and the pulp industry is based on parameters like -
 - Availability of raw material (large forest area)
 - Transport (nearby rivers)
 - Large amounts of energy
 - o Cheap labour.
 - Availability of enough market.

Therefore most of the paper and the pulp industry of India is concentrated near the Western ghats, Eastern Ghats, Tarai areas at Himalayan foothills, North-East areas etc.

- The mills use a variety of raw material like wood/bamboo (24%), waste paper/recycled fibre (65%) and agro-residues like bagasse, wheat straw and rice husk (11%).
- **Key drivers of this industry's growth** are urbanization and changing lifestyles, impetus on education, growth in organized retail and demand of better quality packaging like medicinal packaging.

Significance of paper industry

- Paper industry is a provider a large number of employment (about 0.5-1 million).
- Paper industry is **used for packaging purposes** of products ranging from FMCGs to pharmaceuticals.
- Apart from packaging, paper industry also produces paper for writing and printing purposes.

Government initiatives to promote paper industry

- In 1997, paper industry was de-licensed and 100% FDI was allowed in it.
- 26% FDI in print media is allowed, which is the main end use sector for paper industry.
- Government has setup the Central Pulp and Paper Research Institute for research purposes.

National Agroforestry Policy 2014

- Setup institutional mechanism at national level to promote Agroforestry.
- Simple regulatory mechanisms for harvesting and transport of the agroforestry produce (presently regulations are imposed by multiple agencies).
- Accessible raw materials and credit to farmers.
- Develop a sound database and information system and invest in research.

• The Government has also come out with a **National forest policy** and **National Agroforestry Policy (2014)** that can help in fulfilling shortage of raw materials.

Way Forward

- Paper industry should try to improve their pulping and paper machine technology instead of adding large capacities.
- Technology would also help in increasing the recovery of waste paper which is very low currently.
- Latest technology would also help them to conform to green emission norms.

3.4. POWERTEX INDIA

Why in News?

• It is a comprehensive scheme for Powerloom Sector Development that was launched recently by Union Textile Ministry for three years.

Background

 Second five year plan encouraged the expansion of weaving capacity and therefore by 1980s and 1990s, many handlooms were converted to powerlooms.

Powerloom

Looms operated with the aid of electric power for manufacturing of cloth are called as **Powerlooms** whereas the looms operated without aid of power are **Handlooms**.

- Powerlooms are spread over most states except a few in eastern India which still relies more on handlooms.
- Fastest growth of powerlooms occurred only in 3 states Maharastra (largest Powerloom industry of India),
 Tamil Nadu and Gujarat.

Provision of the scheme

- It aims to boost common infrastructure and modernization of the powerloom sector.
- It has **nine major components** like Group Workshed Scheme (GWS), Yarn Bank Scheme, Common Facility Centre (CFC), Tex Venture Capital Fund etc. **Two new schemes have been added** recently -
 - Pradhan Mantri Credit Scheme for powerloom weavers
 - Solar energy scheme for powerloom
- Minimum number of looms needed for group workshed scheme has been brought down to 24 from 48.
- Some existing schemes such as yarn bank and in-situ upgradation of plain powerlooms have been modified.

Other Government Schemes on powerloom

- Government of India has launched various subsidy schemes for powerloom sector such as
 - Amended Technology Up-gradation Fund Scheme (A-TUFS).
 - In-situ Up-gradation Scheme for Plain Powerlooms for up-gradation of technology.
 - Group Workshed Scheme for giving assistance for constructing workshed for powerloom sector
 - Integrated Scheme for Powerloom Sector Development (ISPSD) for providing extending assistance for marketing support in the form of Buyer Seller Meets

Challenges related to powerloom sector

- Marketing: dependent on the middlemen who eat into the profits.
- Finance: lack of access of financial institutions giving dedicated funding towards this sector
- Raw Material: not available in adequate quantity at reasonable prices and prices fluctuate.
- **Technology:** Most powerlooms are old and obsolete. Hence, productivity and quality of product suffers.
- Lack of entrepreneurial skills.

3.5. DEVELOPMENTS IN RAILWAY SECTOR

3.5.1. RAILWAY DEVELOPMENT AUTHORITY

Why in News?

• Government has approved to setup a Rail Development Authority (RDA) based in Delhi, with an initial corpus of Rs. 50 crore, through an executive order.

Need

- Central governments have been fixing the fares mostly based on political considerations. This has led to instances of cross subsidization and losses to freight sector.
- This initiative has been emphasised by various committees like:
 - o Rakesh Mohan expert group (2001).
 - National Transport Development Policy Committee (NTDPC) (2014).
 - Bibek Debroy Committee on Mobilisation of Resources for Major Railway Projects and Restructuring of Railway Ministry (2015).

Functions of the authority

- Its primary functions will be:
 - o To **recommend tariff** commensurate with costs.
 - o Frame principles for social service obligation
 - Suggest policies for private investment
 - o Fix efficiency standards and resolve disputes related to any concession agreements.
 - o Collect, analyze and disseminate information and statistics concerning the rail sector.
- It will act within the parameters of the Railway Act 1989 and make recommendations to the Railway Ministry on passenger and freight fares.
- It will be an independent body. The provisions of a separate budget, and the appointment and removal process would help maintain its independence.

Composition of the authority

- It will have a **chairman and three members** with a fixed term of five years each.
- The Central government will appoint the chairman and members by **choosing from a panel of names** recommended by the search and selection committee consisting of
 - Cabinet secretary (Chairman)
 - o Railway board chairman
 - Department of personnel and training secretary
 - Chairman of any regulatory body of the Central government nominated by the cabinet secretary.
- They would be removed by the government on grounds like insolvency, conviction, misbehaviour, etc.

Significance

- It will recommend passenger fares and set performance standards for rail operations thus creating a **level** playing policy for private sector participation.
- The move will improve the services offered to passengers and will enhance transparency and accountability
- It would also promote competition and encourage market development.

Challenge

- Its recommendations **would not be binding**. It would only give its recommendations to the Railway Ministry which will be the final authority to take decisions. Therefore, **this move may remain tokenistic**.
- It is a statutory body as it is made through an executive order. This reduces its legitimacy and makes it prone to political interference.

Way forward

• The government has taken a welcome step by setting a RDA to help improve the competitiveness of the rail sector. But this may become futile if the authority is not made independent, autonomous and statutory.

3.5.2. DRAFT TOURISM POLICY OF INDIAN RAILWAYS

Why in News?

- Government of India has recently come out with a draft tourism policy to transform the business of railways.
- Passenger segment of the Railways is in losses and this could help boost the revenues of this segment.

Policy Features

- Introduce dedicated train services for domestic and international tourists.
- **Involve several service providers**, including Indian Railway Catering and Tourism Corporation (IRCTC), to manage services like hotel accommodation and sightseeing for tourists.

IRCTC

- Auction dedicated tourist coaches to tour operators.
- Reviving steam trains to be operated in hill stations and improve finances of hill rail by PPP.
- 'Bharat Darshan Trains' for the masses with affordable rates will be launched.
- To promote religious tourism:
 - Astha Circuit Trains: To be operated by the Railways at its own expense.
- Its functions include:

• It is a Mini Ratna Category 1 PSE.

- ✓ Upgrade and manage the catering and hospitality services at stations, on trains and other locations
- ✓ Develop budget hotels, special tour packages, information & commercial publicity and global reservation systems.
- ✓ Manufacture packaged drinking water for Rail Passengers.

• It is a public sector enterprise (PSE) inducted in 1999.

- o **State Tirth Trains**: To be run on request from state governments at their cost.
- Advance booking of seats for foreign tourists one year in advance to plan their journey effectively.
- India would also position itself in the luxury train segments by launching new luxury and semi-luxury tourist train for up-market tourists.

3.5.3. AID FOR UNVIABLE ROUTES

Why in News?

• Railway Ministry is **seeking compensation from the Finance Ministry for operating railway lines** of strategic and national importance that are financially unviable.

Need

- The practice of giving annual subsidy (about Rs 4000 crores) for unviable routes was **discontinued following** the merger of Railway and Union Budgets.
- Recently 2 Parliamentary bodies Standing Committee on Railways and Estimates Committee recommended that Finance Ministry should continue to compensate Railways for losses in strategic lines.

Way forward

- **Socially desirable projects** like operation on border areas and in socio-economically backward areas **are usually loss making**. Therefore subsidy is a need to avoid creation of inefficiencies in revenues of rail sector.
- Railway has a specific role in nation building and therefore subsidy is considered to be justifiable.

3.6. INFRASTRUCTURE FUNDING

3.6.1. LONG TERM FINANCE BANKS

Why in News?

• A RBI discussion paper has proposed to set up **long-term finance banks** especially to fund **infrastructure and Greenfield projects of industries**, with a minimum capital requirement of Rs. 1,000 crores.

Need

- India is in the **need of \$1.5 trillion investment in infrastructure** in next 10 year to sustain or increase the present growth levels.
- India is **suffering from Twin Balanced sheet problem** with stressed banks and overleveraged companies. Therefore **dedicated paths of infrastructure funding** are the need of the hour.
- Tenor of the infrastructural loans is very long and therefore it does not incentivize institutions like Banks. Therefore there is a need of separate infrastructure banks.

Proposal of RBI

- The eligibility criterion for promoters of a Wholesale and Long-term Finance Bank (WLTFB) is the similar to on-tap universal banking licenses. Eg.
 - Individuals with 10 years of experience in banking and finance, with total assets of at least Rs 5,000 crore and with less than 40 per cent of their total income from non-financial sources, can apply for the licence along with business groups,
 - o Large industrial houses cannot take more than 10 per cent stake in these banks.
 - These banks would be exempted from opening branches in rural and semi-urban areas and would not be forced to lend to agriculture and weaker sections of the society.
- WLTF Banks would be allowed to raise funds from selling rupee denominated bonds, commercial bank borrowing and certificate of deposits.
- They would have to maintain a Cash Reserve Ratio but not for funds raised through infrastructure bonds.
- WLTF banks would not be required to maintain Statutory Liquid Ratio.

3.6.2. STATES ALLOWED OVERSEAS LOANS

Why in News?

• Cabinet cleared a proposal recently to enable State government entities to directly access funding from international bilateral financing agencies.

Background

- Presently, external development assistance from bilateral and multilateral sources is received by the Government of India
 - o For projects or programmes in the Central sector
 - o For projects executed by Central Public Sector Undertakings
 - On behalf of the State Governments for State sector projects or programmes to be implemented by the State Governments or local bodies and state PSUs.
- The existing guidelines do not allow direct borrowings by the State Government entities from external agencies.

Need

• State entities have to approach State governments to avail international funding and any such funding is included in the State's borrowing budget which leads to violation of the Fiscal Responsibility and Budget Management (FRBM) Act.

Proposal

- State entities with revenue of greater than Rs. 1,000 crore and working on infrastructure projects above Rs. 5,000 crore, are permitted to directly take money from bilateral Official development assistance partners.
- The concerned State Government will furnish guarantee for the loan and the Government of India will provide counter guarantee for the loan.

Significance

- This would help States access investments for big infrastructure projects.
- The States would be able to take loans on the basis of a central government guarantee without burdening the State exchequer and not disturbing the state's FRBM targets.
- It will reduce the pressure on the State Budgets and allow them to spend more on welfare schemes.

3.7. FRBM REVIEW COMMITTEE

Why in News?

• FRBM review committee chaired by NK Singh which was setup to give recommendations on future FRBM roadmap presented its report recently.

Background

- The key trigger of the default at the time of 1991 economic liberalization was irrational public spending on borrowed money in the late-1980s.
- FRBM law (2003) was enacted to limit the government's borrowing authority under Article 268 of the Constitution.
- The FRBM law envisaged a fiscal deficit of 3% of GDP by 2008-09, but **due to Global Financial Crisis** and amendments over the years the same target has been set now to 2017-18.

Tightening the FRBM Act

• The government has set a fiscal deficit target of 3.2% of GDP in 2017-18.

Recommendations

- Flexibility to the Centre on the fiscal consolidation (eg. adopting fiscal expansion for the near term) by maintaining a fiscal deficit to GDP ratio of 3% till 2019-20. After this, it recommends a reduction in fiscal deficit targets (See box).
- It recommends escape clause which would allow the government to skip the fiscal deficit target for a particular year. (see box)
- Existing FRBM Act should be scrapped and a new **Debt and Fiscal Responsibility Act** be adopted.
- It has also suggested the creation of a Fiscal Council which will:
 - Prepare multi-year fiscal forecasts for the central and state governments.
 - Provide an independent assessment of the central government's fiscal performance.
 - o Government must also consult the council before invoking escape clauses.
- Instead of fiscal and revenue deficit numbers, the government should focus on **public debt as a proportion to GDP to 60% by 2023** (presently 68%). This is a simple measure of insolvency, also used by rating agencies.
- It recommends institutional reforms in fiscal management like-
 - Centre giving consent to State borrowings (as per Article 293)
 - o RBI to issue a consolidated document for bond and loan issues by each government.

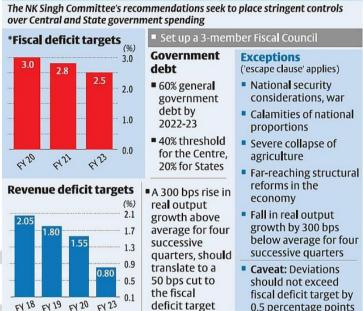
Establish a debt ceiling (acting as a long term fiscal anchor) apart from year on year targets for fiscal and revenue deficits as in FRBM.

Significance

- After demonetization, the committee has given welcome recommendation of **escape clause** and also **allowing government flexibility in reduction of fiscal consolidation targets**.
- Also, there was a need to **provide flexibility to government in case of unforeseen circumstances** that will be available in the new Act. This would also help to align fiscal and monetary expansion and contraction.

Challenges

• It is critical that States are consulted, as the 60% debt target includes 20% on their account. Some states' finances are worsening again like farm loan waivers by some of them.



3.8. GENERAL ANTI-AVOIDANCE RULES

Why in News?

• Government of India had assured to make General Anti-Avoidance Rules (GAAR) effective from April 1, 2017.

Background

- GAAR was first proposed in the Direct Tax Code 2009.
- It was again proposed in the Budget speech 2012 (by amendment to Income Tax Act) to be implemented by April 2014.
- Parthasarthy Shome committee (2012) was later setup after opposition, to recommend GAAR provisions.
- In the Budget 2016, its rollout date was decided to be 1 April 2017.
- P. Shome Committee recommendations accepted by the government were—
- Non applicability of GAAR to transactions where tax benefit is less than Rs 3 crore in a financial year
- Exemption to FIIs.
- Approving Panel for tax benefits under GAAR would have a high court judge, Indian revenue service officer and a specialist in tax and trade practices.

Need

- In recent times there have been instances of tax avoidance due to practices like transfer pricing, round tripping (parking money in low tax jurisdictions and rerouting it as FDI or FII) etc. Eg. Vodafone Case
- Oxfam report has pointed out that tax avoidance is a major cause of economic inequalities.

Different Tax Reduction measures

- Tax mitigation It is the situation when taxpayer uses fiscal incentives like tax concession given by the government to lower tax burden. Eg. Setting business in SEZ to avail tax benefits in it.
- Tax Avoidance It is a situation where a taxpayer tries to exploit the legal loopholes to reduce tax liability which would otherwise be incurred.
 - o It is an arrangement solely entered into for tax advantages.
 - E.g. Transferring profits within company by Base erosion and Profit Sharing.
- **Tax Planning**: It is a plan to minimize tax payment using options like retirement plans etc.

Components of GAAR

- GAAR is a set of rules/framework which helps the revenue authorities to decide:
 - Whether a particular transaction has commercial substance or not.
 - o The tax liability associated with a genuine transaction .
- It allows the government to tax overseas deals involving local assets.
- GAAR provisions would apply on those who claim a tax benefits of over Rs 3 crore.
- Exceptions:
 - o If the Limitations of Benefits (LOB) clause sufficiently addresses tax avoidance, then GAAR will not apply.
 - Court approved arrangements would be kept out of GAAR.
 - o If an arrangement is permitted by the Authority for Advance Rulings, then GAAR will not apply.

Significance

- It will help the tax authorities to plug loopholes check tax avoidance and thus may **promote tax revenues for the government**.
- Through GAAR, the government can **curb the prevalence of P-Notes** which have become a tool to invest black money into the formal Indian economy.
- It will be a step towards ease of doing business in the long term by promoting free and fair investments.
- India will come in line with other developed countries that have already implemented GAAR.

Challenge

- The powers and responsibilities of revenue authorities in relation to GAAR still remain undefined and it can lead to harassment of legitimate tax planning.
- There is subjectivity in differentiating between tax mitigation and tax avoidance practices.

> Arrangements approved by court or held permissible by the Authority for Advance Rulings will not be covered by GAAR
> Transaction

transaction to be permissible and conditions remain the same, GAAR will also not be invoked in the next year

GAAR will apply

> If the panel holds a

proposed to be covered will be vetted first by commissioner and second by an approving panel headed by HC judge

arrangement results in an aggregate tax benefit of ₹3cr or more for all parties across countries

where the tax avoidance

of GAAR.

Way forward

- The government has already started taking steps to avoid tax avoidance. It has introduced advanced pricing rules, Limitations of Benefits clause in Double tax avoidance agreements etc. Introduction of GAAR would reinforce the steps already taken to improve tax collection.
- The government would also have to create a balance between preventing tax avoidance and having a transparent and responsible administration to deal with it.

3.9. TECHNICAL TEXTILES

Why in News?

- TechnoTex 2017 was recently launched in Mumbai with the theme of "Technical Textiles: Towards future".
- This was organized by Ministry of Textiles and FICCI.

Need

- Technical textile is judged to be a sunrise sector because its potential has yet not been tapped. Also, high consumer disposable income raises the demand for such technical textiles
- Although China is ahead on technological aspect of its production but its costs are becoming prohibitive.

Technical/Functional textiles

- They are a group of textiles not used for aesthetic purposes but for its functional properties.
- They can be woven or non-woven.
- E.g. Geo textiles are permeable fabrics that are used in association with soil and have the ability to separate and filter.

Background

- Government launched **Scheme for growth and development of technical textiles (SGDTT)** (2007-2010). Its 3 components were:
 - Baseline survey to build technical textile industry database.
 - Setup centres of excellence for infrastructural support like BTRA for Geotextiles, SASMIRA for Agrotextiles, NITRA for Protective Textiles and SITRA for Medical Textiles.
 - Awareness generation among entrepreneurs.
- Subsequently, government launched **Technology Mission on Technical Textiles** (2010-2014) to overcome the issue of technical textile industry. It has 2 mini-missions -
 - Mini Mission-I For standardization, creating common testing facilities, indigenous development of prototypes and IT based resource centres.
 - o Mini Mission-II It focuses on support for domestic and export market development through assistance for business start-ups, contract research and participation in international exhibitions.
- All technical textiles based machinery is covered under Technology Upgradation Fund Scheme.

