

# IAS PARLIAMENT

*A Shankar IAS Academy Initiative*

## CURRENT AFFAIRS

MAY - 2017

CONSOLIDATED (PART I & II)



**SHANKAR IAS ACADEMY**<sup>TM</sup>

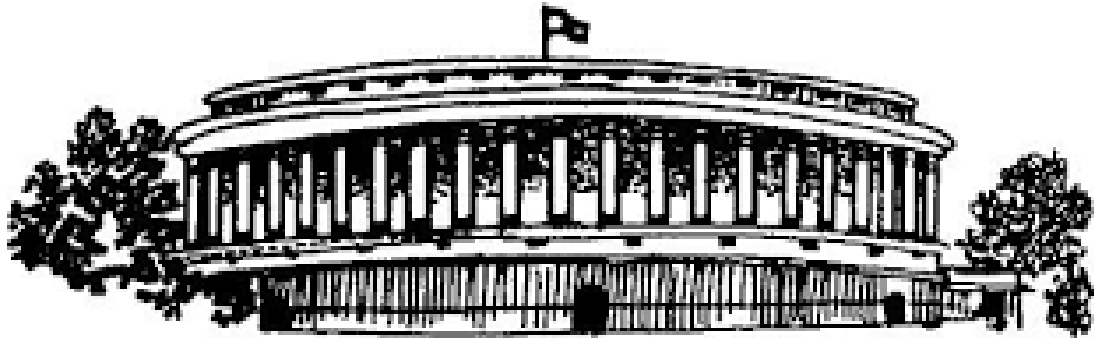
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## GS PAPER II

### 1. POLITY

#### 1.1 LEADER OF OPPOSITION

##### *What is the issue?*

- The Supreme Court has asked the Union government to appoint the Lokpal without the Leader of Opposition being a part of the selection panel.
- It is surprising that the SC did not ask the government why the position is vacant in the first place.

##### *What are the misconceptions?*

- **Leader of Opposition is a statutory office** provided for in the Salary and Allowances of Leaders of Opposition in the Parliament Act, 1977.
- The leader of the party in opposition to the government which has the greatest number becomes the Leader of Opposition.
- The **Speaker needs to recognise him/her** as the Leader of Opposition.
- The law is clear that the Speaker is required to recognise the leader of the numerically largest party in opposition as the leader of opposition.
- **The option of not recognising him/her is just not available.**
- The rule that a party should have at least 10% of the members of the House for the Speaker to recognise someone as the Leader of Opposition is not part of this act.
- G V Mavalankar, the first Lok Sabha Speaker, said the main opposition party's strength must equal the quorum i.e. 10% of the total strength.
- This point was later incorporated in Direction 121 (1) of the Directions by the Speaker, Lok Sabha, and The Leaders and Chief Whips of Recognised Parties and Groups in Parliament (facilities) Act of 1998.
- This has become redundant after the enactment of the Tenth Schedule of the Constitution under which even a one-member party is recognised as a legislature party. So sticking to it would be meaningless.

##### *Did the Judiciary overstep by this order?*

- **Article 122 of the Constitution mandates the courts not to inquire into proceedings of Parliament.**
- But recognising the Leader of Opposition is not a proceeding of the House within the meaning of Article 122.
- It is a statutory duty of the Speaker and the court can thus ask why action hasn't been taken, resulting in the delay in appointing a Lokpal.
- When the SC asked the government to select the Lokpal, even in the absence of the Leader of Opposition, it should also have asked why the statutory provision was ignored.

#### 1.2 LAW COMMISSION REPORT

##### *Why in news?*

Recently Law Commission released its report on bail law reform which deserves urgent attention.

### **What does the report say?**

- The Law Commission, in its **268th Report**, highlights the problem where it has become the norm for the **rich and powerful to get bail with ease**, while others languish in prison.
- The commission, headed by former Supreme Court judge B.S. Chauhan recommended to make it easier for all those awaiting trial to obtain bail.
- It said that one of the first duties of those administering criminal justice must be that bail practices are “fair and evidence-based”.
- Decisions about custody or release should not be influenced by factors such as gender, race, ethnicity, financial conditions or social status.
- The main reason that 67% of the current prison population is made up of under-trials is the great inconsistency in the grant of bail.
- Even when bail is given, most are unable to avail it due to their poor financial conditions.
- The Supreme Court also observed that poverty is the main reason for the incarceration of many prisoners, as they are unable to afford bail bonds.

### **What does the commission propose?**

- The Commission seeks to improve on a provision introduced in 2005 to grant relief to thousands of prisoners languishing without trial and to decongest India’s overcrowded prisons.
- **Section 436A of the Code of Criminal Procedure** stipulates that a prisoner shall be released on bail on personal bond if he or she has undergone detention of half the maximum period of imprisonment specified for that offence.
- It recommends that those detained for an offence that would attract up to seven years’ imprisonment be released on completing one-third of that period.
- For those who had spent the whole period as undertrials, the period undergone may be considered for remission.
- It gives an illustrative list of conditions that could be imposed in place of sureties or financial bonds.
- It advocates the need to impose the “least restrictive conditions”.
- The report states that the overcrowded prisons or unjust incarceration of the poor, can be reduced by expediting the trial process.

## **1.3 NATIONAL COMMISSION FOR MINORITIES**

### **Why in news?**

Delhi High Court last week sought the Centre’s response on a plea against government “inaction” on making appointments to the National Commission for Minorities (NCM).

### **What does the commission deals with?**

- The communities listed as minorities under the National Commission for Minorities Act, 1992, are Muslims, Christians, Sikhs, Parsis and Buddhists.
- Jains were included in the list in 2014.
- The commission is a forum for appeal, set up to safeguard the rights and interests of India’s minority communities.



- Unlike the National Commission for SCs and for STs, National Commission for Minorities is a statutory body.
- The NCM Act lists 9 functions of the Commission:
  - to evaluate the progress of the development of minorities under the Union and states;
  - to monitor the working of safeguards provided in the Constitution and in union and state laws;
  - to make recommendations for effective implementation of safeguards for the protection of minority interests;
  - to look into, and take up, specific complaints regarding deprivation of rights and safeguards of minorities;
  - to get problems of discrimination against minorities studied, and recommend ways to remove them;
  - to conduct studies, research, analysis on socioeconomic and educational development of minorities;
  - to suggest appropriate measures in respect of any minority to be undertaken by central or state governments;
  - to make periodic or special reports to the Centre on any matter concerning minorities; especially their difficulties;
  - To take up any other matter that may be referred to it by the central government.
- The NCM is supposed to have a Chairperson, a Vice-Chairperson, and 7 members, at least 5 of whom should be from minority communities.

***What is the difference between a constitutional and statutory body?***

- Constitutional bodies have greater autonomy.
- They can take up and inquire into many matters suo motu, and have powers of a civil court.
- But that does not mean that all statutory bodies are the same. E.g The National Human Rights Commission (NHRC) has more powers than the NCM.

***Why is there a need for such commission?***

- The Constitution is unambiguous about the rights of individuals, and of certain groups and minorities.
- The success of a pluralistic democracy lies in these rational and robust institutions which protect those rights, or give those abstract ideas shape on the ground.
- The degree of autonomy with which organisations like the NCM, NCSC, NCST or NCBC are able to function eventually decides how healthy a democracy is.
- These are systems that allow for a healthy evaluation of the state of the nation, a forum for airing of discontent, which ultimately strengthens the system, apart from allowing individuals to fully exercise their rights.

***What happened to the move to give the NCM constitutional status?***

- The Constitution (One Hundred and Third Amendment) Bill, 2004, proposed to establish a new Commission, with constitutional status.
- But it got trapped in the commotion of defining who is a ‘minority’, and later the bill lapsed.
- The founding fathers of the Constitution, as well as the framers of the 1992 Act seemed to have a clear idea of who ‘minorities’ were.



- But the Supreme Court, in a matter concerning minority educational institutions, ruled in October 2002 that a state may be considered as the basic unit for the protection of the right of minorities to set up minority educational institutions.
- Subsequently, a May 2007 cabinet proposal defined minorities along these lines — so Hindus were a minority in states such as Jammu & Kashmir, Punjab, Arunachal Pradesh, Nagaland, Meghalaya and Mizoram.
- This presented complications, as religious and linguistic minorities had been historically defined in terms of their overall numbers in the country.
- While the NCM's recommendations are often ignored, the Centre is required to present its reports, along with an action taken report, to Parliament.

## 1.4 ASSAM'S MIGRANT ISSUE

### *What is the issue?*

- The cut-off date for granting citizenship to Bangladeshi migrants in Assam, defined in Section 6A of the **Citizenship Act** was March 25, 1971.
- This has become the subject of a fresh debate more than 3 decades after the section was introduced following the Assam Accord of 1985.

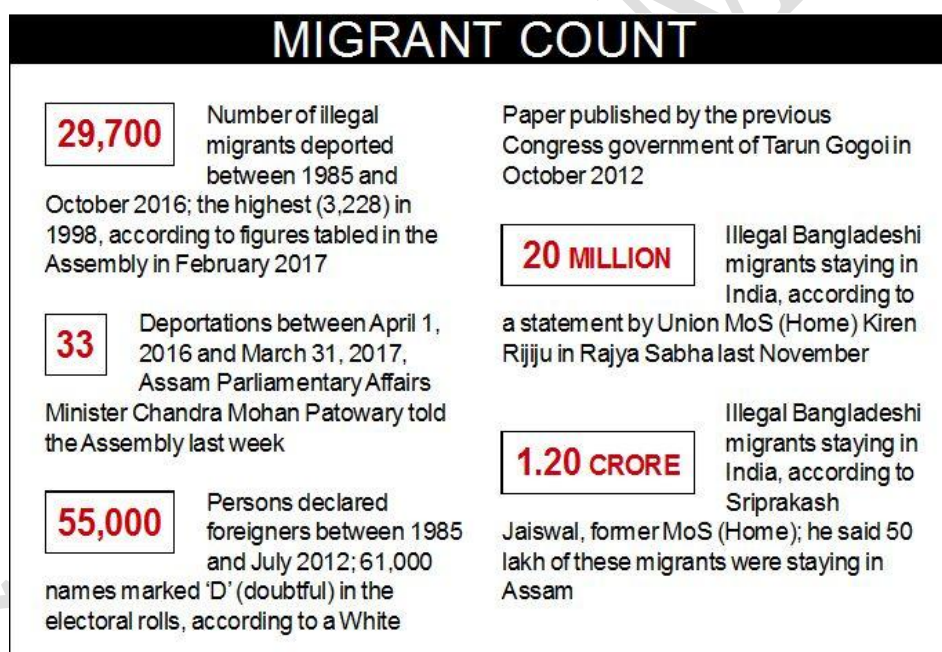
### *What is the background of the issue?*

- Five years ago, organisation called Assam SanmilitaMahasangha filed a writ petition challenging of Section 6A.
- The Assam Accord was already 27 years old then, and several lakh migrants who came from erstwhile East Pakistan before March 25, 1971, had been accepted as citizens.
- On December 17, 2014, a two-judge Bench of SC suggested that the matter be put before a five-judge Constitution Bench, and listed 13 questions for it.
- Most of the questions pertained to whether Section 6A **violated the Constitution, and contradicted other provisions** of the Citizenship Act itself.
- The two-judge Bench said that the Assam Accord had made a “huge number of illegal migrants” deemed citizens of India.
- Section 6A did not merely rest content with granting refugee status to those who were illegal migrants from East Pakistan but went on to grant them the benefit of citizenship of India.

### *What will be the possible outcome of amending it?*

- It is argued that there is no rational basis for having separate cut off dates for regularising illegal migrants who enter Assam as opposed to the rest of the country.
- According to article 6 of the constitution, the cut off date for determining citizenship in India is July 19, 1948.
- The All Assam Students' Union (AASU), whose then leaders had signed the Assam accord, considers it “all-inclusive”, as it has provisions for detection and deportation of foreigners, apart from providing constitutional safeguards to the indigenous people.
- **If the base year is moved back to 1951, Assam will be pushed into fresh turmoil.**
- Thousands of people who came before 1971 and were granted citizenship by the Assam Accord will be rendered stateless.

- Groups that are challenging the validity of the Accord also want 1951 to be the base year for updating the NRC (National Register of Citizens).
- The process of updating the NRC has already given an indication as to how many people will find it difficult to prove their Indian citizenship.
- Last February, Gauhati High Court had declared as unacceptable residence certificates issued by panchayat secretaries in rural areas and circle officers in urban areas as proof of citizenship for inclusion in the NRC.
- Some 48 lakh persons who had submitted such certificates now face the prospect of being left out.
- The High Court stated that “Issuance of such certificates is contrary to the mandate of the Citizenship (Registration of Citizens and Issue of National Identity Cards) Rules, 2003, besides not being in the national interest”.
- While the Centre and the Assam government have decided not to contest the court order, the Centre told the Supreme Court in April that it was considering the reliability of the ration card as a supporting document for updating the NRC.
- If the court declares ration cards as unacceptable, then another 20 lakh people stand to be left out, rising to 68 lakh the number of those unable to prove their citizenship.



## 1.5 CITIZENSHIP TO CHAKMAS AND HAJONGS

### What is the issue?

A long-standing demand of the Chakma and Hajong refugee community for Indian citizenship may be met soon.

### Who are these people?

- Chakmas and Hajongs were originally residents of the Chittagong Hill Tracts of erstwhile East Pakistan, who had to flee when their land was submerged by the Kaptai dam project in the 1960s.
- The Chakmas, who are Buddhist, and Hajongs, who are Hindus, also faced religious persecution in East Pakistan (now Bangladesh).