Significance

- Technical textile has many benefits like:
 - o Agricultural textiles are used in shading and in weed and insect control.
 - **Environmental conservation** Geotextiles like non-woven bags stored with sand are used to prevent soil erosion.
 - Meditech products include use in hygiene, personal care and surgical applications. E.g. Diapers etc.
 - o Industrial textiles used in industrial products like filters, printed circuit boards etc.
- Technical textiles can be a potential source of export revenue.

Challenges

- Presently, it is a fragmented structure with various small and medium industries.
- There is a **lack of database on units** working on technical textiles.
- Awareness among consumers and the entrepreneurs is low.
- There is an irregular supply and irrational pricing of raw materials used in technical textiles production.
- Competition from neighbouring countries like China, Bangladesh etc.

3.10. GEMS AND JEWELLERY SECTOR

Why in News?

Prime Minister recently reiterated his vision to make India the hub of gems and jewellery.

Need

• Government aims to increase its share in the global jewellery export market to about 50% which is presently dominated by manufacturers from Italy, Germany, Turkey and Hong Kong.

Background

- It is estimated that 12 of 14 diamonds sold globally are cut or polished in India.
- India has a 60% share by value and 90% share by volume in global diamond market.
- The availability of high skilled labour, low costs, technology and market determines this industry's distribution.
 - o The hub of India's jewellery industry is Mumbai-
 - ✓ It receives the majority of the country's gold and rough diamond imports.
 - ✓ It has a number of modern, semi-automatic factories and laser-cutting units in SEZs.

In terms of segments, exports for 2015-16 were as follows:

- Cut and polished diamonds: US \$ 20b
- Gold Medallions and coins: US\$ 5.2b
- Silver Jewellery: US\$ 3b
- o Most of the diamond processing, is undertaken in Gujarat, (primarily in Surat, Bhavnagar, Ahmedabad and Bhuj) and in Rajasthan (Jaipur).
- Kolkata and Trichur is popular for its lightweight plain gold jewelry.
- Hyderabad in Andhra Pradesh is the centre for precious and semi-precious studded jewellery. Nellore in Andhra Pradesh is a source for handmade jewellery

Challenges

- Availability of raw material like diamond roughs is poor.
- The demands and consumption patterns have changed globally. Now **demand is more for fashion jewellery** rather than heavy fabricated jewellery which is in demand from Indian customers.
- Lack of capability to manufacturer designs demanded by the foreigners. Eg. Indian manufacturers have the expertise to make 22 and 20 carat gold jewellery but exports market demand 8 or 10 carat gold jewellery
- Absence of large scale machinery to cater to the volume of jewellery demanded from abroad.
- Government documentation deters exports in this sector.

Steps taken by government

- Government is lobbying with Russian major Alrosa for directly making available "Diamond Roughs".
- Gems and Jewellery sector has been designated as a focus area for export promotion. Also 100% FDI is allowed under the automatic route in this sector.
- Indian Institute of Gems & Jewellery (IIGJ) located in Mumbai is being strengthened for capacity building and skill development across India.
- GJEPC, with the help of the commerce ministry, is setting up a **gold craft and design institute at Udupi in Karnataka** to reskill local artisans and revive Dakshina Kannada cluster in jewellery.
- Indian exporters have prepared an **export promotion strategy** and a target of \$60 billion worth of gems and jewellery exports in five years, from last year's \$35 billion.

Way forward

- Skill development with changes in demands from the consumers is essential.
- Currently, Indian manufacturers **export unbranded products** where importers tag them with their brand and charge a premium. Indian jewellers should shift from unbranded to branded jewellery for better profits.

3.11. INCREASE OIL PALM PRODUCTION

Why in News?

• Cabinet recently approved measures to increase oil palm area and production in India.

Need

- The total production of edible oil in the country is about 9 million MT while the domestic requirement is around 25 million MT. This gap is met through imports amounting to about Rs. 68,000 crores in 2015-16.
- The waste land or degraded land in the oil palm growing states can be given on lease/rent to private entrepreneurs. However, financial assistance under NMOOP is available for at most 25 hectare.

Background

- Palm oil makes 70% of vegetable oil import and is one of the cheapest due to high productivity per hectare.
- Malaysia, Indonesia, Nigeria, Thailand and Columbia are the major oil palm producing countries.

Proposed Changes

- Cabinet relaxed land ceiling limit to assist areas more than 25 hectare under NMOOP.
- Norms of assistance for planting materials, maintenance, inter-cropping and bore-well relaxed.
- Annual Action Plan of the State will be approved by Dept. of Agriculture, Cooperation & Farmers Welfare.

National Mission on Oilseeds and Oil Palm (NMOOP)

- It aims to bring an additional area of 1.25 lakh hectare under oil palm cultivation by the end of 2016-17.
- o Increasing irrigation coverage under oilseeds from 26 percent to 38 percent;
- o Diversification of area from low yielding cereals crops to oilseeds crop
- Inter-cropping of oilseeds and use of fallow land along with area expansion under oil palm.
- o Enhancing procurement of oilseeds and collection.

Significance

- Private entrepreneurs and cooperative bodies will show interest to **invest in oil palm plantation** and would be able to derive maximum benefit of 100% FDI.
- It will help **utilize the wetlands** in oil palm production.
- Revision of cost norms would also motivate farmers to pursue oil palm production.

Challenges

With high demands of oil palm, substantial tracts of tropical forests are being cleared to make room for oil palm cultivation. This threatens the ecosystem services.

3.12. START-UPS INTELLECTUAL PROPERTY PROTECTION SCHEME

Why in news?

Government has extended Start-Ups Intellectual Property Protection (SIPP) scheme for 3 years till March 2020. Started initially on a pilot basis from Jan 2016 to Mar 2017.

About the scheme

- The major objective of the scheme is to protect and promote Intellectual Property Rights awareness for startups and to encourage creativity and innovation amongst them.
- For implementation, DIPP has empanelled several facilitators, who are required to provide IPR-related services to startups. Facilitators will not charge anything from a startup as government will bear the cost of facilitation.

Start up as defined by government

Start-up means an entity, incorporated or registered in India not prior to five years, with annual turnover not exceeding INR 25 crores in any preceding financial year, working towards innovation, development, deployment or commercialization of new products, processes or services driven by technology or intellectual property.

CGPDTM

It is a subordinate office under the DIPP. It administers the working of the Patents Act, 1970, the Trade Marks Act, 1999, the Geographical Indications of Goods (Registration and Protection) Act, 1999 and the Designs Act, 2000 and also renders advise to the Government on matters relating to Intellectual Property Rights.

The facilitators shall be empanelled by the Controller General of Patent, Trademark and Design (CGPDTM).

3.13. BUSINESS REFORM ACTION PLAN 2017

Why in news?

The Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, and the World Bank Group, released the Business Reform Action Plan (BRAP) 2017 for implementation by States/UTs

About BRAP 2017

- It includes 405 recommendations for reforms on regulatory processes, policies and procedures spread across 12 areas that includes labour regulation; contract enforcement; inspection; single window system; land availability and allotment, etc.
- This year there are 103 new reforms (out of 405) focusing on central inspection system, online land allotment system, online single window system for construction permits, registration under Inter State Migrant Workmen (RE&CS) Act, 1979, etc.
- BRAP 2017 also includes two new sectors i.e. Healthcare and Hospitality.
- The last date to implement the reform is 31.10.2017.

DIPP

It was established in 1995 and reconstituted in 2000 with the merger of the Department of Industrial Development.

Role of DIPP

- Formulation and implementation of industrial policy and strategies for industrial development
- Monitoring the industrial growth including advice on all industrial and technical matters
- Formulation of Foreign Direct Investment (FDI) Policy and promotion, approval and facilitation of FDI
- Encouragement and formulating policy for foreign technology collaborations at enterprise level
- Formulation of policies relating to Intellectual Property Rights in the fields of Patents, Trademarks, Industrial Designs and Geographical Indications of Goods and administration of regulations, rules made there under
- Administration of Industries (Development & Regulation) Act, 1951
- Promoting industrial development of industrially backward areas and the North Eastern Region

3.14. ED CRACKS DOWN ON 300 SHELL FIRMS

Why in News?

 The Enforcement Directorate conducted searches against 300 shell companies across 16 States on suspicion of largescale money laundering and foreign exchange violations.

What are Shell companies?

Shell Company is a firm without active business operations or significant assets.

Enforcement Directorate

- It is a government agency responsible for enforcement of the Foreign Exchange Management Act, 1999 (FEMA) and certain provisions under the Prevention of Money Laundering Act (PML).
- The Directorate is under the administrative control of Department of Revenue for operational purposes; the policy aspects of the FEMA, its legislation and its amendments are within the purview of the Department of Economic Affairs.

3.15. GLOBAL FDI CONFIDENCE INDEX

Why in News?

 India has jumped one spot to 8th rank in the 2017
 A.T. Kearney Foreign Direct Investment (FDI)
 Confidence Index.

India's Ranking

 For the second year in a row, India appeared in the top 10. On which of the following factors does India perform best in terms of its FDI environment?

Rank	Factor	Percent
1	Cost of labor	32%
2	Domestic market size	24%
3	Talent and skill level of labor pool	17%
4	Technological and innovation capabilities	17%
5	Domestic economic performance	14%

On which of the following factors does India perform worst in terms of its FDI environment?

Rank	Factor	Percent
1	Regulatory transparency and corruption	22%
2	General security environment	18%
3	Quality of transportation infrastructure	18%
4	Quality of electricity infrastructure	17%
5	Efficiency of legal and regulatory processes	17%

Note: The top five of 20 factors are shown here. Numbers do not add up to 100 because respondents could select up to three choice Source: 2017 A.T. Kearney Foreign Direct Investment Confidence Index

3.16. RULES EASED: MERGER WITH FOREIGN FIRMS

Why in news?

 Indian companies have been permitted to conduct outbound mergers, according to a notification by the Ministry of Corporate affairs.

Key Features

- With outbound mergers permissible, there would be opportunities for Indian companies to acquire, restructure, or list on offshore exchanges.
- The merger would be in compliance with the **Companies Act, 2013**, and require prior approval of **RBI**.
- The government had recently exempted firms, with Indian revenue of less than Rs. 1,000 crore, from seeking the prior approval of the **Competition Commission of India (CCI)** while going in for a merger.

3.17. NEW EMPLOYEE PENSION SCHEME

Why in news?

 The government announced to bear employers' contribution of 8.33% of basic pay to the Employees' Pension Scheme (EPS) for new employees under the Pradhan Mantri Rojgar Protsahan Yojana (PMRPY) even if new posts are not created by the firm. A "new employee" is defined as one who had not worked in any EPFO-registered establishment or had a Universal Account Number in the past, i.e. prior to April 1, 2006.

Outbound merger and acquisitions

(M&A) refers to investments by a

company of Indian origin in a

The Companies Act, 1956 had no provisions for outbound mergers

(only inbound mergers). It was

replaced by Companies Act, 2013.

foreign based company.

Pradhan Mantri Rozgar Protsahan Yojana

- This scheme was announced in budget 2016-17.
- It has been designed to incentivise employers for generation of new employment, where Government of India will be paying the 8.33% EPS contribution of the employer for the new employment.
- employer is incentivised for increasing the employment base of workers in the establishment.
- A direct benefit to employees is access to social security benefits of the organized sector.

3.18. TRAVEL AND TOURISM COMPETITIVE INDEX

Why in news?

 India's position improved to 40th rank in the World Economic Forum's latest Travel and Tourism Competitive Index (TTCI).

About the Index

- It measures factors and policies that enable the sustainable development of Travel & Tourism sector, contributing in development of a country.
- It is published biennially and ranks 136 economies.

Key Facts

- The theme of the report is 'Paving the Way for a More Sustainable and Inclusive Future'.
- India improved 12 places to 40 from 2016 and improved 25 places since 2013.
- India's competitiveness improved across the board, particularly in cultural resources (9), natural resources (24), price competitiveness advantage (10), international openness (55) and T&T sector (29).

Government Initiatives to Improve Tourism Sector

 PRASAD Scheme: development of tourism infrastructure in and around famous religious and pilgrimage cities.

Outbound Merger

- **Swadesh Darshan Scheme** aims at the development of a complete circuit on a specific theme.
- E-visa process simplified. covering nationals of 161 countries and allowing visits for business and medical treatment.
- Incredible India Tourist Helpline was launched (2016) to provide assistance and information to tourists in 12 languages of the world including Hindi & English
- Ministry of Tourism has launched a 'Welcome Card'free SIM Card with pre-loaded talk-time and data to all tourists arriving in India on the e-Tourist Visa.
- A task force for Cruise Tourism and a Medical and Wellness Tourism Promotion Board was set up.

3.19. GEO-TAGGING OF ASSETS CREATED UNDER RKVY

Why in news?

 A memorandum of understanding (MoU) has been signed between the National Remote Sensing Centre (NRSC), a wing of ISRO, and Rashtriya Krishi Vikas Yojna (RKVY) division of the Agriculture Ministry.

What is it?

 The government has decided to geo-tag all assets (80 kinds of assets are created under the RKVY) like farm ponds, soil testing labs and seed godowns for their better utilisation.

What is Geo-tagging?

- It is the process of adding geographical identification like latitude and longitude to media such as photo or video.
- It can help users find a wide variety of location-specific information.

What is Geo-mapping?

- It is a visual representation of the geographical location of geotagged assets layered on top of map or satellite imagery.
- Both the features will be visible on the Govt-owned 'Bhuvan', developed by ISRO, that allows users to explore a 2D/3D representation of the surface of the earth.

Benefits of Geo-tagging

- It will provide geographical location and size of the holding and help the Government in scientific planning of infra projects.
- It would provide crop-wise details as evidence in case of crop damage and help prepare a contingency plan to tackle drought.

Rashtriya Krishi Vikas Yojana

- RKVY is a **special Additional Central Assistance scheme** to incentivise States that increase their investment in agriculture and allied sectors.
- It was launched in 2007 on the recommendation of the National Development Council.

3.20. OUTCOME BUDGET

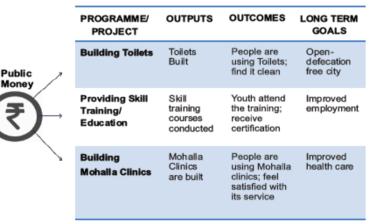
Why in news?

 Delhi's Outcome Budget document was released calling it "a historic innovation for ushering in transparency and accountability in public spending".

What is Outcome Budgeting?

- Outcome refers to the end result of government initiative and interventions.
- Therefore, outcome budget measures how well a policy has been implemented.
- A unique feature of outcome budgeting is that it not only measures the end results

Link between Public Spending, Outputs, Outcomes & Long-Term Goals



in terms of rupees or fund utilisation but also in physical units. For example: how many kilowatts of energy have been produced.

- It was first introduced in India in 2005-06. From 2007-08, it has been merged with the Performance Budget.
- The outcome budget showcases the physical dimensions of the financial budget indicating the actual
 physical performance in the previous year, current year and targeted performance during the projected
 (next) year.

3.21. DYNAMIC FUEL PRICING

Why in News?

The government has decided to allow fuel-retailers to change petrol and diesel prices every day, in sync with global prices.

Impact of the proposed change

- Political interference will be minimised
- No shock to customers as international oil prices do not fluctuate widely on a daily basis.
- Effect on inflation as the new practice will add one more factor to the change price essential commodities such as food items, cereals, fruits and vegetables

A global practice

Making fuel prices a daily function of global rates of crude is implemented as a norm in developed countries



Crude reality: A worker rests on a crude oil pipeline at Ennore. Crude prices globally will now decide movement of fuel price in India. • s.r. raghunathan

A pilot for daily revision of petrol and diesel price will be implemented first in Puducherry, Visakhapatnam in Andhra Pradesh, Udaipur in Rajasthan, Jamshedpur in Jharkhand and

Chandigarh

CURRENT PRACTICE: State fuel retailers currently revise rates on 1st and 16th of every month, based on average international fuel prices in the preceding fortnight and the exchange rate

PROPOSED PRACTICE: Instead of using fortnightly average, pump rates will reflect daily movement in international oil prices and rupee-U.S. dollar fluctuations

 Petrol prices were deregulated in June 2010, and diesel prices in October 2014

Books of accounts of oil marketing firms will immediately reflect the price movement, allowing them to reduce or make provision for losses or profit arising out of sale and purchase of fuel on daily basis.

3.22. RBI REVISED PROMPT CORRECTIVE ACTION

Why in news?

The RBI is set to revise guidelines for **Prompt Corrective** Action (PCA) plan required to be mandatorily set in motion by ailing banks.

What is PCA?

- PCA is a process or mechanism to ensure that banks don't go bust.
- Thus, RBI has put in place some trigger points to assess, monitor, control and take corrective actions on banks which are weak and troubled.
- PCA was first introduced after the global economy incurred huge losses due to the failure of financial institutions during the 1980s and 1990s.

- CRAR is the acronym for Capital to Riskweighted Assets Ratio, a standard metric to measure balance sheet strength of banks
- ROA stands for return on assets. It is the percentage of net income generated with respect to average total assets.
- CET 1 ratio: The percentage of core equity capital, net of regulatory adjustments, to total risk-weighted assets as defined in RBI Basel III guidelines
- **NNPA Ratio:** the percentage of net NPAs to net advances
- Tier 1 Leverage Ratio: the percentage of the capital measure to the exposure measure as defined in RBI guidelines on the leverage ratio.
- According to the latest Prompt Corrective Action (PCA) plan, the banks are assessed on three parameters, and they are:
 - ✓ Capital ratios
 - ✓ Asset Quality
 - ✓ Profitability
- Indicators to be tracked for Capital, asset quality and profitability would be CRAR/ Common Equity Tier I ratio, Net NPA ratio and Return on Assets respectively.

4. SECURITY

4.1. DEFENSE PROCUREMENT ORGANISATION (DPO)

Why in news?

Recently, Pritam Singh Committee suggested the creation of a **Defense Procurement Organisation (DPO).**

Need for DPO

The acquisition of military equipment has been relentlessly slow. The reasons for which are:

- Budgets have been poorly allocated causing a sort of information asymmetry between the concerned ministries and the public at large.
- Corruption has also made various deals fail.
- Large **unused funds** are lying with ministry of defence.
- Multi-layer decision making process.

Advantages of DPO

- It will take absolute control of the acquisition process and have a **self-regulating system** of checks and balances in order to inhibit corruption and ensure efficiency.
- It will minimise risk while ensuring timely delivery of the desired equipment.