- Chakmas and Hajongs entered India through the then Lushai Hills district of Assam (now Mizoram).
- Within the Chittagong Hill Tracts, the Chakmas are the largest ethnic group and make up half of the region's population.
- The Chakma possess strong genetic affinities to Tibeto-Burman groups in Northeast India and to East Asian populations.
- In Assam Chakma people have scheduled tribe status.
- They also have high frequencies of mainland Indian genetic ancestry.
- Hajong are the fourth largest ethnicity in Meghalaya.
- Hajongs are predominantly rice farmers and have the status of a Scheduled Tribe in India(Assam and Meghalaya)
- According to officials, the number of these refugees has increased from about 5,000 in 1964-69 to 1,00,000.
- While some stayed back with the Chakmas already in the district, the Indian government moved a majority of Chakmas and Hajong to the North East Frontier Agency (NEFA), which is now Arunachal Pradesh.
- At present, they do not possess citizenship and land rights, but are provided basic amenities by the state government.

### ***What is the problem?***

- The Centre and the Arunachal Pradesh government are in talks to accord citizenship to them, though without extending the rights available to Scheduled Tribes in the state.
- This is the third generation of the refugees who first settled in the region in the early 1960s.
- The Supreme Court had given a three-month deadline in 2015 to the Centre to process the demand.
- Only about 5,000 persons of the original 14,888 persons of 2,748 refugee families settled in Arunachal between 1964 to '69 are reportedly alive, which means most persons in the two communities were born in India and hence, qualify for Indian citizenship by birth.
- Stiff opposition from the state government had stalled implementation of the SC directive.
- But the move has political implications for Arunachal Pradesh.
- Since the 1980s, the All Arunachal Pradesh Students' Union (AAPSU) has spearheaded a mass movement against granting citizenship to Chakmas and Hajongs.
- The AAPSU fears that the refugees could soon outnumber the indigenous population and influence electoral outcomes.

## 1.6 TELANGANA'S MUSLIM RESERVATION BILL

### *Why in news?*

The recent bill passed by the TRS government in Telangana that increased the quota for OBC (Pasmanda) Muslims and STs needs critical evaluation.

### *What is the background of the issue?*

- Indian Muslims are differentiated into various caste groups.
- Historically, **the high caste Ashrafs**, once the ruling class, conceived Muslims as a “nation” and mobilised for self-determination through the Muslim League.
- The 1946 elections, dubbed as the consensus on Pakistan, in which the Muslim League won handsomely, was marked by a restricted electorate and nearly 85% of the population was excluded.
- Mostly, propertied and educated Muslims, the high caste ashraf, voted for Pakistan, the vote of subordinated Muslim caste groups wasn't even put to test.
- In fact, lower caste Muslim organisations like the **Momin Conference** were actively contesting the two-nation theory.
- It is due to the tragedy of the Partition that Muslims lost reservations in independent India that they enjoyed pre-1947.
- Experience of being a ruling class and the fact of being higher caste and adequate representation in public employment made ashrafs not to qualify as a socially backward class entitled to reservations under **articles 16 (4) and 15 (4) of the Constitution**.
- This position is affirmed by the Mandal (IndraSawney) judgment (1992) and also by various government reports including the Sachar Committee Report (2006).
- But ideologues of the **Pasmanda movement** – a social movement of backward, Dalit and Adivasi Muslims consistently challenged reservations for Muslims and preferred that similarly placed lower caste groups across religious communities be clubbed together.
- For instance, in Bihar, the OBC list is subdivided into Annexure I (Most Backward Classes) and Annexure II (Backward Classes) with most subordinated caste Muslims recognised in the MBC category with other Hindu castes.
- The Bihar formula works well, without triggering communal polarisation.

### *Why Telangana bill is a cause for concern?*

- In Telangana, while OBC-A and OBC-B included Muslim scavengers (mehtars) and cotton carders (dudekula) with other Hindu backward castes, **the OBC-E exclusively recognised 14 Muslim caste groups**.
- What the recent bill has done is to increase the OBC-E quota from 4% to 12% and the ST quota from 6% to 10%, thereby taking **the quantum of reservations in the state to 62%**.
- The revised quota will be struck down since it exceeds the Supreme Court ceiling of 50% for reservations.
- **The bill can also not be placed within the Ninth Schedule** of the Constitution due to an unfavourable government at the Centre.

- Also, the OBC-E group includes around a 6% Muslim population segment.
- In that case the existing 4% quota for OBC-E was reasonable.
- Many experts fear that the bill will again feed into the hegemonic secular-communal or majority-minority duopolies.
- This situation could have been avoided had the Andhra Pradesh government followed the Bihar formula in 2004, when it first introduced the OBC-E category exclusively for Muslim caste groups.

## 2. GOVERNMENT POLICIES, BILLS AND INTERVENTIONS

### 2.1 DRAFT LABOUR CODE

#### *Why in news?*

The Draft Labour Code on Social Security and Welfare was published for public comments.

#### *What is the existing problem?*

- India's Constitution and some of the ILO Conventions on social security provide a framework for **development of a social security system**.
- The central labour laws provide for social security such as maternity benefit, accident and disablement compensation, provident fund and gratuity.
- But they cover at best around 8% of the workforce in India.
- **Unorganised workers**, though huge in number, **have been ignored for long**.

#### *What are the positives of the bill?*

- It **covers employees and non-employees** including domestic workers, farm workers, self-employed of all types, and so on.
- It seeks to address these grave shortcomings and attempts to conceive of a universal social security cover in a 'Single Code' by merging all existing schemes and laws.
- It reduces the payroll tax to 17.5% and subsidises the gratuity cost to 2% of total salary cost.

#### *What are the shortcomings?*

- It defines "woman" as an "employee who is a woman in the context of maternity benefit under this code"; "monthly income" has not been defined.
- It inadvertently legalises "oral contract" by defining it as an attribute of informal worker.
- The canvas of coverage is vast and this gives rise to an **apprehension over the capacity of the State to enforce this Code**.
- The Code **does not define "social security"** nor provide the components of social security and the percentage benefits under each component.
- There are huge **concerns about the funds** for delivering varieties of benefits in the Code.
- The **coverage is huge** and the contributions apart from organised sector employers and employees are difficult to realise.

- The Code also envisages a huge administrative architecture, namely, the National Council, the Central Board, the State Board, an Executive Committee, a Standing Committee, and Central and State Advisory Committees.
- The Code lists numerous functions for each body (some over-lapping) and bureaucratisation will be its greatest hazard.
- It omits employers or does not give adequate representation to unions.
- The top-down approach of this Code is a serious limitation.

## 2.2 NATIONAL HEALTHCARE POLICY 2017

### Why in news?

The Union cabinet recently approved the National Health Policy, 2017.

### What are the features?

- The policy includes progressive steps towards universal and affordable access to healthcare services for the underprivileged.
- It does this by making provisions for comprehensive primary care via the conversion of 150,000 sub in Indian villages to “**Health and Wellness Centres**”.
- Every family is to be provided with a health card that will link it to the primary care facility and make it eligible to receive a defined package of services anywhere in the country.
- To increase “accountability and governance”, the government will aim at increasing both horizontal and vertical accountability by providing a greater role for local body participation and encouraging community monitoring.

### What are the problems?

- **Absenteeism** -In a study conducted by the World Bank and Harvard University in 2003, it was found that in 1,500 primary healthcare centres across India, 40% of healthcare workers in government health clinics were absent from work.
- In another study conducted in the sub-centres of 135 villages of Udaipur from 2005-07, suggested that monitoring, coupled with punitive pay incentive, reduced the absence of nurses from 60% to 30% in healthcare centres.
- This proves that healthcare workers are responsive to properly administered incentives, and that comprehensive monitoring does make a difference.
- **Distrust** -For the underprivileged, a visit to a primary healthcare centre may mean the loss of a day's wage, especially given a bad service delivery system.
- A lack of understanding of the benefits of vaccination, and, to some extent, distrust in government healthcare services, exacerbate the problem.
- A research study helped provide immunization services through mobile camps on fixed days in one intervention. In the other intervention, it incentivized parents with a gift of 1kg of lentils on immunization days and a *thali* on the completion of the whole schedule.
- It showed that providing poor families with non-financial incentives in addition to reliable services and education about immunization was more effective.
- **Lack of evidence** -While the healthcare policy relies heavily on technical research in pharmaceuticals and equipment, when it comes to service delivery, evidence-based policy has been absent in India.



- Policymakers need to know what works and what doesn't. There is evidence to show that projects fail largely as they are not evidence-based.
- The government will also require a robust mechanism to implement and monitor the mammoth mission.

### 2.3 ASSISTANCE TO FISHERMEN

#### *What is the issue?*

The Centre plans to provide the fishermen community, mainly small-scale and artisanal fishers, and financial assistance and introduce norms to improve labour conditions in the sector.

#### *Why the centre announces such a measure?*

- Fisheries sector contributed Rs.96,824crore to the GDP (at current prices) during 2013-14, which is 0.92% of the total GDP and 5.15% of GDP from agriculture, forestry and fishing at current prices.
- It noted that fishermen are having difficulties in availing institutional credit to buy fishing implements and crafts
- The risky nature of returns has led to many fishermen falling into the debt trap of private financiers and middlemen.
- Therefore, the Centre, with the help of NABARD, will provide financial assistance to fishermen with liberal terms and conditions.
- In addition, the Government will introduce new schemes to skill traditional fishermen.
- However, the government will ensure that the Indian fishing fleet does not engage in **'Illegal, Unreported and Unregulated' (IUU) fishing**, according to the National Policy on Marine Fisheries, 2017.

#### **National Policy on Marine Fisheries**

- The draft on the National Policy on Marine Fisheries **lays emphasis on bringing in Blue Revolution** by sustainable utilisation of the fisheries wealth from the marine and other aquatic resources.
- The Blue Revolution reinforces the **Blue Growth Initiative (BGI)** as amplified at the Rio+20 Conclave held at Rio de Janeiro in 2012.
- The government's focus is on maximising fleet-size, mainstreaming biodiversity conservation in production processes, species-specific and area-specific management plans and spatial and temporal conservation measures.
- The policy is aimed at improving the livelihood of fishers by encouraging integrated approach on fisheries management, blending of traditional knowledge and science with business principles.

### 2.4 RASHTRIASWASTHYABIMAYOJANA

#### *What is the issue?*

2017-18 budget allocation has marginally increased the funding pattern for RSBY compared to last year's revised estimates, despite its lacklustre performance.

#### *Why RSBY is flawed?*

- RSBY is one of the world's largest publicly-funded health insurance (PFHI) scheme.
- Under the scheme, a Below Poverty Line (BPL) family of five is entitled to more than 700 treatments and procedures at government-set prices, for an annual enrolment fee of Rs. 30.



- However, even nine years after its implementation, it has failed to cover a large number of targeted families, almost three-fifths of them.
- Their exclusion has been mainly due to the **prevalent discrimination against disadvantaged groups**.
- Lack of mandate on insurance companies to achieve higher enrolment rates.
- And an **absence of oversight** by government agencies.
- There has been a substantial increase in hospitalisation rates, but it is unclear if it has enabled people to access the genuinely needed, and hitherto unaffordable, inpatient care.
- Often, doctors and hospitals have performed unnecessary surgical procedures on patients to claim insurance money.
- Indeed, in the absence of regulations and standards, perverse incentives are created for empanelled hospitals to conduct surgeries.
- There is near-consensus that the RSBY has resulted in higher out-of-pocket expenditures.
- Though it is a cashless scheme, many users are exploited by unscrupulous hospital staff.
- Even the card given specifically for the scheme is not accepted by many hospitals.
- People availing the scheme was deeply affected by the attitude of the actors involved like doctors, local officials, neighbours and even relatives.
- This caused the failure of the scheme despite its holistic health care coverage.

### ***What is the way forward?***

- RSBY must move beyond the top down approach specifying budget allocation and administrative and technical efficiency.
- It needs to listen to the people to formulate the best insurance policy.
- There is a need to bring the 'public' back into the discourse on public health.

## **2.5 ISBN AND HRD**

### ***Why in news?***

ISBN International Agency has threatened the HRD ministry to revoke the ministry's appointment as the agency for issuing ISBNs in India.

### ***What is ISBN?***

- International Standard Book Number (ISBNs) is a unique 13-digit code, usually found on the back cover of a book above the barcode.
- It is used by buyers to identify books.
- ISBN is not mandatory to publish a book.
- But it has become an indispensable sales tool as bookstores.
- e.g Merely coding the language of publication into the ISBN is known to increase sales. Distributors, bookstore chains and citation databases will not accept a book without an ISBN.

- The method of assigning an ISBN is nation-based and varies from country to country.
- In India, the Raja Rammohun Roy National Agency (RRMRNA), under the HRD Ministry, has been entrusted with this task.



### ***What is the problem?***

- Last year, the HRD Ministry digitised the allotment of ISBNs.
- Publishers complain that this move has inexplicably slowed down publishing in India.
- The new online application system has also raised fears of censorship, with the ministry seeking details of each book before issuing ISBNs.
- e.g Publishers have to provide the book jacket, which carries synopsis and blurbs from authors.

### ***What should be done?***

- The ISBN is purely taxonomic and the issuer is not supposed to have a regulatory function.
- If there is a problem in the quality of a book, it should be tested in a court of law.
- The government should divest itself of this function and devolve it to a private agency.