Other reforms

- The Cabinet Committee on Security (CCS) has increased the financial powers of the Defence Minister.
- Defence Minister can clear deals up to Rs 2000 crore from Rs 500 crore before.
- The Defence Secretary has also been given the power to undertake deals up till Rs 500 Crore.

4.2. BORDER MANAGEMENT AND CEASEFIRE VIOLATIONS

Why in news?

Recently the Parliamentary panel on home affairs has highlighted in its report that after the 1971-Pakistan war, the country's borders had never been as vulnerable as it is now.

Recommendations of the Committee

Land border management

- Border infrastructure development, which includes: border outposts, fencing, border roads (especially along the Pakistan border), border protection grid and floodlighting etc.
- To tackle cattle smuggling at India Bangladesh border mass movement and trading of cattle should be prohibited within 15 km of the border.

India has **15,106.7** kms of land border running through 92 districts in 17 States and a coastline of 5,422 kms touching 12 States and Union Territories (UTs). The major border security challenges of India are:

- Cross-border terrorism,
- Infiltration and exfiltration of armed militants and insurgents,
- Narcotics and arms smuggling;
- Illegal migration;
- Separatist movements aided by external powers
- Cattle smuggling
- Porous border e.g. indo Myanmar border.

• For the India Myanmar border **transfer of control to Border Guard Forces (BGF)** instead of Assam riffles for better management.

General border management

Issues with BGF

- Jawans are overworked and hence fatigued during patrolling duty.
- There is no mobile connectivity in Border Outposts (BOPs) and the only available means of communication with their families is through satellite phones.
- Border Protection Grid is a term used for sealing the border by means of physical obstructions as well as technical instruments/electronic gadgets to stop infiltration across the border.
- It includes barbed wire fencing, walls, flood lighting, laser beams, cameras, alarm system etc.
- Deployment of BGF Battalions to duties other than Border Guarding due to internal security reasons.

- Deficiency of some surveillance equipment, like Hand-held Thermal Imagers, which are essential for surveillance during night.
- Medical facilities for personnel posted on the border is severely inadequate. The personnel had to be transferred to Frontier Headquarters for even basic treatment.
- Disparity in wages and allowances in comparison with the army.

Recommendations

- The proposals of BGFs to raise additional number of battalions should be considered on a priority basis.
- Composite BOPs should be developed with telephone, medical facilities etc.
- Hard area allowance should be exclusively decided on the basis of geographical and climatic conditions of the area of deployment and should be uniform for personnel of all the forces, be it CAPFs or Army.

Coastal Security

- Phase II of coastal security scheme should be extended and completed at the earliest.
- There should be a clear command chain and defined standard operating procedures with reference to coastal security.
- Speedy enforcement of Island Information System geo-portal and Holistic Development of Island Scheme for security and development of vulnerable islands. **Multi Agency Centre**

Institutional Support

- Effective fund allocation and operationalization of NATGRID.
- Consultation with state Govts. by the centre over low participation in Multi agency centre (MAC).
- Effective steps for roll out of National counter terrorism centre (NCTC).

Coastal Security Scheme

the coast.

objective is strengthening infrastructure of Marine Police

Force of all coastal States/UTs.

• It is formulated for patrolling and

• Phase-I was implemented in 9

infrastructure for coastal policing.

coastal States and 4 coastal Union

Territories to strengthen their

surveillance of coastal areas,

particularly shallow areas close to

It is a platform to share varied intelligence information from multiple agencies like enforcement directorate, economic intelligence agency

National Counter Terrorism Centre (NCTC)

Need

- After the 26/11 attacks, Government felt the need to setup a separate body to deal with terrorism.
- NCTC is modelled on the American NCTC and Britain's Joint Terrorism Analysis Centre.
- NCTC will derive its powers from the Unlawful Activities Prevention Act, 1967.
- The basic idea is to prevent confusion regarding intelligence inputs.

Functions

- It will have the power to conduct searches and arrests in any part of India.
- It will collect, collate and disseminate data on terrorism.
- It will also maintain a database on terrorist and their associates including their families.
- In short, NCTC will serve as a single and effective point of control and coordination of all counter terrorism measures.
- The **standing council** of the NCTC will consist of anti-terror agencies in states.
- The body will have 3 divisions dealing with collection and dissemination of intelligence, analysis and operations.

Issues

- Some states allege NCTC to be non-federal nature. NCTC will be empowered to search and arrest people without informing the state government, police or anti-terror squad in the loop.
- Its functions overlap with NIA.

4.3. ARMED FORCE SPECIAL POWER ACT

Why in News?

Government of India filled a curative petition against the July 2016 verdict of SC regarding the AFSPA.

Background

- SC ruled that every death caused by armed forces in a disturbed area involving either common person or an insurgent must be thoroughly enquired into so as to find out whether the killing was extra-judicial.
- Thus there is **no absolute immunity** for armed forces personnel even in a disturbed area.

About AFSPA

- Armed Forces (Special Powers) Act, enacted in the year 1958, grants extra-ordinary powers and immunity to the armed forces to bring back order in the disturbed areas.
- Some of these extra-ordinary powers include:
 - o Fire upon anyone after giving warning who is acting against law & order in the disturbed area.
 - Arrest anyone without warrant.
 - Stop and search any vehicle or vessel.
 - o Armed forces personnel have legal immunity for their actions.
- Presently AFSPA is enforced in the 6 states of North East and J&K. Tripura recently decided to lift this act.

Arguments against AFSPA

- It has been alleged that immunity granted by the act has led the armed forces to misuse the powers given to them by this act and commit offences like fake encounters and sexual assault.
- It leads to suspension of fundamental rights and liberties guaranteed to the citizens by the constitution. Thus weakens democracy.
- Critics argue that this act has failed in its objective of restoring normalcy in disturbed areas although being in existence for about 50 years.
- Both **Justice Verma Committee** and Reddy Committee have recommended removal of absolute immunity under AFSPA.

Arguments in favor of AFSPA

- It is essential for the armed forces to function effectively in insurgency and militancy affected areas.
- Provisions of this act have played a crucial role in maintaining law and order in disturbed areas. Thus protecting sovereignty and security of the nation.
- Hundreds of armed forces personnel loss their lives every year at the hands of insurgents and militants. It is crucial to empower them. Withdrawal would result in poor morale.

4.4. CYBER SECURITY OF FINANCIAL SECTOR

Why in news?

• The Sub-Committee of the Financial Stability and Development Council (FSDC), discussed the setting up of a Computer Emergency Response Team for the Financial Sector (CERT-Fin)

Background

• In budget 2017-18, it was proposed as a specialized agency to tackle threats related to financial sector.

Need of CERT-Fin

- The exponential **growth in digital payments** and the push towards a cashless economy has renewed focus on the need to strengthen financial cyber security.
- Banks and financial institutions are vulnerable to various forms of cyber-attacks and online frauds.
- ATM and retail banking are also increasingly vulnerable to cybercrime.
- Mobile frauds are also expected to grow to 60-65% in 2017.

Other Measures taken by RBI

- It directed banks to implement a **security policy** containing strategy for dealing with cyber threats and possible **"cyber-hygiene" measures**.
- The RBI had also notified the **Cyber Security Framework (CSF)**. It states that banks have an urgent need to put in place a robust cyber security/resilience framework and ensure continued preparedness
- RBI had already created a **specialised cell (C-SITE)** to conduct detailed IT examination of banks' cyber security preparedness, to identify the gaps and to monitor the progress of remedial measures.

4.5. CHEMICAL WEAPONS

Why in news?

• A sarin gas attack in Syria's Idlib province killed more than 80 people, including several children.

What are chemical weapons?

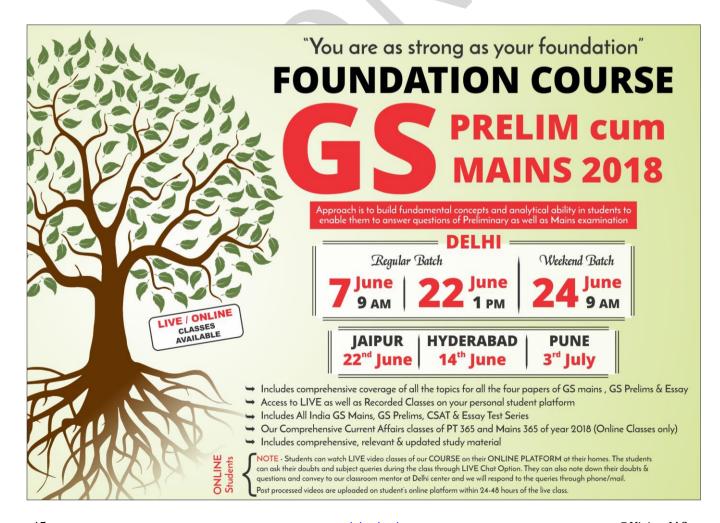
- Chemical weapons are specialised munitions that deliver chemicals that inflict death or injury on humans through chemical actions.
- Some commonly used chemical weapons are mustard gas, phosgene, chlorine, and the nerve agents Sarin and VX.

Those in news

- <u>Sarin</u>: The UN had confirmed use of Sarin in the deaths of hundreds in a rebel-held Damascus suburb in 2013.
- <u>VX</u>: nerve agent reportedly used in the assassination of Kim Jong-nam, half-brother of North Korean leader Kim Jong-un this February.

International conventions and forums against the use of chemical weapons

- Geneva Protocol in 1925: The Convention was silent on the production, storage and transfer of these chemicals.
- Chemical Weapons Convention (CWC) of 1993
 plugged these holes. It outlawed the production
 as well as stockpiling of chemical weapons. 192
 countries have so far agreed to be bound by it—
 4 UN states are not party: Israel, Egypt, North
 Korea and South Sudan.
- The CWC is administered by the Organisation for the Prohibition of Chemical Weapons (OPCW), which won the Nobel Peace Prize in 2013.
- The Australia Group (AG) is an informal forum of countries that, through the harmonisation of export controls, seeks to ensure that exports do not contribute to the development of chemical or biological weapons.



5. ENVIRONMENT

5.1. DRAFT GANGA MODEL LAW

Why in News?

A committee of experts headed by Justice Girdhar Malviya recently submitted its draft model law to the government on cleanup of river Ganga and its tributaries.

Background

- In 2016, government had formed committees on cleaning of river Ganga and prepares adequate law on it.
 - o Girdhar Malviya committee given the charge to prepare a draft law on clean and uninterrupted Ganga.
 - Madhav Chitale committee formed to prepare guidelines for desilting the river stretch between Bhimgauda (Uttarakhand) and Farakka (West Bengal).
- Recently, Uttarakhand High Court has given Ganga and Yamuna the status of 'living rivers', thus allowing petitions on behalf of rivers from anyone.

Findings of the committee

The committee recognized the challenges being faced to maintain the wholesomeness - Nirmalta (cleanliness)

and Aviralta (uninterrupted flow) of Ganga perpetuated due to

- Over stressed water demand from agricultural, domestic and industrial sectors
- Sustaining the religious faith, historical and social belief
- o No possible increase in availability of water in river course in comparison to the increasing demands
- Apprehension of climate change affects.
- It has also come up with a draft model law (See provision in the box).

Steps to clean Ganga till now

- Government has launched Namami Gange programme with a budget outlay of Rs 20000 crore till 2020.
 - Institutional mechanism -
 - The program would be implemented by the National Mission for Clean Ganga (NMCG) and State Program Management Groups (SPMGs).
 - A three-tier mechanism has been proposed for project monitoring comprising of -
 - High level task force chaired by Cabinet Secretary assisted by NMCG at national level
 - State level committee chaired by Chief Secretary assisted by SPMG at state level

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District level committee chaired by the District Magistrate.

Administration:

46

- Centre will provide for operation & maintenance of the assets for a minimum 10 year period (unlike previous Ganga Action plans)
- ✓ Adopt a PPP/SPV approach for pollution hotspots.
- ✓ Centre also plans to establish a 4-battalion Ganga Eco-Task Force, a Territorial Army unit and a legislation that aims to check pollution in the river.

RIVER CLEAN-UP ACT

DRAFT GANGA ACT: Centre will bring a bill after consulting states and central

KEY POINTS

Sets December 31, 2020 as deadline to free the river from pollution



farming in flood plain

fixed by local bodies

untreated sewage

violation continues

or both. Fine may increase to

₹10.000 if violation continues

c. Punishment for adopting non-organic

Punishment | One month jail or ₹2,000 fine

d. Punishment for contaminating river by

Punishment | Jail up to 7 years with fine as

e. Disrupting flow of river through construction

Two years' jail or fine up to ₹100 crore or both

Punishment | Up to seven years jail or ₹10 lakh

or change of design of storage capacity of dams:

throwing non-degradable plastic, waste

hatteries or hazardous chemicals

f. Discharge of industrial effluent or

fine or both: ₹5 lakh for every day if

a. No person will spoil or deface 'ghats' and stairs by disposing of any kind of solid waste on river bank by any means. including incineration/burning

Punishment | One-month jail or fine up to ₹10,000 or both

(Exception: Ritual ceremonies of human corpses as per prevailing practice will not be an offence)

b. Encroachments on the river bank or flood plain

Punishment | Three months' jail or fine up to ₹5.000 or both; fine will increase by ₹5.000 for every day during which contravention continues

(Exception: Temporary encroachment for religious or traditional ceremony will be allowed for specific time period)

Setting up Integrated Development Council for overall

monitoring of Ganga -PM will

be ex-officio chairperson, central

ministries. CM will be members

Setting up National River (headed by Ganga rejuvenation minister) for implementation of

6 Setting up Ganga Volunteer Force for protection, security and enforcement activities

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Ganga Management Corporation various river cleaning projects

- ✓ Focus on pollution abatement interventions namely Interception, diversion & treatment of wastewater through bio-remediation, appropriate in-situ treatment, innovative technologies, sewage treatment plants (STPs) and effluent treatment plant (ETPs).
- The **River Ganga Authorities Order 2016** has created **National Council for River Ganga** under Prime Minister for superintendence of pollution prevention of Ganga basin.
- Ganga Mahasabha founded by Madan Mohan Malviya is associated with Ganga conservation movement which is a civil society led movement to clean the river Ganga.

Significance

- A law with penalties defined for individual acts of polluting Ganga will deter the polluters to pollute rivers.
- Target specific timeline will enable the government to effectively plan the cleaning of the rivers.
- Such law combined with the High court judgement of living rivers would help in the easy use of the judicial process to keep the executive government accountable to clean Ganga.

Challenges

- The draft law tries to give exceptions. These exceptions could be hard to monitor because of their subjectiveness.
- Civil society also needs to be involved in the monitoring and the implementing process which has not been explicitly dealt in the draft law.

Way forward

- The new government has initiated many new steps towards cleaning the river Ganga. It has even **increased the funding by fourfold than the past 3 decades combined**.
- But, Institutional mechanisms and laws have been the tools to clean rivers in the past too. Better
 implementation and the political will is the need of the hour which will determine the future course of the
 cleanup of the rivers.
- Apart from the government, the awareness in the citizens also need to be improved especially those living along the Ganga shoreline on Open defecation, use of chemicals in agriculture etc.

5.2. NEW GLOBAL STANDARD ADOPTED FOR MAKING TRADE IN PLANTS AND SEEDS SAFER

Why in News?

The International Plant Protection Convention (IPPC)'s governing body- the Commission on Phytosanitary Measures (CPM) has adopted a new global standard for making trade in plants and seeds safer.

Need for new standards

- Seeds are moved internationally for many uses: production of food, biofuels, fibre and also for pharmacological uses. They also have pre-commercial uses like research, breeding and seed multiplication.
- Seeds, when introduced to a new environment, may present a pest risk. It includes:
 - Anthropods affected at both at pre and post-harvest levels due to poor storage conditions.
 - Fungal infections.
 - o Bacteria and viruses which affect seed embroyo.
- Often, several years pass between production and export of seeds to the final destinations.

New standards

- When assessing pest risk and determining phytosanitary measures, National Plant Protection Organisations
 (NPPOs) should consider intended use of seeds: research, planting under restricted conditions or under natural conditions.
- A **pest risk analysis (PRA)** should be done to determine if the seeds facilitate entry and spread of pests.
- Specific phytosanitary measures including before planting, during growth, post-harvest etc. are allowed.
- Guidelines for an **import regulatory system** and a series of treatments that stop pests from burrowing into wooden packaging materials and methods to stop fruit flies from attacking citrus fruits.

International Plant Protection Convention (IPPC)

- It is a 1951 multilateral treaty overseen by the Food and Agriculture Organization (FAO)
- It aims to secure coordinated, effective action to prevent and to control the introduction and spread of pests of plants and plant products.
- The Convention extends beyond the protection of cultivated plants to the protection of natural flora and plant products.
- It also takes into consideration both direct and indirect damage by pests, so it includes weeds.
- The Convention created a **governing body** consisting of each party, known as the **Commission on Phytosanitary Measures** (CPM)
- The Convention is recognized by the World Trade Organization's (WTO) Agreement on Application of Sanitary and Phytosanitary Measures (the SPS Agreement) as the only international standard setting body for plant health.
- IPPC also covers research materials, biological control organisms, germplasm banks, containment facilities, food aid, emergency aid and anything else that can act as a vector for the spread of plant pests for example, containers, packaging materials, soil, vehicles, vessels and machinery.

5.3. HYDROGEN FUEL VEHICLES

Why in news?

Recently Toyota Motor North America, Inc. unveiled "Project Portal", a hydrogen fuel cell system designed for heavy-duty truck use.

Advantages of hydrogen as a fuel

- Hydrogen is the lightest element but it has the highest energy content per unit weight of all fuels.
- Its energy density is three times greater than that of petrol.
- Hydrogen can be extracted from virtually any hydrogen-containing compound, including both renewable and non-renewable resources
- Waste products from hydrogen in vehicles are only water vapour and warm air.

Challenges

- Hydrogen, seldom found on its own in nature, typically combines with oxygen and carbon.
- Storing hydrogen a challenge because it requires high pressures, low temperatures, or chemical processes to be stored compactly.
- Production cost of hydrogen fuel based vehicles is high at present

Fuel cell

- A fuel cell uses the chemical energy of hydrogen or another fuel to cleanly and efficiently produce electricity. If hydrogen is the fuel, electricity, water, and heat are the only products.
- Fuel cells work like batteries, but **they do not run down or need recharging**. They produce electricity and heat as long as fuel is supplied.
- Fuel-cell vehicles use a completely different propulsion system from conventional vehicles that can be **two-three times more efficient.**

5.4. CITY COMPOST POLICY

Why in news?

Recently Parliamentary Standing Committee on Chemicals and Fertilisers suggested the government to review the progress of the policy on city compost (2016).