## **2.6 NATIONAL COMMISSION FOR MINORITIES**

### ***What is the issue?***

- Delhi High Court last week sought the Centre's response on a plea against government "inaction" on making appointments to the National Commission for Minorities (NCM).
- The governments' apathy towards minorities is clearly visible by its inaction by not appointing any members to the national Commission for Minorities.
- Earlier in March, Opposition members in Rajya Sabha protested against unfilled vacancies in the commissions for Scheduled Castes, Scheduled Tribes, Backward Classes and Minorities.
- The NCM is supposed to have a Chairperson, a Vice-Chairperson, and 7 members, at least 5 of whom should be from minority communities.
- The communities listed as minorities under the National Commission for Minorities Act, 1992, are Muslims, Christians, Sikhs, Parsis and Buddhists.
- Jains were included in the list in 2014.

### ***What is the difference between a constitutional and statutory body?***

- The power and authority vested in a constitutional body are very different from those vested in a statutory body.

- Constitutional bodies have greater autonomy; they can take up and inquire into many matters suo motu, and have powers of a civil court.
- Again, not all statutory bodies are the same — the National Human Rights Commission (NHRC) has more powers than the NCM.

### ***Why is there a need for such commission?***

- The Constitution is unambiguous about the rights of individuals, and of certain groups and minorities.
- The success of a pluralistic democracy lies in these rational and robust institutions which protect those rights, or give those abstract ideas shape on the ground.
- The degree of autonomy with which organisations like the NCM, NCSC, NCST or NCBC are able to function eventually decides how healthy a democracy is.
- These are systems that allow for a healthy evaluation of the state of the nation, a forum for airing of discontent, which ultimately strengthens the system, apart from allowing individuals to fully exercise their rights.

### ***What happened to the move to give the NCM constitutional status?***

- The Constitution (One Hundred and Third Amendment) Bill, 2004, proposed to establish a new Commission, with constitutional status.
- But it got trapped in the quagmire of who is a 'minority', and the Bill lapsed.
- The founding fathers of the Constitution, as well as the framers of the 1992 Act seemed to have a clear idea of who 'minorities' were.
- But the Supreme Court, in a matter concerning minority educational institutions, ruled in October 2002 that a state may be considered as the basic unit for the protection of the right of minorities to set up minority educational institutions .
- Subsequently, a May 2007 cabinet proposal defined minorities along these lines — so Hindus were a minority in states such as Jammu & Kashmir, Punjab, Arunachal Pradesh, Nagaland, Meghalaya and Mizoram.
- This presented complications, as religious and linguistic minorities had been historically defined in terms of their overall numbers in the country.
- While the NCM's recommendations are often ignored, the Centre is required to present its reports, along with an action taken report, to Parliament.
- In cases involving states, the NCM is obliged to advise or act in some way.

## **2.7 LEGALIZING GAMBLING**

### ***Why in news?***

India's top law panel is examining whether betting on sports and gambling in casinos and other places can be legalised.

### ***What will be the impact?***

- In a report on the subject in 2013, the FICCI has suggested that there is an informal Rs 300,000 annual betting industry in India despite the ban.
- In 2016, the Supreme Court had asked the law commission to study the possibility of betting on cricket.

- Gambling on the internet is hard to stop and a **law will mean regulating the sector** and allowing casinos and betting on cricket and other sports.
- Legalising casinos and other such gambling places could **regulate an informal industry** worth Rs 300,000 crore and also bring in thousands of crores in revenue, it is estimated.
- Regulation and taxation can yield large amounts of revenue for the exchequer and check crime.
- Several countries allow betting on sports. But, there are moral and ethical dimensions involved.
- It has to be seen if betting can encourage match fixing.
- So, **the regulatory frame work will have to be pretty strict.**
- India will also have to rely a lot on technology if it wants to legalise sports betting.

### 3. SOCIAL JUSTICE

#### 3.1 LANGUAGE POLICY

##### *What are the issues?*

- The Parliamentary Committee on Official Language recommended to the Central Board of Secondary Education (CBSE) to make Hindi compulsory in all CBSE-affiliated schools till Class X.
- A case is gaining momentum in favour of revisiting Part XVII of the Constitution which envisages the replacement of English language with Hindi at the national level and with other languages in the Eight Schedule in their respective states.
- Andhra Pradesh announced that a department will coin new Telugu words to replace English words in vogue now.
- Kerala declared that from May, Malayalam would be the sole language of the administration.
- If left unresolved, the language muddle is bound to affect both the efficacy of our educational system and the integrity of our judiciary.

##### *What is the constitutional mandate?*

- Article 348(1) stipulates the use of English in the Supreme Court and High Courts as well as for drafting Bills, Acts and Orders.
- Article 348(2) read with Section (7) of the Official Languages Act 1963 provides for Hindi or other official languages to be used in High Courts “in addition to English”.
- Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh have already been granted the right to use Hindi in their High Courts.
- The same right has been withheld from Tamil Nadu and Gujarat and Chhattisgarh which sought permission to use Tamil, Gujarati and Hindi respectively.
- With regard to the functioning of High Courts, all Indian official languages enjoy equal status.
- Therefore, demands for permission to use these languages in High Courts are bound to increase.

##### *What is the Court's stand?*

- A Constitution Bench in Karnataka Vs Recognised-Unaided Schools held that -
- Even for linguistic minorities, it is the fundamental right of parents to determine what their mother tongue is;

- A child, and on his behalf his parent or guardian, has the right to choose the medium of instruction at the primary school stage under Article 19(1)(a), and;
- The imposition of mother tongue at the primary school stage (by the State) affects the fundamental rights under Articles 19(1)(a) and (g) of the Constitution.
- So CBSE's move will face the danger of being struck down as unconstitutional.

### **What should be done?**

- It is time for India to relook its language policy under Part XVII which became obsolete more than 50 years ago.
- The nation must adopt mother tongue plus English, with Hindi accorded a pride of place for ceremonial occasions at national and international levels.

## **3.2 INDIAN EXCLUSION REPORT**

### **Why in news?**

Indian Exclusion Report (IXR) is released by the Centre for Equity Studies (CES) in New Delhi.

### **What is IXR about?**

- The 2016 IXR Report determines exclusion by taking into account four public goods, namely, pensions for the elderly, digital access, agricultural land, and legal justice for under trials.
- In its 2016 report, it has found out that the same historically disadvantaged groups such as Dalits, Adivasis, Muslims, and persons with disabilities and age-related vulnerabilities continue to remain as the most severely and consistently excluded groups of the society.
- It also profiles four highly vulnerable groups in terms of their access to these goods.