Key features of Policy are

- For increasing production and consumption of City Compost, provision for Market development assistance of Rs. 1500 per tonne of city compost has been added.
- To ensure that environment friendly quality city compost, eco-Mark standard has been made mandatory.

- Fertilizer companies will co-market City Compost along with chemical fertilizers.
- It will be mandatory for PSUs and Government Departments to use City Compost for their horticulture.
- Campaigns to create awareness among farmers about benefits of city compost and its uses.

Recommendations of the committee

- Review the progress of the policy at regular intervals to remove hurdles being faced by concerned agencies.
- Involve waste collectors and rag pickers from the informal sector for segregation of waste
- The centre should take up issue with states to ensure dysfunctional city compost plants are operational.
- It also pitched for involvement of Central Institute of Plastics Engineering and Technology (CIPET), for proper marketing of city compost and run multi-media campaign to create awareness among farmers.

5.5. SHAHTOOSH TRADE

Why in news?

Recently a parliamentary standing committee demanded lift of ban on shahtoosh trade in Kashmir.

Background

- Globally, shahtoosh trade was banned in 1975 under the Convention on International Trade in Endangered Species (CITES) to which India is a signatory.
- Shahtoosh wool is obtained from Tibetan antelope, Chiru which migrates from Tibet to Ladakh in summer
- It is listed in Schedule I of the India's Wildlife (Protection) Act. Its
 IUCN status is near threatened.
- The committee demands a removal of the ban because trade in shahtoosh provides livelihood security to people of kashmir specially the women.
- It further recommends that government should undertake rearing of the antelope so that trade becomes regulated and does not lead to exploitation.

5.6. TREE-LIVING CRAB SPECIES

- Scientists have discovered a new species of long legged, tree-dwelling crabs in Western Ghats of Kerala.
- The new species named Kani maranjandu after the Kani tribe in Kerala.
- The characteristic traits of the crab include the structure of its hard upper shell, its male abdominal structure and reproductive parts and diagnostic elongated walking legs, which no other genus has water holding hollows in large trees are essential for the survival of this unique species.

CITES (also known as the Washington Convention)

- It is a multilateral treaty to protect endangered plants and animals.
- It was drafted as a result of a resolution adopted in 1963 at a meeting of IUCN.
- It entered into force in 1975.
- Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species in the wild.

Kani tribe

- Found in tropical forests of the Agasthyamalai hills of the Western Ghats
- Traditionally a nomadic people with a population of almost 25,000.
- They have a rich tradition of using wild plants found in the region for health reasons, and their tribal physicians, called Plathi, hold the traditional medicinal knowledge.
- Important medicinal plant used is locally known as 'arogyapacha'.

5.7. CONGRESS GRASS

- Congress grass also known as 'Carrot weed' in India is a versatile, annual herb. Its scientific name is Parthenium hysterophorus
- It is native of Tropical America, and West Indies
- it is a tall growing, deep rooted, much branched dicotyledonous plant species attaining a meter height.
- It was introduced to India as a contaminant of food grains imported from Mexico. It was first reported in 1956
- Today this weed has been reported from entire India except the hilly states.
- Congress grass enjoys monopoly in its growing habitat due to allelopathic property.

Harmful Effects of Congress grass

 The pollen grains are allergic causing bronchitis, asthma, rhinitis, conjunctivitis, sinusitis, etc.

Control

- Biological control through Mexican beetle
- pesticides like Glaiphoset and matribuzin.
- It is harmful and even fatal to the livestock. The animals suffer from itching, fall of body hairs, discolouration of skins, inflammed udder etc.
- The presence of congress grass pollen grains inhibit fruit set in egg plant, tomato, chilly, beans and maize.
- It substantially reduces the nitrogen fixing ability of pulse crops.
- They don't have natural predators and hence their growth is generally unchecked.

5.8. MESOPELAGIC MAPPING

Importance of this zone

- The mesopelagic is home to 10bn tonnes of animals. Cropping a mere 1% each year would double the catch from the ocean.
- Acts as a carbon pump: pulls tonnes of that element out of the surface waters and into the depths, by its inhabitants that are in a state of perpetual migration, rising to the surface at night to feed, then returning to depths to escape predation.

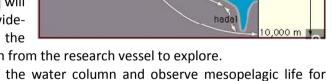
During the day, they release part of what they have consumed as faeces. Some of them also die. These faeces and bodies fall through the water column as what is known as marine snow, and accumulate at the bottom.

 The abundance of animals acts as a 'false bottom' which help submarines to go undetected by sonar beneath this zone.

Mesopelagic Mapping

- Until now, the only sensible way to probe mesopelagic activity has been by sonar.
- Now, robots are also being used for mapping- The largest of these devices is called **Deep See**. Research vessels will tow Deep See through the mesopelagic, gathering wideangle camera footage and environmental data. When the

probe spots something, a second robot will swim down from the research vessel to explore.



- This second device, **Mesobot** is designed to hang in the water column and observe mesopelagic life for extended periods to track animals up and down during their daily migration.
- Third type of mesopelagic robot will be disposable probes called **Snowclops**. These will sink through the water column, measuring the amount of marine snow at various depths.
- In future, observables in the mesopelagic zone can also be mapped by satellite.

5.9. NTCA ORDER AGAINST FOREST RIGHTS

Why in news?

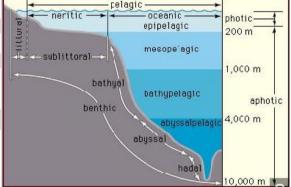
National Tiger Conservation Authority (NTCA) has ordered against the recognition of forest rights in 'critical tiger habitats' (CTH).

Background

- The order has been based on a premise that forest rights cannot be conferred inside 'critical tiger habitats' because guidelines for notification of 'critical wildlife habitats' which were envisaged under the FRA, 2006 had not been issued yet.
- This is confusing because the declaration of the two habitats is governed by two different legislations, which follow a two-step process–identification and notification.
- CTH are the core areas of tiger reserves

Mesopelagic Zone

- It is an aquatic layer of the ocean that runs from approximately 200m to 1000m below the surface, where little light penetrates, so algae do not live.
- It is home to largest number of vertebrates. There are bristlemouths, dragonfish, squid and swordfish, etc.



Critical Tiger Habitats versus Critical Wild Life Habitats

Critical 'tiger' habitats	Critical 'wildlife' habitats
Identified under the Wild Life Protection Act (WLPA), 1972	Defined only in the Forest Rights Act, 2006

Notified by state government in consultation with expert committee Notified with the consent of the Gram Sabhas and affected stakeholder

- Like CTH, the identification of CWLH is done based on scientific and objective criteria.
- CTH areas are required to be kept as inviolate for the purpose of tiger conservation without affecting the rights of forest dwellers. Same is the case with areas of CWLH for the conservation of wildlife but they mandatorily require settlement of forest rights under FRA.

no human settlement and usage. This inevitably implies that establishing CTHs as inviolate areas requires relocation of people living in such areas.

Sub-divisional officer (SDO) of Ramtek had

allowed fishing under community forest rights (CFR) to 425 Wadamba villagers living

on the fringes of Pench Tiger Reserve, which

'Inviolate' is a general term used to indicate

Criticism of the guidelines

- The order has no legal basis as NTCA has no jurisdiction over the rights of forest dwellers.
- Compromises on the rights of tribals can be made only where there is proof that their presence in these protected areas will create irreversible damage to the ecology.
- There are evidence that tribals have helped in tiger conservation, e.g. the Soligas in the Biligiri Rangaswamy Temple Tiger Reserve in Karnataka.
- The strictness of law is manifest only in excluding people but allows commercial projects in the CTH.

5.10. CLIMATE CHANGE REDIRECTS CANADIAN RIVER: STUDY

- The retreat of one of Canada's largest glaciers has changed the flow of a northern river almost overnight in an extreme case of what researchers call climate change "river piracy."
- For hundreds of years, the Slims carried meltwater northwards from the vast Kaskawulsh glacier towards the Bering Sea.
- But in spring 2016, a period of intense melting of the glacier meant the drainage gradient was tipped in favour of a second river (River

Water outflow Old direction New direction US Canada Alaska Fort Yukon Yukon river Kaskawulsh river Kluane river Anchorage • Kaskawulsh Kluane Lake alacier Alsek river

Similar order

Alsek), redirecting the meltwater to the Gulf of Alaska,

• It was found that a glacial barrier that once routed its flow northward into the Bering Sea had been breached in the spring.

5.11. UNIQUE MAHUA TREE

About the tree

- A 40-year-old ippa or mahua tree (Madhuca indica) exhibits two-colored foliage in the first month of leafing.
- The tree is in the hilly areas of Heerapur in Adilabad district of Telangana.

Why this uniqueness?

- Chromosomal aberration could have lead to unique feature.
- The green leaves sprout first and attain maturity about 15 days earlier while the red ones will become green after a few days.

Possible Threats

Recently, the tree escaped being cut down from the digging for Mission Bhagiratha drinking water project and laying of an electric line.

5.12. RENEWABLE ENERGY: RECENT DEVELOPMENTS

Renewable Energy: Background

Targets

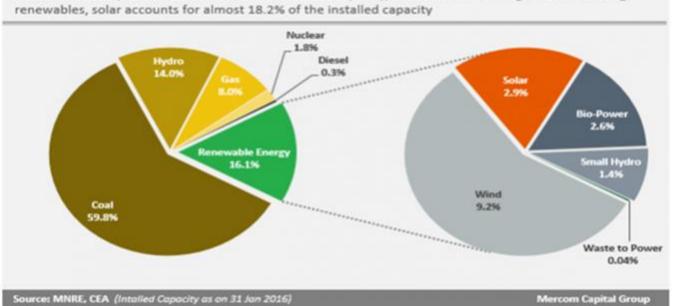
- At the Paris Climate Summit, India promised to achieve 175 GW of renewable energy capacity by 2022. This includes 60GW from wind power, 100GW from solar power, 10 GW from biomass and 5GW from small hydro projects.
- The target set for the various renewable energy sources for the next three years are (in MW):

Source	2016-17	2017-18	2018-19
Solar Power	12,000	15,000	16,000
Wind	4000	4600	5200
Biomass	500	750	850
SHP	225	100	100
Grand Total	16725*	20450*	22150*

Present Status

India - Installed Power Capacity Mix (%)

Renewables comprise 16.1% of India's total installed capacity, with solar accounting for 2.9%. Among



5.12.1. RECORD 5,400MW WIND POWER IN 2016-17

Relevant Facts

- India added a record 5,400 megawatts (MW) of wind power in 2016-17, exceeding its 4,000MW target.
- The leading states were Andhra Pradesh at 2,190MW, followed by Gujarat and Karnataka.
- In February 2017, solar power tariffs hit a record low of Rs 2.97 per kWh and wind power Rs 3.46 kWh.
- Now, in terms of wind power installed capacity India is globally placed at 4th position after China, USA and Germany.

5.12.2. WIND, SOLAR RESOURCES: LOCATION

Observations

- Wind resources are concentrated mainly in the western states (Gujarat, Maharashtra and Rajasthan) and southern states (Andhra Pradesh, Karnataka, Tamil Nadu and Telangana).
- Solar PV resources are distributed across several states, but Rajasthan, Gujarat, Maharashtra and Madhya Pradesh have the most resource potential.
- Constraint in accessing high voltage transmission infrastructure: 47% wind zones and two-thirds solar PV zones are more than 25 km away from existing substations with transmission voltage of 220 kV and above.
- About 84% of all wind zones are on agricultural land. It provides opportunities for multiple uses of land, but may also impose constraints on land availability.
- Only 29% of suitable solar PV sites and 15% of Concentrated Solar Power (CSP) sites are within 10 km of a surface water body, suggesting water availability as a significant siting constraint for solar plants

Scope for developing co-location for wind and solar generation

- The research also points out that about a quarter (28 per cent) of all solar PV zones overlap with wind zones, which means it is an opportunity for developing co-location for both.
- It will also be economical and easy to develop transmission extensions which can be used for both.

5.12.3. WIND POWER REFORM: PAYMENT SECURITY

Why in news?

- The guidelines released by Ministry of New and Renewable Energy address payment and evacuation issues in the wind power sector.
- Wind developers have suffered revenue losses due to unavailability of grid and payment delays from distribution companies.

Salient points of the guidelines

- Introduced a payment security mechanism that guarantees a partial compensation to wind power developers in case of back-downs or grid unavailability.
- Tariff paid by the state DisComs should be competitive, not just compared to the feed-in tariff being paid and solar tariff that is close to Rs 3.15 per unit.

Wind sector's woes

- The grid usually is unavailable when the wind power plants generate electricity and therefore, remains unutilised. Wind energy developers get paid only when the generated power is fed into the grid.
- Distribution companies or DisComs, have been deferring payments for electricity generators.
- Part of the reason for delayed payments is the lowering solar tariffs. Discoms do not want to pay Rs 5 for one unit of electricity when solar costs close to Rs 3 per unit.

5.12.4. NO DUTY ON SOLAR ROOFTOPS

Why in news?

• To encourage the use of rooftop solar power, Ministry of New and Renewable Energy (MNRE) has exempted customs and excise duties on materials used in solar rooftop projects of more than 100-KW capacity.

Need

- India has set up an ambitious 100 GW solar power target by 2022. Of the 100 GW, 40 GW is planned from the solar PV (photovoltaic) rooftop system. However, rooftop solar capacity till 2016 was about 1GW only.
- India has given a huge thrust to the solar rooftop sector as it does not require pooling of land or separate transmission facilities and has minimal technical losses, unlike ground-mounted solar projects.
- Rooftop projects also enable power distribution companies to meet their renewable purchase obligations and also helps them in managing daytime peak loads.

Implications of the move

- The move is expected to cut down the overall cost of power from rooftop projects. It will therefore promote rooftop solar installations across the country.
- It will aide domestic solar module manufacturing. Developers mostly use imported modules for solar installations as they are 8-10% cheaper. The duty will bridge the gap between imported and domestic.

5.13. ODISHA GETS GCF-APPROVED PROJECT

Why in news?

• Green Climate Fund (GCF) has recently approved a project of the National Bank for Agriculture and Rural Development (NABARD) in Odisha.

About the project

• The project entails the construction of a groundwater recharge system, as a concrete adaptation measure to ensure water conservation.

What is Green Climate Fund (GCF)?

- Created by the United Nations Framework Convention on Climate Change (UNFCCC), GCF was one of the main outcomes of the Cancun Summit held in 2010.
- It allocates its resources to low-emission and climate-resilient projects and programmes in developing countries.
- The Fund pays particular attention to the needs of societies that are highly vulnerable to the effects of climate change, in particular Least Developed Countries (LDCs), Small Island Developing States (SIDS), and African States.
- The fund currently has pledges worth US \$ 10.2 billion from various developed countries. Under the Paris Agreement, the floor of US \$ 100 billion by 2020 has been extended till 2025.

5.14. AMMONIA HOTSPOTS OVER AGRICULTURAL AREAS

Why in news?

• Researchers have discovered increased ammonia concentrations from 2002 to 2016 over agricultural centres in the US, Europe, China and India.

Probable causes

- Increased ammonia is linked to fertilizers, livestock animal wastes, changes in atmospheric chemistry and warming soils that retain less ammonia.
- The use of nitrogen fertilizers has grown worldwide, especially in those regions where they are subsidised.

Issues

- Ammonia concentration in the atmosphere over India is the highest in the world due to cattle population and excessive fertilizer use.
- Gaseous ammonia is a natural part of the Earth's nitrogen cycle, but excessive ammonia is harmful to plants.
- The harm caused by ammonia in water bodies is more serious, because it is toxic to aquatic organisms.
- It can also lead to algal blooms and "dead zones" with dangerously low oxygen levels in oceans.
- Ammonia plays a role in the transportation and enhanced deposition of acidic pollutants resulting in acidification of ground and water bodies

5.15. CHANGE POLICY TO STOP STUBBLE BURNING

Why this problem of stubble burning?

- The paddy-wheat system leaves farmers with the sowing time of less than a month between the two crops.
- The amount of stubble generated is higher than the harvest. Every four tonne rice or wheat leave behind about six tonne straw.

Impacts

- 1 tonne of straw burning can release up to 3 kg particulate matter (PM), 1,460 kg CO2 and 199 kg ash.
- Delhi and the rest of the NCR are exposed to severe levels of pollution.
- Burning leads to decline in the bacterial and fungal population in the top 2.5cm of the soil, increasing farmers' dependence on fertilizers.
- The government subsidises fertilisers. Burning stubble is equivalent to wasting subsidies.
- Air pollution is strongly linked to severe health impacts like pulmonary disorders, heart diseases, etc.

Reasons

- **Cost Factor:** The straw management equipment is costly and the process is time consuming. Also, the cost of stubble management is not taken into account while determining the minimum support price (MSP).
- Increasing mechanisation of agriculture: Stubble problem was not as severe when paddy was harvested manually because the farmers use to cut it as close to the ground as possible. Due to mechanisation the crop residue that remains in the field is of larger quantity.
- Time Factor: Delay in sowing means yield decline. This leaves very little time to clear the farm for sowing.
- Monoculture of wheat and paddy. In Andhra, bean gram and black gram are planted while rice stubble decomposes on its own.

Way ahead

- Agricultural experts said the government needed to address the issue holistically and not just by penalising farmers. National Green Tribunal has imposed a fine ranging from Rs. 2,500 to Rs. 15,000 depending on the farm size on farmers who indulge in burning stubble.
- Penalising farmers will not help because it is difficult to identify them. Moreover, the farmer is burning it out of compulsion.
- The government can support some mechanisation at the village level for taking out the straw and then putting it to use by, say, composting it. The farmer should see economic value in the exercise.
- The government should also procure pulses and oil seeds which are suitable for north India. This will change the cropping pattern.

5.16. CEMENT INDUSTRY: POLLUTION

Why in news?

 The cement industry failed to comply by the new pollution norms notified in May 2016 by the MoEF&CC, the deadline for which was 31st March, 2017.

Industry's arguments

• limited availability of technology suppliers and that technological and process-related change required at least two years to comply.

Are the new norms lenient?

The major pollutants released by cement industries:

- Oxides of Nitrogen
- Sulfur dioxide
- Particulate matter (PM10 and PM2.5)
- TSP (Total Suspended Particles)
- Carbon Monoxide
- Countries like South Africa, Australia, Germany and many other European countries have stipulated the much stringent emission limits for sulphur dioxide and nitrogen oxides.
- Besides, many countries have stipulated limits for mercury, which India is yet to do.
- Moreover, the new norms are lenient as compared to the August 2014 norms for normal cement plants and the July 2015 draft norms for co-processing cement plants.
- The limit of sulphur dioxide emitted from a cement plant was increased from 100 mg/Nm3 to 100-1,000mg/Nm3. The limit for nitrogen oxide was relaxed from 600 to 800 mg/Nm3 to 600-1,000 mg/Nm3.
- Moreover, the industry was given ample time to comply.