### **What does the report say on agricultural lands?**

- The dominant finding of this report is that the groups most severely and consistently excluded are Dalits, Adivasis, Muslims, and persons with disabilities and age-related vulnerabilities.
- On the provision of agricultural land as a public good, the IXR found that the pattern of land distribution **broadly reflects the socio-economic hierarchy**.
- The rate of landlessness was highest among Dalits, at 57.3%. Among Muslims, it was 52.6%, and 56.8% of women-headed households were landless.
- Around 40% of all those displaced by “development activity” were Adivasis.
- Where Dalits, Muslims and women owned land, the holdings were meagre in size, with **only 2.08% of Dalit households owning more than two hectares of land**.
- Also, the quality of land owned by Dalits was very poor, with 58% of it having no irrigation facility.
- Land reform efforts have not benefited Dalits, women or Muslims significantly, according to the IXR.
- Land allotments to SC/ST households were often only on paper, as allottees were forcefully evicted or not allowed to take possession.

### **What does the report say on IT access?**

- **Poverty and geographic location** were the two major barriers to digital access, with urban locations enjoying better Internet penetration rates.

- Government initiatives to improve IT access have been riddled with implementation problems and poor cooperation from government officials.
- The report warned that in the new thrust towards a cashless economy, digital exclusion can often also result in financial exclusion.

### 3.3 BEEF BAN

#### *Why in news?*

- The government of India has sought to effectively prohibit cattle slaughter across the country through rules made under the Prevention of Cruelty to Animals Act, 1960.
- The rules do not explicitly ban slaughter, they ban the sale and purchase of cattle for slaughter at agricultural markets and to put an end to all kinds of cattle slaughter across the country.

#### *What is the issue?*

- It is a constitutional misadventure on multiple grounds involving fundamental rights, separation of powers and federalism.
- Indian Parliament that enacted The Prevention of Cruelty to Animals Act, 1960 (the Act) and that legislation empowers the Government of India (as the executive) to make rules to implement the Act.
- The Act through section 11 criminalises cruel treatment of animals by listing a wide range of activities and then, in sub-clause (3)(e) of that very provision, declares that **killing an animal for food will not be an offence** unless it is “accompanied by the infliction of unnecessary pain or suffering”.

#### *What is the problem with the new rules?*

- In issuing this latest set of rules, the GoI has exercised power it does not have under The Prevention of Cruelty to Animals Act, 1960.
- In sub-clause (3)(c) of the Act, it is clearly stated that killing of animals permitted under other existing laws cannot be made an offence.
- Another glaring anomaly in the new rules is that the government **seems interested in preventing cruelty only to cattle**.
- If the government’s real interest was indeed the prevention of cruelty to animal due to slaughter, there cannot be any constitutionally acceptable reason for leaving out chickens, pigs, sheep, goats, fish, rabbits, etc.,
- It is evident that the real interest is not in preventing cruelty to animals but rather, in protecting cattle for other reasons.

#### *What is the stand of state legislations?*

- Different state legislations have variations on the kind of cattle that can be slaughtered and when they can be slaughtered.
- That is the reason for getting only buffalo meat in Delhi, the meat of bulls and bullocks in Kerala and a complete prohibition on slaughter of cows, bulls, bullocks and buffaloes in Madhya Pradesh.
- Such **prohibitions/regulations are achieved through separate state legislations** because the power to make such laws is given exclusively to the states under the constitution.
- The government is resorting to prohibit cow slaughter through the lens of animal cruelty because the power to make laws on animal cruelty is shared between the states and Union under the Concurrent List of the Constitution.



### *What are the other issues involved?*

- There is **no religious protection for the cow or any other cattle under the constitution** and the issue of cow slaughter in the DPSP is tied to agriculture and the interests of animal husbandry.
- The Union Environment Ministry's new rules banning sale and purchase of cattle and buffaloes for slaughter purposes in livestock markets across India is the seeming absence of any stakeholder consultations.
- The government's response has been that the idea is to allow only "healthy" mulch and agricultural purpose animals to be bought and sold in markets.
- What is sought to be curbed is only "unnecessary pain or suffering in the pre-slaughter stages as far as possible".
- There aren't separate categories of "beef cattle" and "dairy cattle" farmers in India.
- The farmer who rears buffaloes for milk sells the same animals for slaughter when they become unproductive.
- By killing the market for slaughter livestock, the government may end up destroying the market for dairy animals as well.

## **3.4 INDIAN EXCLUSION REPORT**

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- In its 2016 report, it has found out that the same historically disadvantaged groups such as Dalits, Adivasis, Muslims, and persons with disabilities and age-related vulnerabilities continue to remain as the most severely and consistently excluded groups of the society.
- It also profiles four highly vulnerable groups in terms of their access to these goods.

### *What does the report say on agricultural lands?*

- The dominant finding of this report is that the groups most severely and consistently excluded are Dalits, Adivasis, Muslims, and persons with disabilities and age-related vulnerabilities.
- On the provision of agricultural land as a public good, the IXR found that the pattern of land distribution **broadly reflects the socio-economic hierarchy**.
- The rate of landlessness was highest among Dalits, at 57.3%. Among Muslims, it was 52.6%, and 56.8% of women-headed households were landless.
- Around 40% of all those displaced by "development activity" were Adivasis.
- Where Dalits, Muslims and women owned land, the holdings were meagre in size, with **only 2.08% of Dalit households owning more than two hectares of land**.
- Also, the quality of land owned by Dalits was very poor, with 58% of it having no irrigation facility.
- Land reform efforts have not benefited Dalits, women or Muslims significantly, according to the IXR.
- Land allotments to SC/ST households were often only on paper, as allottees were forcefully evicted or not allowed to take possession, noted the report.



### **What does the report say on IT access?**

- **Poverty and geographic location** were the two major barriers to digital access, with urban locations enjoying better Internet penetration rates.
- Government initiatives to improve IT access have been riddled with implementation problems and poor cooperation from government officials.
- The report warned that in the new thrust towards a cashless economy, digital exclusion can often also result in financial exclusion.
- The IXR also noted with disapproval India's refusal to be a signatory to a non-binding UN Human Rights Council resolution to protect human rights on the Internet.

## **3.5 CHILD WELFARE**

### **Why in news?**

The Supreme Court directed the government, a range of measures to ensure children welfare in orphanages.

### **What is the case?**

- The verdict came on a PIL petition filed on the basis of a 2007 newspaper report.
- The report allege that orphanages in Mahabalipuram, run by NGOs as well as government institutions, were reportedly involved in systematic sexual abuse of children.

### **What the Supreme Court directs?**

- It directs to complete the registration of all child care institutions by year-end.
- The court said the registration process should also include a database of all children in need of care and protection and update it every month.
- It asked the authorities concerned to ensure confidentiality and privacy in maintaining the database.
- It mandated that the Union government and the governments of States and UTs must concentrate on rehabilitation and social re-integration of children in need of care and protection.
- It said Centre's schemes such as skill development and vocational training must be taken advantage of keeping in mind the need to rehabilitate such children.
- The Bench also directed the States and UTs to set up 'Inspection Committees' to conduct regular inspections of child care institutions.
- The committees need to prepare reports of such inspections so that the living conditions of kids there undergo positive changes.
- The court also directed that all vacancies in State Commission for Protection of Child Rights (SCPCR) be filled.
- The Bench mandated the government to consider alternative option like adoption and foster care.