Conclusion

• Despite the fact that these norms are far more relaxed compared to those stipulated in other countries, Indian cement plants are trying to dilute the norms. They should prepare a pragmatic action plan and implement it in a time bound manner with proper consultation and approval from the ministry.

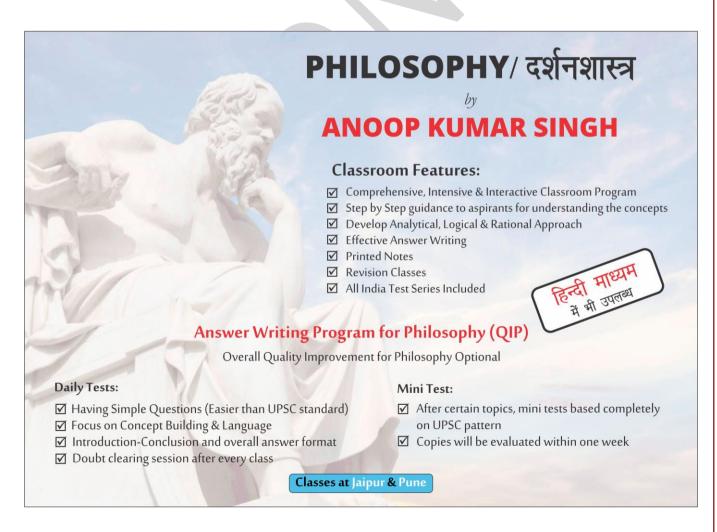
5.17. KHARAI CAMELS

Why in news?

For two days a week, the Kharai camels are left to themselves on a mangrove island in Kutch district of Gujarat.

About kharai camels

- Kharai Camel or Swimming Camels are found only in Gujarat's Bhuj area.
- Kharai Camel can live in both coastal and dry ecosystems.
- It grazes on saline / mangrove trees and is tolerant to high saline water.
- It can swim up to three kilometers into the sea in search of mangroves, their primary food
- They are bred by two distinct communities Fakirani Jats, the handlers, and Rabaris, who are owners.



6. SCIENCE AND TECHNOLOGY

6.1. THE RACE TO DESTROY SPACE DEBRIS

Why in News?

 In April 2017, various space agencies such as NASA, European Space Agency in Washington raised the concern regarding increasing space debris.

More on the issue

 Space junk travels at speeds up to 30,000 km an hour, which turns tiny pieces of orbital debris into deadly shrapnel that can damage satellites, space shuttles, space stations and spacecraft with humans aboard.

What is Space Debris/Orbital Debris?

 Space debris encompasses both natural (meteoroid) and artificial (man-made) particles. Meteoroids are in orbit about the sun, while most artificial debris is in orbit about the Earth. Hence, the latter is more commonly referred to as orbital debris.

Kessler syndrome

 The term is associated with Space Debris, which used to describe a self-sustaining cascading collision of space debris in LEO (Low Earth Orbit).

- Various space agencies have to manoeuvre their space programme in light of increasing space debris thus adding to extra economic and human resource on space programme.
- International guidelines suggest removing space crafts from low-Earth orbit within 25 years of the end of their mission. However, only 60 percent of missions follows the guidelines.
- Moreover, space-scientists concern about the inexpensive, tiny satellites called CubeSats which are going to add space junk around 15% in next 10 years.
- Committee on the Peaceful Uses of Outer Space, and Inter-Agency Space Debris Coordination Committee
 (IADC) advocates Global mitigation measures takes many forms; including preventing the creation of new
 debris, designing satellites to withstand impacts by small debris, and improving operational procedures such
 as using orbital regimes with less debris, and predicting and avoiding collisions.

Committee on the peaceful uses of Outer space

- It is **an ad-hoc committee under United Nation** set up by the General Assembly in 1959 to govern the exploration and use of space for the benefit of all humanity: for peace, security and development.
- The committee encouraging space research programmes, and studying legal problems arising from the exploration of outer space

International Space debris Committee

• It is an international governmental forum for the worldwide coordination of activities related to the issues of manmade and natural debris in space to facilitate opportunities for cooperation in space debris research, to review the progress of ongoing cooperative activities, and to identify debris mitigation options.

6.2. SURVEY OF INDIA

Why in News?

 Survey of India launched a new web portal called 'Nakshe' on its 250th anniversary recently.

Need

 Currently, organisations and people who want specific maps need to fill forms and sometimes visit the Survey of India. Several times, Ministries themselves have to pay to get certain maps.

National Map policy

- The New Policy envisages two series of maps- the Defence Series Maps (DSMs) and the Open Series Maps (OSMs).
- The DSMs will be for exclusive use for defence forces and authorized Government Departments. Their policy would be determined by the Ministry of Defence.
- Policy on OSMs will be the responsibility of Survey of India/Department of Science and Technology.
- OSMs can be disseminated by Survey of India through an agreement for specific end use. The user can make value addition to these maps and can share the information after permission from the Survey of India.

About Nakshe portal

• Topographic maps or Open Series Maps (OSM) would be available for free download on the 'Nakshe' portal.

- Maps would be available in pdf format on 1:50000 scale **through Aadhar enabled user authentication** process. Aadhar is there to make sure that only Indians are able to access them.
- It is in conformity to the government's Digital India programme.

About Survey of India

- It is the principal mapping agency of India formed in 1767 headquartered in Dehradun.
- It prepares map for both civilian and military purposes.
- It is headed by Surveyor General of India.
- It is the oldest scientific department in India functioning under the Department of Science and Technology.

Survey of India to re-measure Mt. Everest

- 1855 India became the first country under Sir George Everest (Surveyor General of India) to have declared the height of Mount Everest.
- After the Earth Quake (2015) the Survey of India, Ministry of Science and Technology with Nepalese government has proposed to re-measure Mount Everest.
- Currently, its height is 8848m above sea level.
- It will be measured using GPS with corrections applied from a INDGEOID mathematical MODEL developed recently.
- It has been oriented to meet the needs of defense forces, planners and scientists in the field of geosciences, land and resource management.
- It creates various types of maps like:
 - Topographical map: These are maps containing natural and man-made geographical features including terrain or topography. These are used by the administrators and town planners for development planning.
 - o Road map: It is used for public transport. Also, it highlights some important tourist places within it.
 - o **Antique map:** It is used to depict the past historical and cultural territories.
 - **Guide map:** It is a map of major town and places of tourist's interests. In the absence of other large scale maps, **town planners also make considerable use of these maps**.
 - o **Project map:** It serves the needs of project authorities. The scale and contour interval depends upon the nature of the terrain and the purpose of the Survey.
 - o **International map**: It is prepared according to international specifications and is used for regional planning.

6.3. DATA EXCLUSIVITY

What is it?

- This refers to exclusive rights, granted over the pharmaceutical test data submitted by companies to drug regulatory authorities for obtain market authorisation. It means that information concerning a drug's safety and efficacy is kept confidential for a period of, say, five or ten years.
- It is a form of legal monopoly protection for a drug, over and above the patent protections. This is given expressly to compensate for the investment made during clinical trials. It implied that regulators cannot approve a similar drug with similar data for the next five years.

Arguments in favor

• It will incentivize the efforts to bring new drugs in market as their costs incurred in expensive and time consuming preclinical and clinical trials will be recovered.

Arguments against it

• It is beyond the mandate of TRIPS agreement and would prevent drug regulators to use the data, submitted by Originator Company, for approving bioequivalent versions of the same drug, which would prevent generics from entering into market.

TRIPS plus measures

It means going beyond the TRIPS provisions. TRIPS plus provisions are frequently pushed as a part of free trade agreements between developed and developing countries. Some such provisions are:

- Data exclusivity one of the most worrying demands in RCEP negotiations (covered in detail in subsequent subsection)
- Patent term extensions are given to compensate the company for delays in processing patent applications. A patent term extension will give another fiveyear monopoly to the innovator company.

Many developed countries have even signed Anti-Counterfeiting Trade Agreement (ACTA) which establishes international standards for IPR enforcement outside WTO and WIPO.

- It would prolong monopoly even after expiry of 20-year period and will lead to evergreening of patents negating the impact of Section 3(d) of patent act and blocking of compulsory licensing.
- Even for establishing bioequivalence, clinical trials would be repeated on human subjects which is immoral and unethical.
- Giving exclusivity just on the basis of money spent would set bad precedent for other industries which may now claim IP-like rights.

Way forward

The government should held firm its stand on "TRIPS plus" and not succumb to the pressure which may lead to evergreening of patents and blocking of compulsory licenses and severely undermine public interest.

6.4. CERN SEES "INDICATIONS" OF NEW PHYSICS

- The Large Hadron Collider experiment in CERN has shown a sign that contradicts a basic assumption of the Standard Model.
- At the subatomic level, there are two types of processes that have been compared by the physicists at LHC. One is the decay of what is called a B meson into an excited K meson and a pair of muons (muon-plus and muon-minus). The other is where the B meson decays into K meson giving an electron-positron pair.
- According to the standard model, since the muons and electrons are identical except for their masses, the rates of these two reactions should be the same. However, the carefully done experiment finds the rates are quite different.

Meson

In particle physics, mesons are hadronic subatomic particles composed of one quark and one antiquark, bound together by the strong interaction.

Muon

The muon is an elementary particle similar to the electron, with an electric charge of -1 e and a spin of 1/2, but with a much greater mass.

6.5. PAPER DEVICE CHARGED BY BODY MOVEMENTS

Why in News?

- Scientists have developed a light-weight, paperbased device that can harvest energy from body movements to power sensors and watches.
- The finding is based on triboelectric nanogenerators (TENGs) system which makes the energy through Triboelectrification.

More on the News

- Device's energy-storing super capacitor element is made of gold and graphite-coated sand paper.
- Inner surfaces, made of paper and coated in gold and a fluorinated ethylene propylene film, comprise the TENG energy harvester.

What are TENGs?

- Triboelectric nanogenerator (TENG) is based on organic material to convert mechanical energy into electricity. It is a sensor that directly converts a mechanical triggering into a self-generated electric signal for detection of motion, vibration, mechanical stimuli, physical touching, and biological movement.
- It can be applied to harvest all kinds of mechanical energy available in our daily life, like motion, walking, rotation, wind, automobile, flowing water, etc.
- TENG is based on the conjunction of triboelectrification and electrostatic induction, and utilizes the common materials available in daily life, such as papers, fabrics, PTFE, , Al, and PVC
- Pressing and releasing it for few minutes charged it to 1 volt, enough to power a remote control, or a watch.

6.6. SMALL SATURN MOON CAN SUSTAIN LIFE: NASA

Why in News?

• On April 2017, NASA claimed on the evidence generated by **Cassini Mission** that Enceladus, Saturn's icy moon, contains the right chemicals to support life.

More on the News

• The Cassin Mission has found the eruption of hydrogen from Underground Ocean underneath the icy crust of Enceladus.

The presence of hydrogen in the jets makes NASA scientists suspect there are geothermal geysers on Enceladus's ocean floor which could be home to microbes that use the chemical energy of hydrogen and carbon dioxide to produce methane and In brief Nasa's Cassini mission

energy for life.

Some other Mission in Space for water

- Curiosity Mars Rover discovered an ancient streambed that existed amidst conditions favourable for life and water.
- Mission Europa is in search for icy crystal, lakes on outer cell of the Jupiter Moon Europa.
- Dawn mission is currently studying Ceres for water, which is the largest body in the asteroid belt between Mars and Jupiter.
- Juno mission will measure the assumption of water socked up by the Jupiter planet.
- Ganymede mission is in search of ice and water crystal in between the crust and core of Ganymede (largest Moon of Jupiter and in our solar system).

- Launch date: 15 October 1997
- End date: 15 September 2017
- Target: Saturn

An ambitious 20-year mission to gain a better understanding of Saturn, its rings, its magnetosphere and its icy moons.

By sending Cassini - a sophisticated robotic spacecraft - to orbit the ringed planet and study the Saturnian system in detail.

- 1 Cassini's initial four-year mission (2004-2008)
- 2 The first extension, called the Cassini Equinox Mission (2008-2010)
- 3 The second extension, called the Cassini Solstice Mission (2010-2017)
- 4 To conclude, the Cassini spacecraft will carry out a daring set of orbits called the Grand Finale (2017)

The Cassini orbiter carries 12 instruments capable of "seeing" in wavelengths the huma eye can't, and of "feeling" things about magnetic fields and tiny dust particles that no human hand could detect. Cassini also carried a probe called Huygens, which parachuted to the surface of Saturn's largest moon, Titan, in January 2005 and transmitted a treasure trove of data.

Source: Nasa

6.7. SCIENCE CITIES SCHEME

Why in News?

- National Council of Science Museums (NCSM) under Ministry of Culture has set up a Science City at Kolkata and Regional Science City at Lucknow.
- Pushpa Gujral Science City at Kapurtala, Punjab and Gujarat Science City at Ahmadabad, Gujarat have also been set up.
- Moreover, proposal for setting up of science city in Assam been approved.

About Science Cities Scheme

- It provides for setting up of Science Cities in all the states of
- States desirous of setting up a Science City under this Scheme have to provide land, share the cost of setting up of facilities and maintain a corpus for its upkeep and maintenance.
- There is **no time limit** for setting up of Science Cities in all States/Union Territories.

National Council of Science Museums

- Established in April 1978, it is autonomous Organization under the Ministry of Culture.
- NCSM, headquartered in Kolkata, has its network own of 25 science museums/centres in India.
- Central Research & Training Laboratory (CRTL) in Kolkata, is the Council's central hub for professional training, research and development.
- Today, NCSM forms the largest network of science centres and museums in the world.
- In 2011, NCSM has formed a fully owned non-profit company called "Creative Museum Designers" for development of museums and centres than museums.
- NSCM also conduct workshops, exhibitions, lectures, etc. to popularize science and educate common people.
- In case of approved projects, the time frame for completion of the project as per the Scheme is about 54 months for Science Cities, 33 months for Regional Science Centre and 27 months for Sub-Regional Science **Centre** from the date of start of the project.
- The Science Cities/Centres projects are taken by NCSM:
 - ✓ Depending upon availability of resources.
 - ✓ Project handling capacity of NSCM.
 - ✓ Existing level of science centre activities in that state.

Objectives for establishing Science Cities

- To portray the growth of science and technology and their applications in industry, human welfare and environment.
- To promote and enhance public understanding of the culture of science and technology.
- To inculcate and sustain Scientific Awareness & Scientific Temper.
- Supporting curriculum based education at school & college level by imparting teachers training.
- To **assist** to universities, technical institutions, museums, schools and colleges in planning and organizing science museums and also provide **training to personnel** for museum profession.

6.8. SUPER PRESSURE BALLOON TECHNOLOGY

Why in News?

- NASA has successfully launched its stadium sized super-pressure balloon from Wanaka, New Zealand
- This is the **third consecutive year** when NASA launched the long-duration, heavy-lift **super-pressure balloon**.

About Super Pressure Balloon Technology

- The balloon is made from **polyethylene film** which is stronger and more durable with a potential to float continuously for **100** or more days in the **southern hemisphere's** mid-latitude band.
- It also carries a payload (cosmic ray fluorescence detector) weighing 2495 kg by International Extreme Universe Space Observatory on a Super Pressure Balloon (EUSO-SPB).
- The **main purpose** of this mission is to test and validate super pressure balloon technology having long duration flight.
- The detector will also help in detecting **high energy cosmic rays** originating from outside our galaxy system which when interact with **nitrogen molecules** present in earth's atmosphere creates a **UV Fluorescene lights.** This will help in solving the source of these mysterious **high energy particles.**
- These scientific balloons act as a **critical launch vehicles** offering **low-cost**, **near-space access** for scientific payloads thus testing and validating new technologies and scientific instruments.

6.9. EXOPLANET: GJ 1132B

Why in News?

- Recently, Astronomers detected an atmosphere around an Earth like planet known as GJ 1132b, which is 1.4 times the size of earth and is at a distance of 39 light-years from earth.
- **GJ 1132b** orbits the **red dwarf** star **GJ 1132** in the southern constellation **Vela**. The parent star **GJ 1132** is much **smaller**, **cooler** and **dimmer** than our Sun.
- As per the astronomers this super-earth is cloaked in a thick layer of gases that are either water or methane
 or a mixture of both and is tidally locked (also known as gravitational locking or captured rotation) such
 that one side is always facing its parent star.
- It circles its parent star superfast, completing a single "year" in about 1.6 Earth days.
- This is the first time that an atmosphere has been detected around an Earth-like planet.
- This observation is made using telescope at the **European Southern Observatory** in **Chile**.

6.10. H1N1

Why in News?

- Swine Flu has claimed more than 100 lives in Maharashtra since January 2017.
- Changing climate and the difference in maximum and minimum temperatures in the state is cited as one of the reasons for spread of the virus. This is creating favourable environment for virus to thrive.

About H1N1 (Also known as Swine Flu)

• It is a **contagious respiratory disease** caused by **Type A strains** of the **Swine Influenza virus** which enters body through inhalation of droplets or is transferred from a contaminated surface to eyes, nose or mouth.

- The spread of virus is temperature dependent.
- It is called swine flu because in the past, the people who caught it had direct contact with pigs.
- Causes/means of spread: When people who have it cough or sneeze, they spray tiny drops of the virus into the air. If anyone come in contact with these drops or contaminated surface, one can catch H1N1 swine flu.
- **Symptoms**: similar to most influenza infections: Sore throat, cough, fever and chills, body ache, headache, vomiting, nasal secretions, fatigue and acute gastrointestinal symptoms like diarrhea.
- People at risk: Elderly people; young children; pregnant mothers; people with weak immune system.
- **Preventive measures:** Maintaining oral and personal hygiene, avoid eating pork and its products, wash hands before eating, avoid crowded place and close contact with sick people, etc.
- Treatment: Antiviral drugs that are used to treat seasonal flu also work against swine flu like Oseltamivir (Tamiflu), Peramivir (Rapivab), Zanamivir (Relenza). But these must be taken under medical supervision.

6.11. BELLE II PROJECT

Why in News?

- Recently, High Energy Accelerator Research Organisation (KEK) successfully completed the integration of 1400 tons Belle II detector with SuperKEKB accelerator.
- This experiment is being carried out at KEK in Tsukuba, Ibaraki Prefecture, Japan.

About Belle II Project

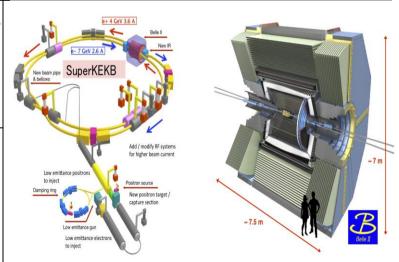
- This experiment explores the **mysteries** of the beginning of the universe by observing the **various elementary particles** generated from high energy **electron-positron collisions**.
- The Belle II detector precisely measures elementary particle interactions artificially created with the upgraded SuperKEKB accelerator. It will also provide measurements of the direction and momenta of these newly produced particles.
- Compared to earlier Belle experiment, Belle II will allow the collection of much larger samples with much improved measurement precision.
- Main aim of the experiment is to find the "significant deviation" from Standard Model of particle physics
 and thus determine which of the many proposed new theories best describes world of elementary particles.
- It is grand collaboration of 700 scientists from 23 countries including significant Indian participation.
- The fourth layer of the six-layer, highly sensitive particle detector, has been built by Indian scientists, led by **Tariq Aziz** and **Gagan Mohanty.** Both of them are from Tata Institute of Fundamental Research, Mumbai.

High Energy Accelerator Research Organisation

- It is a national organization whose purpose is to operate the largest particle physics laboratory in Japan.
- Established in 1997, it is situated in Tsukuba of Ibaraki prefecture, Japan.

Super KEKB Accelerator

- It is an **upgraded version** of the earlier KEKB.
- This particle accelerator will produce electron-positron collisions at a much higher rate thereby creating instantaneous luminosity 40 times higher than in earlier KEKB.



6.12. BRABO ROBOT

Why in News?

• TAL Manufacturing Solutions Ltd, a subsidiary of TATA Motors Ltd. has unveiled **India's first** ever industrial robot called **'BRABO'**, short for **"Bravo Robot"**.

- Other than the motors and drives for the robo arm, which are sourced from Italy, all the other parts of BRABO are manufactured in India.
- It is an Articulated robot, ie those Robots which have one or more rotary joints allowing it to perform full range of precise movements,.
- Recently BRABO acquired **CE (European Conformity) certification** that will enable **TAL** to export it to Europe and the US.
- It has also applied for an Intellectual Property (IP) certification for BRABO.

Target Industries

- Though BRABO has been made to target primarily micro, small- and medium-sized enterprises (MSMEs) but it is also relevant for large manufacturing industries.
- However, it primary focus is on sectors such as automotive, electronics, logistics, food, packaging and pharmaceuticals.

6.13. FIRST GLOBAL INTERNET ATLAS

Recently, USA scientists have developed first Global Internet Atlas, including a detailed map of Internet's physical structure in India.

- Internet's physical structure is a collective term for all the hardware that is essential in operation of Internet. Ex: Submarine cables under ocean connecting continents, servers storing data, optical fiber, etc.
- Mapping of Internet's physical infra will help in:
 - Guarding it from terrorist attack or extreme weather conditions.
 - Assessing and preventing the problem of shared risk as nowadays physical infrastructures are shared by multiple networking entities.
 - Stakeholders (like service providers) boost performance.
 - Understanding **evolution** of Internet.



Internet Atlas of USA

6.14. NOVEL GRAPHENE ELECTRICAL CONDUCTOR

Why in news?

Researchers from the Indian Institute of Science (IISc), Bengaluru have experimentally produced a new type of electrical conductor that was theoretically predicted 20 years ago.

About the discovery

 A single or a few layer thick graphene had shown high electrical conductivity at room temperature. The electric current path is along the zig-zag edge(edge of honey comb lattice structure of

graphene) of the graphene layer.

Graphene

It is extracted from graphite. Whereas graphite is 3D crystalline arrangement, graphene is a 2D crystal only an atom thick. Important properties

- Very good conductor of electricity and heat
- 200 times stronger than steel
- Very light
- Perfectly transparent
- Impermeable to gases

Many groups over the world have been trying to access these edges since the emergence of graphene in 2004, but have been largely unsuccessful because when current flows, it flows through both the edge as well as the bulk.

6.15. SMART GLASSES THAT MIMIC EYE LENS

- The glasses, developed by researchers at the University of Utah, are designed to mimic the behaviour of the eye's natural lens - flexing to focus on wherever an individual is looking: near, far or in-between.
- Glasses are lenses made of glycerin, a clear thick liquid sandwiched between flexible membranes.

- The lenses are mounted into frames that have an electromechanical system that causes the membranes to bend to adjust their focus.
- This is similar to adjustments by natural eye lens to change focus while viewing objects at varied distances.
- The ability of the lens to flex and bend allows the single lens to act like multiple lenses.

6.16. IDEAS - SOLVE A PROBLEM, WIN RS 1 CRORE

- The Centre is set to launch a scheme for students from higher educational institutions to volunteer to offer innovative, original and practical solutions to problems facing the country and win Rs 1 Crore.
- The Scheme to be called **IDEAS**, or Innovations for Development of Efficient and Affordable Systems.
- HRD Ministry has identified some areas in which the problem-solving skills of students will be tested.
- These are affordable healthcare, computer science and ICT, energy (solar/renewable), affordable housing, healthcare, agriculture, education, water resources, defence, cyber security, environment etc.

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7. SOCIAL

7.1. NATIONAL HEALTH POLICY 2017

Cabinet has recently approved National Health Policy (NHP) 2017 to address the current and emerging challenges in terms of socio-economic changes and epidemics since the last NHP in 2002.

Shifts seen in new policy

- <u>From communicable to non-communicable diseases:</u> NHP recognizes need for state intervention to control NCDs as they are reason for more than 60% death in India. Thus policy advocates pre-screening and sets the target to reduce premature mortality via NCDs by 25% by 2025.
- <u>Collaborating & regulating the private sector</u> which has grown tremendously since 2002, such that over $2/3^{rd}$ services are provided by it. Although policy seems to be **patient-centric**, as it proposes
 - ✓ National health care standards organization (NHCSO) to lay down standards and protocol
 - ✓ Tribunals for redressal of grievances
- Shift from sick-care to wellness: NHP seeks to invest in preventive healthcare. For this,
 - ✓ early screening and diagnosis have been made a public responsibility
 - ✓ commitment to **pre-emptive care** to achieve optimum levels of child and adolescent health through school health programmes and focus on health and hygiene in curriculum
 - ✓ advocates 2/3rd or more allocation of health budget for Primary Health Care
 - ✓ assuring comprehensive primary health care through the Health and Wellness Centers'
- <u>Intersectoral approach</u> involving various ministries such as MoEf, MoHWS, MoA, MoUD, MoHRD, MoWCD etc.
- <u>Urban Health Case:</u> prioritizes addressing the primary health care needs of the urban population with special focus on poor populations, convergence among the wider determinants of health air pollution, vector control, reduction of violence and urban stress.

Provisions of health policy, its positive impact and related issues

Provisions	Positive impact	Related Issues
Strengthening role of public sector by increasing public health spending to 2.5% of GDP by 2025 from current 1.15% States should spend 8% of more of their budget towards health by 2020	Will increase spending which has become nearly stagnant in recent years.	 Lack of capacity to use higher level of funds Still Much lower than even other developing countries' spending on health Central budgets also must reflect steady rise annually
Affordable quality healthcare for all by	Reduce disease burden of	• Would require more
ensuring following	India (from current 1/5 th	human resources and
 Universal access to drugs and diagnostics, 	of the burden in world)	funds
emergency and essential health services	would bring people from	
• providing every family with a health card	diverse professional	doctors and nurses and
for PHC services	backgrounds	does not confront the
• secondary and tertiary care services	acknowledging need for	pervasiveness of fake
through a combination of public hospitals	multi-disciplinary	doctors constituting 'half'
& strategic purchasing in healthcare	approach	of the doctors here (WHO
deficit areas from accredited non-	Enable detection of state-	report)
governmental healthcare providers	specific health hazards	District hospitals need to
Establish public health management	and contain them before	be strengthened and sub-
cadre in all states	they spread.	district hospitals need to
		be upgraded
Mainstreaming AYUSH systems by three-		
dimensional integration encompassing cross	claims of traditional	to allopathic professionals

re	ferrals, co-location and integrative practices	n	medicine	focus	sing	on
ac	ross systems of medicines in both rural and	р	oluralism	and	dra	wing
ur	ban areas.	u	upon dive	rse sy	stem	s of
		n	medicine.			

Other issues with NHP 2017

- It leaves too much to the states on maintaining standards.
 Present situation gives free hand to states to reject even
 necessary acts such as The Clinical Establishments Act 2010
 was passed by Parliament with the aim of regulating clinical
 standards and ending quackery.
- It does not speak about social determinants of health
- It does not talk of public health education (which is outside MCI mandate) it just talks about medical education, paramedical education etc.
- Various progressive measures under Draft NHP 2015 such
 as Right to Health, increasing public spending by 2020 and imposing health cess have been ignored.

Targets under NHP 2017

- Increasing life expectancy to 70 years from 67.5 years by 2025
- reduce infant mortality rate to 28 by 2019
- reduce under five mortality to 23 by 2025
- reduce Total Fertility Rate to 2.1 at the national and sub-national levels by 2025
- Maternal Mortality Ratio from current levels to 100 by 2020
- Reduce neo-natal mortality to 16 and stillbirth rate to "single digit" by 2025.

Thus, to achieve SDG on health, i.e., health and well-being to all by 2030, there would be need for greater and stronger Centre-state coordination and commitment for effective implementation.

7.2. HIV/AIDS BILL

Why in News?

• Parliament has recently passed HIV and AIDS (Prevention and Control) Bill.

Facts

- AIDS is a leading cause of death among women of reproductive age, adolescents, Sex workers, transgenders etc.
- Punitive laws, stigma, human rights violations, social exclusion, gender inequality, lack of sexual and reproductive health services and exclusion from decision making process aggravate their vulnerability.
- The **adult HIV prevalence** at national level has steadily declined from 0.34% in 2007 and 0.28% in 2012 to 0.26% in 2015.

Provisions of the Bill

- It aims to:
 - Prevent and control the spread of HIV and AIDS
 - Prohibit discrimination against persons with HIV and AIDS
 - o Provide informed consent and confidentiality in treatment
 - Place obligations on establishments to safeguard their rights
 - Creates mechanisms for redressing their complaints.
- It **lists out various grounds of discrimination** against HIV positive persons like **denial, termination, or unfair treatment** in employment, education, health care, housing, standing for public office, and insurance.
- It prohibits individuals from publishing information or advocating feelings of hatred against HIV positive persons and those living with them.
- No HIV test, medical treatment, or research will be conducted without an informed consent. **Only an informed consent or a court order can reveal this information**.
- Establishments keeping records of information of HIV positive persons shall adopt data protection measures.
- Central and state governments shall take measures to
 - o Prevent the spread of HIV or AIDS by providing anti-retroviral therapy and infection management
 - Facilitate their access to welfare schemes especially for women and children
 - Formulate HIV or AIDS education communication programmes
 - Lay guidelines for the care and treatment of children with HIV or AIDS.

- An ombudsman shall be appointed by each state to inquire into complaints related to the violation of the Act. It shall submit a report to the state government every six months stating the number and nature of complaints received and the actions taken.
- A person between the age of 12 to 18 years who is mature in managing the affairs of his HIV or AIDS affected family shall be competent to act as a guardian of another sibling below 18 years of age.
- Every HIV infected or affected person below the age of 18 years has the right to reside in a shared household and enjoy the facilities of the household.
- Cases relating to HIV positive persons shall be disposed off by the court on a priority basis. The proceedings be conducted by suppressing the identity of the person and in camera. .

Steps taken by Government of India

- Government launched a Central Sector Scheme National AIDS Control Programme (NACP).
- India has successfully achieved the 6th Millennium Development Goal (MDG 6) of halting and reversing the HIV epidemic.
- For preventing HIV/AIDS transmission from mother to child,
 - Prevention from Parent to Child Transmission (PPTCT) programme have been integrated with the RCH programme.
 - PALS (PPTCT ART Linkages Software) System has also been launched to maintain details of all HIV positive pregnant and breast feeding women and their newborn babies.

90:90:90 Strategy

the AIDS epidemic.

HIV status (90% diagnosed)

on HIV treatment)

- Government would be implementing the 90:90:90 strategy as adopted by UNAIDS.
- HIV Sensitive social protection portal has been launched to help officials and counselors.
- India has extended support to the African **countries** in their fight against which reflects India's global commitment.

Challenges in HIV Programme

- Capital: Many developed countries have reduced
- 90% of all people receiving antiretroviral therapy will have viral suppression (90% suppressed)

It is a new HIV treatment that lays the groundwork to end

90% of all people living with HIV will know their

90% of all people with diagnosed HIV infection

will receive sustained antiretroviral therapy (90%

- their financial commitments to developing countries. They argue that with booming growth, India should become a donor itself.
- Removing Stigma: needs to be removed by community awareness.
- Medicine stockpiles: there have been instances of shortage of medicines related to HIV/AIDS. Eg. Children friendly Lopinavir Syrup production was stopped by CIPLA since government failed to clear its dues.

Way Forward

- With dearth of funding, India has started to integrate the HIV/AIDS programs into primary health missions.
 - For instance, 6 components of the NACP III were merged with NRHM in 2010 like Integrated Counselling and Testing Centres; prevention of parent-to-child transmission, Antiretroviral treatment etc.
- India has also started allocating more budgetary capital to fight HIV/AIDS.
- Centre and States would have to cooperate and set targets within specified timelines.
- A focus on injectable drug users also needs to increase to prevent the transmission of HIV/AIDS.
- A streamlined process of procurement and storage of medicines related to HIV/AIDS. Eg. Tamil Nadu model of direct procurement from manufacturers prevents any leakages and also reduces drug prices.

7.3. PARTICULARLY VULNERABLE TRIBAL GROUPS

Why in News?

A recent Anthropological Survey of India (AnSI) study 'PVTGs - Privileges and Predicaments' has revealed that no base line surveys have been conducted for more than half of the Particularly Vulnerable Tribal Groups (PVTGs) in India.

Anthropological Survey of India (1945)

- It is involved in anthropological studies like studying the tribes, collecting samples of tribal art, study and preserve the human skeletal remains etc.
- It operates under the Ministry of Culture.
- It is headquartered in Kolkata.

• Base line surveys help identify the habitat and socio-economic status, so that development initiatives are implemented for communities.

Findings of the report

- State governments should conduct such surveys to have data on demographic and socio-economic status of the PVTGs and remove repetition and overlaps in data.
 - E.g. Mankidia and the Birhor in Odisha refer to the same group and are mentioned twice.
 - Some PVTGs are distributed in more than one State and are recognized multiple times like Birhors spread in 4 States.
- The highest number of PVTGs are found in Odisha (13) followed by Andhra Pradesh (12)).
- All the four tribal groups in Andaman and one in Nicobar Islands are PVTGs.
- There are regional and State-specific variations in welfare schemes for PVTGs -
 - While Odisha has exclusive micro-projects for the PVTGs, there are none such for the PVTGs in Gujarat.
 - Sometimes micro projects extend only to some blocks of district and not in others.
- There is a huge variation in population of PVTGs
 - Senteneles (Andaman) have the smallest population.
 - In the mainland, Toto of West Bengal and Toda of Tamil Nadu have less than 2000 persons.
 - o Saharia of MP and Rajasthan are the largest with population more than 4 lakhs.
- **Literacy rate has gone up** from single digit to 30 to 40 % in some PVTGs. Female literacy rate is still considerably lower compared to male counterpart.
- There has been a **considerable increase in the age of marriage among PVTGs** with girl child marriage decreasing significantly.

7.4. NATIONAL ACTION PLAN ON ANTIMICROBIAL RESISTANCE

Why in News?

- India recently has launched National Action Plan on Antimicrobial Resistance.
- Government also signed a "Delhi Declaration" to strategize collectively with WHO, FAO and other UN agencies to implement the national and state action plans on Anti Microbial Resistance.

Need

- Antibiotics used to treat diseases are becoming ineffective due to **ineffective management of antibiotics** in human health, animal food, medical waste etc.
- Government still does not have a planned strategy to counter this rising problem.

Background

- In 2015, the **WHO released a global action plan on AMR** urging member countries to develop national action plans by May 2017.
- In March 2017, a draft national action plan was prepared by the National Centre for Disease Control calling for surveillance of antibiotic use in humans, animals and environment.

PVTGs

- In 1973, the **Dhebar Commission** created Primitive Tribal Groups (PTGs) as a separate category, who are less developed among the tribal groups. They were later renamed as PVTG.
- States/UTs submit proposals to the **Central Ministry of Tribal Welfare for identification of PVTGs**.
- Some basic characteristics of PVTGs are:
 - Mostly homogenous
 - A small population
 - Relatively physically isolated
 - Primitive Social institutions
 - Absence of written language
 - Relatively simple technology and a slower rate of change
- Their livelihood depends on food gathering, Non Timber Forest Produce, hunting, livestock rearing, shifting cultivation and artisan works.
- Scheme for Development of Primitive Vulnerable Tribal Groups (2008)
 - o It identifies 75 PVTGs as the most vulnerable among the Scheduled Tribes.
 - It gives state governments flexibility in planning initiatives.
 - Activities covered include housing, land distribution and development, agriculture, roads, energy, etc.
 - Additional Funds are available for activities not already funded by any other Scheme of the centre/state.
 - A long term Conservation-cum-Development plan for five years for each PVTG to be established by States. The Scheme is funded entirely by the Central government.

Features

- India's action plan has objectives of
 - Enhancing awareness among masses and strict adulteration laws.
 - Strengthening surveillance
 - Conducting national-level surveillance of antibiotic resistance in humans, animal and the environment
 - ✓ **Surveillance of antibiotic use** in humans and animals
 - ✓ Monitoring antibiotic residues in food animals and the environment.
 - Improving rational use of antibiotics
 - ✓ Restricting and phase-out of non-therapeutic use of antibiotics in food animals Eg. Phase out growth promoters in animal foods
 - ✓ Restricting and regulating feed and feed premix containing antibiotics.
 - ✓ Eliminating use of critically important antimicrobials for humans in food animals.
 - Regulating online sale and ensure prescription sale and appropriate labeling.
 - Reducing infections
 - Reducing environmental spread of AMR through necessary laws and surveillance of waste from animal farms, food processing, pharmaceutical sector and health care facilities.
 - Promoting policies and research in anti microbial resistance.
 - ✓ Introduce programmes to support small and mid-size animal farmers to help them reduce antibiotic use
 - ✓ Issue pond-health cards and install necessary systems to prevent infection, support biosecurity and waste management.
 - ✓ Develop a separate policy for freshwater/inland fisheries
 - ✓ Establish an independent veterinary regulatory authority for drugs.
 - Support neighbouring countries in collective fight against infectious diseases

Government efforts on AMR

- Government has initiated a series of actions including
 - Setting up a National Surveillance System for AMR
 - Enacted regulations (Schedule-H-1) to regulate sale of antihiotics
 - o Brought out National Guidelines for use of antibiotics.
 - o AMR is now being addressed comprehensively under "One Health Approach".