## **3.6 CHILD MARRIAGE AMENDMENT BILL**

### **Why in news?**

President has given his assent to the Prohibition of Child Marriage (Karnataka amendment) Bill, 2016.

### **What is the status of child marriages in Karnataka?**

- Karnataka is among the States that record a high number of child marriages in the country
- According to a recent survey about 23% of the total married population are child marriages.
- A large number of child marriage cases are reported from north Karnataka, including Dharwad, Belagavi, Bagalkot, Koppal, Raichur and Vijayapura districts.

### **What is the amended bill is about?**

- The Bill was drafted based on the recommendations of a core committee headed by Shivaraj V. Patil, former Supreme Court judge.
- This bill will give greater power to the police and increasing the penalty for child marriage.
- The amended Bill seeks to ensure zero tolerance towards child marriage, granting powers to policemen and enhancing penalties for those attending wedding ceremonies of minors.
- While the original legislation does not prescribe a minimum punishment for offenders, the amendment proposes rigorous imprisonment of one year.
- It also enables any police officer to take cognizance of the offence.
- This bill will helps to eradicate the menace of child marriage in the next few years.

## **4. GOVERNANCE, TRANSPARENCY AND ACCOUNTABILITY**

### **4.1 MAKING LOCAL GOVERNMENT ACCOUNTABLE**

#### **What is the issue?**

- Looking back after 25 years, neither the Centre nor the States have made consistent efforts to build a viable local democracy.
- It is important to recognise that the **lack of a reliable and regular financial reporting system** is a serious lacuna in promoting credible and accountable local governments.

#### **How important is financial reporting?**

- Financial reporting is the process of producing consistent data as well as statements that disclose an organisation's financial status to stakeholders.
- In the case of governments, citizens constitute the most pertinent stakeholders.
- **The quality of democracy and its evaluation** depend a great deal on the reliability, regularity and consistency of the information placed in the public domain.

#### **What are Government's obligations?**

- The Centre and State governments are required to **present annual financial statements** (Articles 112 and 202), popularly called budgets, that consist of estimated receipts and expenditure before Parliament and the State assemblies.
- They provide important fiscal data on a regular basis and follow the accounting formats prescribed by the CAG. The **budgets have an admirable track record** as instruments of financial control and management.
- The Economic Survey of the Union Government supplements the fiscal data with a comprehensive set of macroeconomic information.

- **The budgets and the economic surveys** serve as authentic reports to the nation about the performance of the economy.
- Statutory bodies such as the Union Finance Commission **rely heavily on these data** to arrive at policy decisions, resource sharing, grants-in-aid allocations and so on.
- It is **surprising why the finances of local governments do not occupy a place of importance** in the public finance of the country.
- Along with the 73rd/74th amendments, Article 280 was also amended by adding two sub-clauses which mandate resource support by the Union Finance Commission to panchayats and municipalities on the basis of recommendations by the State Finance Commission.
- This underscores not only the significance of local governments in Indian federal polity but also the organic link underlying Indian public finance.

### *What is the economy of fiscal federalism?*

- Recent economic surveys acknowledge the growing income and wealth inequality in India, as well as increasing disparities in the accessibility of such vital services as healthcare and education.
- No citizen should be denied minimum comfort because of choice of location.
- How can a democracy ignore the spatial dynamics and the growing divergence in income, wealth, health, education and other infrastructure facilities?
- Local governments in India are **not equipped and empowered** to generate a reliable set of data which will enable proper monitoring of spatial reality at the micro level – the basis for arriving at relevant macro-level policy choices.
- Undoubtedly, **local government budgets** can serve as an instrument of financial control and supply a reliable and continuous data.
- This is not happening in India, not even in Kerala which has launched from April,1, 2011 an Accrual based Double Entry Accounting system in all the 1209 local governments following the series of financial reforms initiated by the Eleventh Finance Commission.

### *How vital is the budget mechanism?*

- The Budget is an acknowledged mechanism **to ensure accountability and financial control**.
- The Budget is also meant to continuously compare actual with budget numbers for the achievement of targets. That these are not happening in the local governments is an ominous trend.
- The passing of budgets by local bodies before March 31 every year is routinely done as a statutory requirement.
- Budgets and annual financial statements are not integrated; the numbers in these documents seldom tally and remain as disconnected exercises.
- This is fertile ground for **supporting rent-seeking regimes**. The basic principle of auditing that public money should be spent with wisdom, faithfulness and efficiency is violated with impunity.

### *What is the way forward?*

- The best way to improve the present situation is to **introduce budgeting and budgetary control** at the local level as essential components of fiscal management.

If all the District Planning Committees produce a **district economic survey** along with budgets working as operational fiscal tools, it is possible to generate and build a standardised fiscal database fulfilling all the mandatory requirements as well as an economic data complementing that.

## 4.2 CORRUPTION SCANDALS

### *Why in news?*

H C Gupta, a former coal secretary, was convicted and sentenced of by a CBI court for corruption.

### *How can IAS be reformed?*

- IAS has distinct two parts to it- One is its original and core function, to manage the districts; the other is an add-on function, to manage the ministries and policy.
- Both needs different skill set which is still not recognised.
- Amazingly, the core district management function is performed by the least experienced officers.
- The non-core function, on the other hand, is performed by the seniors, regardless of their competence to do so.
- Along with it the youngest officers are asked to do the hardest job of managing local politicians.
- Two things need to be done to fix this mismatch problem.
- One is to build a firewall between the two functions.
- The other is to stop the act of the centre “borrowing” officers from the states.
- It should have its own permanent cadre – not the central secretariat service which is a servicing force – instead of floaters from the states.

## 4.3 NITI AAYOG'S ACTION AGENDA

### *Why in news?*

NITI Aayog recently released its three year action agenda which is a part of a larger vision document which spans a seven-year strategy and a 15-year vision till FY32.

### *What is the document about?*

- The document is a **comprehensive framework for proposed policy changes** to be implemented in the short term in India.
- It covers the different sectors of the economy—agriculture, industry and manufacturing.
- It discusses the policies necessary for urban and rural transformation and a range of growth-enabling ingredients such as transport, digital connectivity and entrepreneurship.
- This agenda came after the end of the last fiscal year which also denoted the end of 12th Five-Year Plan.

### *What does the document offer?*

- India is now on the road to becoming a **full-fledged market economy**, with the legacy of planning behind us.
- But all governments need to look forward, if not explicitly to “plan”, but to **set priorities and develop instrumentalities** to achieve those priorities.