Challenge

- Coordination among different ministries and between centre and state governments would be a challenge.
- Action plan's success would depend on implementation of national-level programmes to support smallscale animal farms, manage waste from animal farms, animal food processing and pharmaceutical manufacturing sector and health care facilities

7.5. LAW FOR GENERIC MEDICINES

Why in News?

• Recently, the Prime Minister proposed a law for generic medicines that would make it mandatory for the doctors to write the salt names of the medicines on the prescription.

Need

- Various studies by WHO, IMA and various other health agencies have highlighted the high out of pocket health expenditure concentrated in the medicines.
- The reports have also suggested that many households are slipping back into poverty due to this.

Background

• The Medical Council of India's ethics code for doctors made generic prescription mandatory in October 2016, though it was not enforced.

One Health recognizes that the health of humans, animals and ecosystems are interconnected. It involves applying a collaborative, multidisciplinary and cross-sectoral approach to address potential or existing risks that originate at the animal-human-ecosystems interface.

- Health Ministry has proposed changes in the Drugs and Cosmetics Act to ensure the generic names are printed in bigger fonts than the brand names.
- Drug Controller of India has directed states to order the approval of drugs based on generic names only.
- Department of Pharmaceuticals has given in-principle approval for a Uniform code for pharmaceutical marketing practices, which legally binds all stakeholders like doctors, pharmacists etc. to promote generics. Any violations would attract penalty. This has also not been enforced.

Generic Medicines

- It is a low-cost version of a formulation that is equivalent to branded product in quality, dosage, strength, route of administration and efficacy.
- Usually they are allowed to enter the market after the patent protections expire.

Branded Generics

- even after the expiry of patent protection, generic drugs are available under brands and are called Branded generics.
- Since advertisement of prescription medicines is banned in India, companies push their products to doctors, chemists through incentives.

Significance

- Prescribing salt names allows for use of generic medicines over the branded medicines, thus **reducing the expenditure on medicines**.
- It would **prevent the doctor-pharmaceutical company nexus** that creates a conflict of interest in doctor's duty and vested interests. This would thus be a move towards strengthening the medical ethics.

Challenge

- The Indian population has been acclimatized to the brand names of medicines. Suddenly changing to the salt names would cause confusion and apprehension among the population towards the quality of the treatment.
- It might **reduce the entry of big pharmaceutical majors** in the Indian market thus creating a dearth of investment in Indian pharmaceutical market.
- There is still a **shortage of supply of generic medicines** and needs to be addressed first before prescribing the generic medicines. Also the **quality of the generic drugs is not uniform**.
- Health is a state subject and Centre-State coordination would be much needed to counter this problem.

Way forward

- Rules already exist that mandates the doctors to write salt names. But due to low awareness this practice still continues. Therefore government should focus on the better implementation of the existing rules.
- Also, there is a need to bring all the stakeholders like companies, doctors, chemists, distributors and the consumers themselves to improve the efficacy of the implementation of the rules.
- Manufacturers would need to be pursued to drop trade names and to sell medicines by pharmacological names like in USA and Europe.

7.6. MENTAL HEALTH

Why in News?

• A new WHO study has revealed that 4.3% of the global population was living with depression in 2015 showing an 18% rise in the last decade.

Background

- World Health Day 2017 has the theme of "Depression: Let's talk".
- A **study by Lancet**, **has projected** that a \$147-billion investment in scaling up treatment for depression and anxiety could result in improved labour force participation and productivity worth \$399 billion.

Findings of the study

- **Depression is the single largest contributor to global disability** (7.5 per cent of all years lived with disability in 2015).
- It is a major contributor to suicides and the second leading cause of death among 15-29 year olds globally.
- WHO says depression can be long lasting and recurrent with characteristics like sadness, interest loss, feelings of guilt and low self-worth, disturbed sleep or appetite, tiredness and poor concentration.
- **Depression among younger generation is because of** competition in education, career prospects, parental pressures, and interpersonal relationships.

- Common mental disorders are rising, particularly in low-income countries where nearly half of the population affected by depression lives in South East Asia and Western Pacific regions.
- Women are more prone to depression than men. Rate of depression peaks among older adults.
- Depression occurs in children and adolescents below the age of 15 years too.
- Less than half of those affected by depression in the world receive treatments due to the lack of resources and trained healthcare providers apart from prevalent social stigma.
- People are often not correctly diagnosed, and others who do not have the disorder, are often misdiagnosed and prescribed antidepressants.

Steps taken by governments

- Government of India has launched a National Mental Health Policy 2014
 - Universal access to mental healthcare institutions.
 - Strengthen leadership in the mental health care.
 - o Gives out role for central and state governments, local bodies and civil society organizations.
- Government has recently come out with Mental Health care Act 2017 with the aim of avoiding discrimination and improving their autonomy in their decisions.
- Karnataka government has launched a **dedicated helpline called Arogyavani** that acts as a counselling and redressing any type of grievances.

Challenges in India

- Compared to western countries, the number of psychiatrists and the number of dedicated mental health institutions in India is very low.
- With rising urbanization and globalization, there is also a small shift towards a nuclear family. With a smaller family, there is a larger pressure on the children contributing into depression.
- Social stigma because of lower awareness is also a deterrence to help the mentally ill patients.

Way forward

- There is an institutional setup present in the country. But there is a dearth of funds and functionaries of it. Budgetary allocations and private funding to fill this gap need to be done.
- Also the policies **should be target and time specific**. The mental health needs to be tackled on a mission mode.
- Also, social stigma needs to be removed by improving the awareness in the population by:
 - o Changes in the school curriculums and the examination patterns.
 - o Interaction with mental health care patients.
 - o Improving awareness among parents and counseling them too about depression.

7.7. SODHGANGA

Why in News?

 On March 10, 2017, the University Grants Commission mandated that the institutions concerned shall submit an electronic copy of the M.Phil. dissertation /Ph. D. thesis to the Information and library Network (INFLIBNET).

What is Sodhganga?

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- It is a scheme to develop national repository of theses and dissertations of various universities in India.
- It envisions the digital study material for higher education.

Information and library Network (INFLIBNET)

 INFLIBNET Centre is Gandhinagar-based (Gujarat), autonomous Inter-University Centre of the University Grants Commission (UGC) of India.

Some other Digital Platform for Education

SWAYAM

✓ a Web portal where Massive Open Online Courses (MOOCs) will be available on all kinds of subjects.

• E-PATHSHALA

 Provides access to textbooks and other resources developed by the NCERT.

SARANSH

✓ Equip schools and parents to review student's performance in various subjects.

ShaGun

✓ Dedicated web portal, aims to capture and showcase innovations and progress in Elementary Education sector and monitoring of the flagship scheme - Sarva Shiksha Abhiyan (SSA).

www.visionias.in

• INFLIBNET is involved **in modernizing university libraries** in India and connecting them as well as information centres in the country through a nation-wide high speed data network.

7.8. INDIA CHANGES THE DEFINITION OF BLINDNESS

Why in news?

• In April 2017, Union Health Ministry through a notification changed the definition of 'blindness' tuning it with the globally accepted definition of the blindness, as recommended by the World Health Organisation.

More on the news

- Previous definition of Blindness
 - ✓ According to National Programme for Control of Blindness (NPCB) 1976, a person unable to count fingers from a distance of six metres is categorised as blind.
- New Definition of Blindness
 - According to the World Health organisation, a person who is unable to count fingers from a distance of three metres would be considered blind.
- Moreover, the name of the scheme, 'National Programme for Control of Blindness' has been changed to 'The National Programme for Control of Blindness and Visual Impairment.

National Programme for Control of Blindness and Visual Impairment 1976

- Centrally Sponsored scheme with the goal to reduce the prevalence of blindness from 1.4% to 0.3% of total population by 2020.
- It envisions developing and strengthening the programme for "Eye Health" and prevention of visual impairment; through provision of comprehensive eye care services and quality service delivery.
- Strengthening and up-gradation of infrastructure for eye health care.
- To enhance community awareness on eye care and lay stress on preventive measures.

Significance of New Definition

- National Programme for Control of Blindness (NPCB) 1976 definition was based on economic blindness
 meaning the impairment hampering the ability of a person to earn the wages. Whereas, the WHO-definition
 is much broader and is based on social blindness as well, that is the blindness which hampers day-to-day
 interaction of the person.
- This initiative would reduce the counts of blind people from 1.20 crore (as per National Blindness survey 2007 data) to 80 lakh.
- This initiative brings uniformity of blindness criteria also aid the medical researchers to calculate the national burden of blindness in comparison to other countries.
- Changing the criteria is also driven by India's goal to reduce blindness prevalence in the country to 0.3% of the total population by 2020, in line with the WHO's Vision-2020 goal.

7.9. HOUSELESS HOUSEHOLD INCREASED: CENSUS 2011

Who are Houseless Households?

 Census 2011 defines families that do not live in buildings and reside by roadsides, on pavements, in Hume pipes, under flyovers and staircases, on railway platforms, and in the open at or near places of worship.

Issue Involved

- From 2001 to 2011 there was an increase in the **homeless households**, whereas, decrease in **homeless** population.
- Rural homelessness declined by 30% to 8.3 lakh people, while urban homelessness grew by 21% to 9.4 lakh people.
- Majority of the homeless are either migrant workers with no home or nomadic tribes who ply their trade on the streets.

Housing For all by 2022: National Mission for Urban Housing

- Implement by Ministry of Housing & Urban Poverty Alleviation.
- Mission will target SC/ST, women, EWS, for affordable housing
- Slum rehabilitation of Slum Dwellers with public private partnership using land as a resource.
- Promotion of affordable housing for weaker section through credit linked subsidy.
- A Technology Sub-mission to facilitate adoption of modern, innovative and green technologies.
- Promote social and economic equality e.g. preference will be given to differently able and senior citizen.

Existing government actions are punitive rather than rehabilitation e.g. Houseless often seen as beggar and vagrants which is criminalised in many states.

Causes of Increasing Houseless Households in cities

- Rural-Urban disparity in social Assistance programme.
- Shrinking agricultural land in general and income in
- Lack of incentives in other rural occupations e.g. cottage and household industries.
- Lack of Infrastructure in city to deal with migration.
- Rising aspiration to earn an adequate income and later on failure to with growing economic pace of urban life.
- Social and traumatic reason e.g. disaster, family break-up or domestic violence (most victims are women).

Persons in Destitution (Protection, Care and Rehabilitation) Model Bill of 2016

- Ministry of Social Justice and empowerment is the nodal agency for formulation and implementation of bill.
- It defines destitution as a state of poverty or abandonment arising from economic or social deprivation including age and infirmity, disability and sustained homelessness, unemployment
- It aims to provide the whole range of basic service like food, shelter, healthcare and rehabilitative framework for homeless, beggars and destitute people with disabilities.
- It de-criminalises begging (except for repeat offences)

What are Neglected Tropical Diseases (NTD)?

infectious vectors and livestock.

• Diverse group of communicable diseases that prevail

Malaria, TB, HIV, Hepatitis, lymphatic filariasis etc.

Mostly affect populations living in poverty, without

adequate sanitation and in close contact with

in tropical and subtropical conditions. Such as

7.10. NEGLECTED TROPICAL DISEASES

Why in News

In April 2017, WHO released its fourth report on neglected tropical disease and progress made for achieving the roadmap target for 2020.

Highlights of the report

• Essay

- NTDs affect more than 1000 million people in tropical and subtropical countries, costing developing economies billions of dollars every year.
- The greatest burden is on the 1 billion livestock keepers in Africa and Asia who live in close contact with their animals and depend on them for their livelihood and nutrition.
- Providing safe water, sanitation and hygiene (known as WASH) is a key component of the NTD strategy which has proved to be caused for declined hygiene related mortality.

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8. CULTURE

8.1. CHAMPARAN SATYAGRAHA

Why in news?

• The Bihar government will launch year-long celebrations to mark the centenary of Mahatma Gandhi's Champaran satyagraha with a series of events.

Background

- The Champaran Satyagraha of 1917 was Mahatma Gandhi's first Satyagraha in India.
- He was approached by several leaders at the first meeting of the Congress in Lucknow in 1916 with a request to start a movement against the atrocities on farmers in Champaran.
- Gandhiji arrived in Champaran but was later ordered by the District magistrate W B Heycock to leave.
- Gandhi ji refused and persisted. He decided to commit Satyagraha.

Reason for satyagraha

- The peasants of Champaran and other areas of North Bihar were growing the Indigo crop under tinakathia system. Under the system peasants were bound to plant 3 out of 20 parts of his land with indigo.
- Farmers were also oppressed by the khurki system. Under **Khurki system**, the British planters used to pay money to the farmers (Raiyyat) by mortgaging their lands and houses and compelling them to sow indigo.

Centenary year celebrations

- Gandhi Smriti Yatra will be set off from Motihari to mark Gandhi's first visit to Champaran.
- A 'Gandhian circuit' will be developed for tourists visiting the State. Prominent places to be developed include Bhitiharwa Ashram, Brindaba, Shri Rampur, Koeldih, Amolwa, Murli Bharhawa, Sariswa and Hardiya Kothi, which used to be the house of G.P. Edward, a British Indigo planter.
- The **Gandhi Peace Foundation** will be a partner in the yearlong celebrations.

8.2. ROCK ART

Why in news?

• The rock art of central India has been attracting international experts for research and excavations.

What is Rock Art?

- Rock art denotes prehistoric man-made markings on natural stone.
- This type of Stone Age art is traditionally divided into two main categories:
 - Petroglyphs: meaning, rock engravings or carvings; this category also includes works of prehistoric sculpture that are part of the rocks themselves (known as parietal art), such as relief sculpture.
 - Pictographs: meaning, paintings or drawings.
- A third, smaller category of rock art is associated with **Megaliths or Petroforms**, involving the arrangement of stones to create a type of monument.

Rock Art in India

- Of over 150 rock art sites that have been discovered across India, nearly two-thirds are in central India.
- The highest concentration of rock art sites is situated in the Satpura, Vindhya and Kaimur Hills.
- **Bhimbetaka** alone has 750 rock art shelters that were discovered by VS Wakankar, considered the father of Indian rock art.

• One of the most fascinating rock art sites in India in recent times is **Daraki Chattan.** It is a narrow cave in a hill in Mandsaur district, where petroglyph (rock carvings) in the shape of 530 cup-marks or cupicles (circular depressions in the rock-wall) have been found. The experts studying it claim it to be the "oldest rock art in the world", about 2 to 5 lakh years old.

Challenges faced by Rock Art

- lack of state protection
- damage due to vandalism, graffiti and touching by the visitors.
- Bio-degradation of rock sites by microorganisms.
- Lack of funds for preservation
- Absence of state of art technology

8.3. RESTORING THE JEWELS OF DECCAN

Why in news?

The Aga Khan Trust for Culture's ongoing restoration of the Qutb Shahi necropolis in Hyderabad.

Who were the Qutb Shahis?

- Contemporaries of the Mughals, the Qutb Shahi dynasty was founded in 1512 by sultan Quli Qutb-ul-Mulk. Before founding his empire, he served in the Bahmani Sultanate.
- The fifth king, Quli Qutb Shah, established Hyderabad in 1591. He also built the Charminar.
- They ruled till 1686-87, when Aurangzeb conquered Golconda.

About Qutb Shahi necropolis in Hyderabad

- The 106-acre park consists of 75 monuments, including 40 mausoleums, 23 mosques, six baolis (step-wells), a hamam (Persian bath), pavilions and garden structures.
- They have Iranian influences as well as the elements of Vijayanagara architecture.
- The park has already been nominated for UNESCO World Heritage Site status.
- While the Mughals worked mostly with sandstone and marble, it uses granite that was available locally.

8.4. SINDHI LANGUAGE

- National Council for Promotion of Sindhi Language released software tools and eBooks developed by Centre for development of Advanced Computing in order to adapt Sindhi language into digital form.
- The occasion marked the 50th year since Sindhi language was included in the Eighth schedule of Indian Constitution by 21st amendment of Constitution in 1966.
- Such step has been taken for conservation and propagation of Sindhi language both in **Devnagiri** and **Arabic scripts**.

Eighth Schedule of Indian constitution

Aga Khan Trust for Culture (AKTC)

The AKTC is a philanthropic foundationIn 1997, it undertook garden restoration

at Humayun's Tomb in New Delhi.

- It contains the **languages** recognized by the Constitution.
- There is no established criteria for the inclusion of languages.
- Originally it had **14 languages** but at present there are **22**.

National Council for Promotion of Sindhi Language

- It was established in 1994 as an **autonomous Body** under the Department of Higher Education (HRD Ministry) under the **Societies Act of 1860.** It is headquartered in **New Delhi.**
- Its main objective includes:
 - ✓ To promote, develop and propagate Sindhi Language
 - ✓ To advise GoI on issues related to Sindhi language.
 - ✓ To make sure that knowledge of Scientific and Technical Terminological development are available in Sindhi.

8.5. SAHITYA AKADEMI AWARD

- Recently, English translation of writer Perumal Murugan's novel "Mathorubhagan" called "One Part Woman" has won the Sahitya Akademi's award for translation in English by Aniruddhan Vasudevan.
- Also, Rajasthani translation of "Mere Saayian Jio" (Bhai Veer Singh) done by Ravi Purohit called "Jeevo Mahara Sanwara" won the award in same category.

About Sahitya Akademi

It is dedicated to **promotion of literature**. Though set up by the Government of India in **1954**, it functions as an **autonomous organization**.

- Besides the **22 languages** enumerated in **Schedule VIII** of the Constitution, it has recognised **English** and **Rajasthani** as languages in which its programme may be implemented.
- The Akademi has instituted an annual prize for **literary translation** to be given to translations in the **24 languages** recognised by it.

8.6. CHANNAKESHAVA TEMPLE

Why in news?

- The **Channakeshava temple** (aslo known as **Vijayanarayana Temple**) in Belur in Hasan district, **Karnataka** turned 900 this year.
- The temple has been built by King Vishnuvardhana of the Hoysala dynasty between 1106-1117 AD.

About Hoysala Architectural style

- The Hoysala architectural style is considered an intermediate between the Indo-Aryan and Dravidian traditions.
- They were influenced by the western **Chalukyan architecture** and employed their craftsmen as well.
- Some of the **distinctive styles** are:
 - ✓ The temples have a **star shaped base** with the main structure standing on a raised platform.
 - ✓ The **garbha griha** (sanctum sanctorum) houses a centrally placed **murti**(enshrined icon) on a **pitha** (pedestal).
 - ✓ There are **three shrines structured** around a central pillared hall, each with a tower.
 - ✓ Pillars with **horizontal mouldings**, produced by a mechanical process.
 - ✓ There are intricate grille windows, an abundance of sculptural details.
 - ✓ The **sikharas** unlike the northern style (parabolic) are constructed in well-defined horizontal tiers and together with **sanctum sanctorum** they form the vimana of temple.
 - ✓ In temple courtyard (Prakram) several minor shrines and outbuildings often abound.
 - ✓ The temple may be approached via entrances with gigantic **gopurams** (gigantic entrance towers) towering over each doorway.
- The temples are almost entirely covered with intricate sculptural carvings. This was mainly possible, for the temples were constructed out of a very fine grained soft **soap stone** (chloritic schist).
- Other major temples of these styles are: Hoysaleswara temple, Halebid, Karnataka and Kesava temple, Somnathapura, Mysore (Karnataka).

8.7. BORI DIGITISING RARE MANUSCRIPTS

Why in News?

- Bhandarkar Oriental Research Institute (BORI) launching an e-library initiative for preservation of repository of precious manuscripts in Sanksrit and its related languages such as Pali and the Prakrits.
- The initiative comes under National Mission for Manuscript.

What is Manuscript?

- It is the document written by hand or typewritten, before the reproduced in mechanised form.
- It is a primary source of databank of perfect testimony written material of historical significance.

What is National Mission for Manuscript?

 National Mission for Manuscripts (NMM) was established in the year 2003 under the Ministry of Culture.

Channakeshava temple at Belur

- The Mission has designated IGNCA (Indira Gandhi National Canter for Art) as the Nodal Agency for implementing the Mission.
- Its aim is to document, preserve and digitize the vast manuscript wealth of India.
- To enhance the access, improve awareness about cultural inheritance and encourage the use of manuscripts for educational and research purpose.

8.8. PAIKA REBELLION

Why in news?

- Government honored descendants of 16 families associated with Paika rebellion of Odisha in 1817.
- Occasion marks the completion of 200 years since this rebellion took place in April 2nd, 1817.

About Paika Rebellion (Also known as Paika Bidroh)

- Paiks were the traditional **landed militia** of Odisha, used to perform **policing functions**.
- Paiks owned **rent-free land** that had been given to them for their military service to Kingdom of Khurda.
- However problem started when British forcefully usurped their land rendering them landless.
- They were also subjected to repressive **land revenue policies** and humiliation by the British.
- At that critical juncture, **Bakshi Jagabandhu Bidyadhar**, the military chief of the King of Khurda, led army of **Paikas** forcing the **East India Company** forces to retreat.
- Though this rebellion predates the **first war of independence of 1857** but did not get similar recognition.



9. ETHICS

9.1. MEDICAL ETHICS-ATTACKS ON DOCTORS

Why in news?

Recently, various incidents were witnessed involving assault on doctors where five doctors were attacked in Maharashtra. This issue raises several ethical concerns regarding our public healthcare system where blame game is seen. The patients blame doctors and doctors blame the broken health system. This article analyse the issues from both the perspectives

Issues from the point of view of doctors

- Overstretched working hours: Doctors are clocking in even 36 hours of duty at a stretch which makes it difficult for them to deal empathetically with anxious relatives
- Lack of resources in hospitals: the blame of scarce resources are put on doctors which is not their fault.
- Unrealistic expectation: of quick and complete improvement irrespective of illness in the patient.

Issues from the point of view of patients

- Lack of empathy: The doctors need to work on doctor-patient relationships and show empathy while communicating news of death or critical condition of patient.
- **No grievance redressal system**: There should be an established system where patient can register their protest. It will also help in avoiding targets on doctors.
- Lack of services: patients reaching public hospitals are poor and meek and travel a lot to reach hospitals and when they are told medicine or some facilities are not available, they would be agitated.
- **Public perception of doctors:** as life givers has drastically changed with increasing privatization and commercialization.

The attacks on doctors by relatives of patients points towards following ethical issues

- Prestige of doctor: who gets assaulted in front of his patients when he goes back to work
- **Inhumane beating up of doctors**: to the tune that one doctor on referring the patient to another hospital owing to lack of facilities, was so brutally assaulted that he is on the verge of losing his vision
- Negligence on the part of security in hospital administration in public hospitals.
- Poor implementation of laws for doctor's safety: Thus, no deterrent effect on relatives

Way forward

- At the time of treatment, only few relatives may be allowed to accompany the patient but this would need the recruitment of more supporting staff in hospitals as relatives of patients at times help in pushing wheelchair, getting medicines, running around calling the relevant persons etc.
- Security system should be strengthened so that backup personnel can reach hospital on time.
- Establishing a grievance redressal mechanism.
- The system of investigation should be strengthened and cases of assault should be efficiently taken up to penalize the persons at fault.
- A liaison officer may be appointed to maintain healthy relationship of hospital with the patient's relatives.
- Doctor patient ratio needs to be improved as these incidents are more in poor ratio states.

9.2. RESPONSIBILITY OF CELEBRITY ENDORSERS

Why in news?

Advertising Standards Council of India (ASCI) has issued a set of guidelines encouraging celebrities to do due
diligence of the claims made in the ads they endorse.

Background

Celebrity endorsements have been established as a sure shot method to sell the product in recent times.

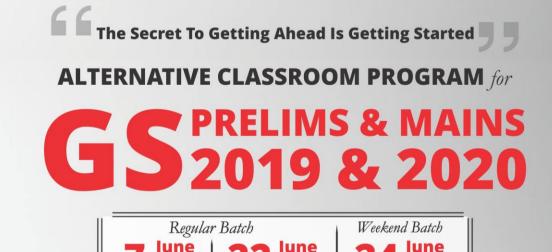
• Celebrities in India enjoy a godly status and people buy products because of the name celebrity endorsing it and not necessarily the product itself.

Ethical Issues/Challenges Involved

- Do celebrities use the products they endorse? If not, then, is it ethical for them to make certain claims on behalf of the brand?
- Is it fair on the producers of a brand that the image of a brand be tarnished solely on the personal controversy of a celebrity who endorses it?
- Is fair that producers play on the consumer's impulsive buying behaviour using celebrities as a pawn to sell unnecessary/harmful products?
- Is it ethical for a celebrity who commands mass popularity to endorse products/services that harm the fabric of the society in general such as gender discrimination?

What needs to be done?

- Celebrities should be held accountable for the products they endorse as proposed in the Consumer Protection Bill, 2015.
- A set of guidelines about the dos and don'ts of advertising must be communicated to the producers in order to protect the consumer from being duped and also to avoid promotion of hurtful and discriminatory notions.
- Advertisements must have warning whenever required whether it related to financial security, health hazard, claims of guaranteed results etc.
- Producers must be held accountable for making false claims.
- Producers should focus on brand building and not on celebrity endorsement in order to sell their product.



 Approach is to build fundamental concepts and analytical ability in students to enable them to answer questions of Preliminary as well as Mains examination

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10. MISCELLANEOUS

10.1. VIP BEACON LIGHTS

Why in news?

• The Government has done away with the beacon lights for VIPs from May 1st 2017.

Background

- The Central Motor Vehicles Rules of 1989 was amended.
- A specific clause in Rule 108 of the 1989 regulations, which empowers the Centre and the States to designate some dignitaries as entitled to red lights on top of their vehicles, is being abolished.
- Effective May 1, only emergency services vehicles such as ambulances, fire engine trucks, and police vehicles will be allowed to use blue lights.
- Red lights will not be permitted on any vehicle.

10.2. BHARAT KE VEER WEB PORTAL

- The portal is an IT based platform, with an objective to enable willing donors to contribute towards the family of a martyred soldier.
- The site "Bharat ke Veer" will be available on web portal as well as mobile application.
- To ensure maximum coverage, a cap of 15 lakh rupees is kept for each family.
- "Bharat Ke Veer" corpus would be managed by a committee of eminent persons and Government officials.
- The website is technically supported by National Informatics Centre (NIC) and funded by State Bank of India.

10.3. ASSAM GOVT PROPOSES TWO-CHILD NORM

Why in news?

Assam government has proposed a strict two-child norm in the draft population policy to tackle the population explosion faced by the state.

Need for this policy

Assam is facing a dangerous population explosion. Early marriage in the communities living in the tea gardens and tribal areas is one reason apart from illegal migration.

National Population Policy, 2000

- It allows the citizens to make voluntary and informed choice.
- It recognizes that high Infant Mortality Rate is a major reason behind increase in population.
- It also focuses on free primary education for all, institutional deliveries, and control of communicable diseases

About the policy

- People having more than two children will not be eligible for any government jobs, employment generation schemes like giving tractors, offering homes and others government benefits.
- All elections such as panchayats, municipal bodies and autonomous councils held under the state election commission will also have this norm for candidates.
- The policy also aims to give free education to all girls up to university level.
- Those with child marriage also will be ineligible for government job.

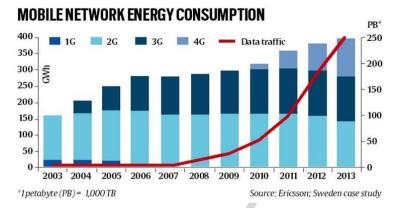
10.4. TELECOMS RESPOND TO TRAI'S CONSULTATION PAPER

Why in News?

 TRAI had floated a consultation paper on reducing carbon footprints (Approach Towards Sustainable Telecommunications), seeking industry feedback on ways to reduce carbon footprint in telecom networks (eg. using renewable energy options).

Background

- The massive rollout of 3G and 4G services have increased the power requirements considerably, and it only expected to go up as data transfer would consume more energy.
- Currently, 60 per cent of the energy requirements of the telecom sector is provided by diesel power causing huge carbon emissions.
- This is because of an uncertain grid power system and limited availability of power.



Issues raised by telecom operators

- Operational challenges for deployment of renewable energy technology: Some of such constraints include high costs in deploying infrastructure which uses renewable energy, roof top towers, sensitive areas issues, nonstandard towers such as poles, etc. and other operational issues.
- The **erratic and inadequate electricity supply** and lack of availability of grid electricity especially in rural areas are the main reasons behind their dependence on diesel power.
- As per the **licence conditions**, a telecom operator needs to maintain a network availability higher than 99.5 per cent. To ensure this benchmark, there is a need of availability of 24×7 power supply at all areas of operations; however, the same is not available. This further compels them to use diesel power.
- Some of the stakeholders also suggested to Trai that the emissions from diesel in telecom sector needed to be viewed in proportion to the data traffic on the networks of these operators, and not subscribers, or sites.
- On the electricity generated by a RET project, which is funded or maintained by a telecom service provider, also being used for community, some of the larger telecom players ruled out the option suggesting that telcos were not in the business of electricity generation, and they shouldn't be involved with it.

10.5. STAMPS FOR INTERNATIONAL YOGA DAY

Why in news?

• The UN postal agency, UN Postal Administration (UNPA) will issue special stamps commemorating the International Yoga Day on June 21 this year.

About the stamp

- The special sheet consists of stamps with images of the sacred Indian sound "Om" and various yogic asanas.
- United Nations stamps are issued simultaneously at UN offices in New York, Geneva and Vienna.

About International Yoga Day

• In December 2014, the UN General Assembly had adopted a resolution with a record number of 177 cosponsoring member states to commemorate the International Day of Yoga every year on June 21.

10.6. NATIONAL ORAL HEALTH PROGRAMME

Why in News?

 Ministry of Health and Family Welfare celebrated World Oral Health Day on 20th March 2017.

National Oral Health Programme

- It is a comprehensive oral health programme which comes under National Health Mission.
- It envisages an affordable, accessible and equitable oral health care delivery by 2020.

What is Oral Health?

- World Health Assembly in 2005 included Oral Health with other non-communicable diseases (NCDs).
- It is a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects such as cleft lip and palate, periodontal (gum) disease, tooth decay etc.

10.7. RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN (RUSA)

Why in News?

Minister of Human Resource Development launched the unique portal and mobile app of Rashtriya Uchchatar Shiksha Abhiyan (RUSA), in April 2017.

RUSA Digital Platform

- Digital launch consists of:
 - ✓ Web Portal with all details of resources facilitated under the scheme for various states universities.
 - ✓ Mobile app for Fund and Reform Tracker will ensure that all projects under RUSA are tracked 24x7.
- Digital Language Laboratory has been set up in the Jharkhand University for access to various publications.
- Digital platform would provide a report card of states with details of their higher education policies, plans and best practices of research and academics.

10.8. IITS TO ADD 20% SEATS TO GET IN MORE WOMEN

- The Indian Institutes of Technology (IITs) have decided to introduce a supernumerary quota for women from 2018 to improve the gender composition of their classrooms.
- The decision has been taken to introduce 20 per cent additional seats, exclusively for women.
- It is a condition-based quota, eg. if there are 100 seats and only 10 have been taken by women, then the institute will add 20 per cent seats over and above the actual strength, but only for women.

What is Supernumerary quota?

- Supernumerary quota is introduced by AICTE to allow students from the economically weaker sections to gain admission in engineering colleges for reduced tuition fees.
- This quota is over and above the seat matrix issued by the Government.
- The move is aimed at improving the poor enrolment of women in the IITs. For instance in 2014, only 8.8 per cent women students whereas the figure went up to 9 per cent in 2015, and dropped to 8 per cent in 2016.

10.9. ADVANCED FARMING-ENRICHED FARMERS SCHEME

Why in news?

- The state government of Maharashtra has announced the Advanced Farming Enriched Farmers Scheme to increase the farmer's income by cutting production cost and increase in output.
- The scheme saw mention in the State financial budget 2017-18.

Key features of the Scheme

- Under each such unit, an area wise planning shall be done for the crop development. The following tasks will be performed under the scheme.
 - ✓ Increasing the production of major crops in the state This means the crops that give you maximum value will be targeted
 - ✓ Diversification of the crops
 - ✓ Making farmer's aware of the marketing techniques
 - ✓ Generating a unit among farmers through farm producer companies This will help the farmers get the right prices for their produce.

Making farmer's financial stable - Each tehsil will be given a production target. The target would be planned in such a way that when the farmers sell their produce, they can easily repay their loans.

What is Rashtriya Uchchatar Shiksha Abhiyan (RUSA)?

It is a Centrally Sponsored Scheme (CSS), launched in 2013 which aims at providing strategic funding to eligible state higher educational institutions.

Objectives of RUSA

- Ensure access, equity and excellence in higher education.
- Improve the overall quality of state institutions on par of standardisation institution.
- Promoting autonomy in State Universities and improving governance in institutions.
- Ensure reforms in the affiliation, academic and examination systems.
- Correct regional imbalances in access to higher education by setting up institutions in unserved & underserved areas.

10.10. COMMITTEE FOR VIRTUAL CURRENCY REGULATION

Why in news?

 The Centre has setup an inter-disciplinary committee to recommend an action plan for dealing with virtual currencies like bitcoins. The committee will be Chaired by Dinesh Sharma, Special Secretary, Department of Economic Affairs

About the Committee

• The committee will take stock of the present status of virtual currencies, both in India as well as abroad It will also examine **the existing global regulatory and legal structures governing virtual currencies** and suggest measures for dealing with issues like consumer protection and money laundering.

10.11. TRANSITION TO INDAS

Why in news?

The first full fiscal year of reporting under Indian Accounting Standards (IndAS) has been completed.

What is Ind AS?

- Ind AS or Indian Accounting Standards govern the accounting and recording of financial transactions as well as the presentation of statements such as profit and loss account and balance sheet of a company.
- For long, there has been a heated debate about Indian companies moving to the globally accepted International Financial Reporting Standards (IFRS) for their accounts.
- Ind AS has been evolved as a compromise formula that tries to harmonise Indian accounting rules with the IFRS.

Financial year	Mandatorily applicable to
2016-17	Companies (listed and unlisted) whose net worth is equal to or greater than 500 crore INR
2017-18	Unlisted companies whose net worth is equal to or greater than 250 crore INR and all listed companies
2018-19 onwards	When a company's net worth becomes greater than 250 crore INR
2015-16 or later	Entities, not under the mandatory road- map, may later voluntarily adopt Ind AS

10.12. SAGARMATHA FRIENDSHIP-2017

Why in news?

• The China-Nepal exercise, "Sagarmatha Friendship – 2017" began in Nepal Army's paratraining school in Maharajganj.

About Sagarmatha

- It is the **first military exercise** between Nepal and China.
- The military exercise will focus on counter terrorism and disaster response.
- It marks the Nepali Army's extension of military diplomacy with china.

10.13. THE MASSIVE ORDNANCE AIR BLAST BOMB (MOAB)

- A GBU-43/B Massive Ordnance Air Blast (MOAB) bomb, nicknamed "mother of all bombs," was dropped on a tunnel complex of ISIS-Khorasan, a regional affiliate of the terror group, in Achin district of Afghanistan's Nangarhar province.
- The Massive Ordnance Air Blast bomb (MOAB) also known as the 'mother of all bombs' is the largest non-nuclear bomb ever deployed in combat by the United States. The GBU-43 is a 21,600 pound (9,797 kg) GPS-guided munition.
- It is a thermobaric weapon, which uses oxygen from the surrounding air to generate an intense, high-temperature blast wave that packs an incredible amount of energy into a small, localised area. In comparison, most conventional bombs consist of a mix of fuel and oxygen-generating substances. Thermobaric weapons consist of almost entirely 100% fuel, and rely on atmospheric oxygen.

10.14. DRAFT FIRE SAFETY BILL

Why in news?

• Union Home Ministry has come up with a draft Bill on fire safety titled as 'Maintenance of a fire and emergency services for the state'. It has been sent to state governments for comments and feedback.

Key features of bill

- Uniform service: a "ONE Fire and Emergency Service" for each state.
- A **fund** for fire prevention and life safety for meeting any extraordinary expenditure.
- "Fire tax" on land and buildings and fee for deployment of the fire service beyond a state's limits.
- The state government may declare fire and emergency service to be an essential service.
- Accountability: property owner is liable to pay compensation on account of negligence leading to damage of
 other person's property. However, the occupiers of buildings will be liable for prosecution if they don't
 maintain fire safety systems.

10.15. TEST AND TREAT POLICY FOR HIV

Why in News?

 On April 28 2017, Ministry of health and Family welfare had launched a test and treat policy of HIV/AIDS patents.

Features

 As soon as a person is tested and found to be positive, he/she will be provided with free treatment of ART (antiretroviral therapy) irrespective of his CD4 T count or clinical stage.

What are CD4 T cells?

White Bloods Cells in the body that strengthen immunity.

HIV tests

- ELISA test
 - ✓ An enzyme-linked test that detects and measures antibodies in your blood.
- Viral load test
 - ✓ Measure the amount of HIV in blood number of copies of HIV RNA in a millilitre of blood.
- Its aims to cut HIV transmission by suppressing the virus in those carrying it, which decreases their likelihood of passing it on to others.

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