- A framework document of this scope could run the risk of saying something about everything, while offering nothing specific or actionable about anything.
- Contrary to the critics, **this document manages to inform, reason, and offer a distilled sense of priorities for policy reform.**
- Roughly 50% of India's workforce is employed in agriculture, which contributes only 15% of output.
- On the one hand, that suggests that workers should be moved away from this relatively low-productivity activity.
- On the other, it also requires that productivity in agriculture itself be improved to increase yields and benefit those workers who remain in the sector.
- Firms with less than 20 workers employ 72% of the manufacturing workforce and produce merely 12% of the manufacturing output.
- And nearly 40% of the services output is produced by merely 2% of the service sector workers, employed in the largest services firms.
- These facts in themselves point to the **urgent need for productivity enhancing reforms** in agriculture, manufacturing as well as services.
- The Agenda offers a number of compelling proposals ranging from the use of high-yield seeds to improved irrigation techniques to the removal of the infamous tariff inversion problem.
- In laying out these proposals, it also underscores the critical need to **enhance the scale of production** in each of the sectors.
- To deal with small and fragmented landholdings, the document proposes the use of a modern land-leasing law that balances and protects the rights of the tenant and landowners as a potential solution.
- For manufacturing, the document proposes the development of a few **Coastal Economic Zones (CEZs)** operating under a liberal economic environment (Ex. without the restrictive labour laws).
- The document's offer a detailed picture on transport and physical connectivity, as also on digital connectivity, the existing infrastructure framework, with many specific proposals on improving efficiency and closing gaps in coverage.
- The analysis and proposals provided in the Three Year Action Agenda range from the actionable to the aspirational.

#### 4.4 SWACHHSURVEKSHAN REPORT 2017

##### *Why in news?*

**Indore in Madhya Pradesh** has been ranked India's cleanest city in the Swachh Survekshan survey released by the government.

##### *What is SwachhSurvekshan?*

- Swachh Survekshan is a **ranking exercise to assess rural and urban areas for their levels of cleanliness and active implementation of Swachhata mission initiatives** in a timely and innovative manner.

- The objective of the survey is to encourage large scale citizen participation and create awareness amongst all sections of society about the importance of working together towards making towns and cities a better place to live in.
- The survey also intends to foster a spirit of healthy competition among towns and cities to improve their service delivery to citizens, towards creating cleaner cities and towns.
- The Ministry of Urban Development, Government of India takes up the Swachh Survekshan in urban areas and the Ministry of Drinking Water and Sanitation in rural areas.
- The **Quality Council of India (QCI)** has been commissioned the responsibility of carrying out the assessment.

#### ***How cities are ranked?***

- The cities surveyed were ranked on criteria which included solid waste management, open defecation-free status, citizen participation and independent observation.
- According to the government, these 434 cities and towns where the survey has been conducted account for 60% of the country's urban population.
- They were assessed on a **total of 2000 marks**.

#### ***What are the key findings of the report?***

- Results of 2017 survey confirmed that a major transformation in respect of sanitation is taking place in Madhya Pradesh, Gujarat, Jharkhand, Chhattisgarh, Andhra Pradesh and Telangana.
- There is **80% improvement in cleanliness in cities and towns** over the last year.
- Sanitation-related infrastructure and services like waste collection and processing have also improved.
- **Last year, Mysore, which topped** the survey last year, has been ranked fifth this year.
- Mysore continues to score over 87%. This shows that there is no decline in sanitation levels from last year but other cities have scored better.
- Faridabad in Haryana has been ranked as the fastest moving city, securing an overall rank of 88, an improvement from 2016 where it was in the bottom one-third.
- Varanasi, has improved to rank 32 this year from 418 in 2014.

#### ***What is the status of Delhi?***

- New Delhi Municipal Council (NDMC) was ranked 7 out of 434 cities surveyed. Last year, it was ranked 4 out of 73 cities.
- Despite being declared "open defecation-free" by the Urban Development Ministry and seeing the launch of several initiatives to improve solid waste management, the NDMC saw its rank dipping.
- NDMC had been adjudged the best in the "North Zone" in the Swachh Survekshan.

### Top 5 cities

City	2017 rank	2016 rank
Indore	1	25
Bhopal	2	21
Visakhapatnam	3	5
Surat	4	6
Mysuru	5	1

## 4.5 COAL BLOCK ALLOCATION CASE

### Why in news?

The three Coal Ministry officials, including former Secretary, were convicted.

### Why were they convicted?

- The secretary was the chairperson of the screening committee that recommended allocations.
- It functioned for years without regard for guidelines, norms or transparency.
- The three officials have been found guilty of abusing their positions to procure a coal block for Kamal Sponge Steel and Power Limited.
- Special CBI Court has now ruled that Coal Ministry officials deliberately allowed an incomplete application from an ineligible company to be taken up for consideration.
- The accused actually let all applications pass without any checking and arbitrarily exercised their discretion in favour of those companies.

### What is the significance?

- It is the logical consequence of the 2014 Supreme Court order declaring all coal block allocations made since 1993 illegal and arbitrary.
- Two previous trials had ended in convictions, but those held guilty were officials of private companies who had deceived the authorities into allotting them blocks.
- This judgment marks the first case in which individual criminal liability has been fixed on public servants in the coal block scam.
- The verdict may become a benchmark for other ongoing prosecutions on similar lines.
- The case also raises questions about the role and responsibility of a Secretary to the government, who is not only the administrative head of a department but also an adviser to the Minister on matters of policy.

## 4.6 EVM HACKING DEMONSTRATION

### Why in news?

In Delhi Assembly on May 9<sup>th</sup>, the Aam Aadmi Party (AAP) legislator used an electronic voting machine (EVM) prototype to highlight a possible hacking of the actual EVM used by the Election Commission of India (ECI).



### ***What are arguments of the demonstrators?***

- It registered votes for candidates and allowed for the ballot unit to display total votes polled by each candidates checked at the end of polling.
- It also demonstrated that **the use of malicious code by a voter affiliated to a certain party could fix the results** to be different from the actual tally and in favour of that party and, demonstrated that the machine could be hacked.
- It indicated that this is how EVMs are being hacked in the country and that it is easily possible to do the same with the ECI's EVMs.
- The ECI as an authority is in charge of only certain aspects of safekeeping and monitoring of EVMs and that many others such as **procurement of microcontrollers from abroad, calibration of machines are done externally.**
- It is in these stages that the manipulation can be done beforehand.

### ***What is the real scenario?***

- In reality, the ECI's EVM does not allow for any Trojan horse (malicious code) enabled key presses.
- Only one key press on the ballot unit is allowed during the act of voting and recognised by the control unit, so the use of a secret code to lock the tally in favour of a party as alleged by the demonstration does not hold true in the case of the ECI's EVM.
- For the demonstrated things to happen, a large-scale operation of changing the microcontroller embedded in every EVM to be used in an election is required.
- This is only possible if there is direct collusion between the ECI authorities who are in charge of storage, commissioning and allocation.
- Quality control checks are done during and after manufacture of EVM's.
- The ECI's new models (M2 and M3) prevent tamper-proofing by time-stamping key presses and provide for encryptions and tracking software that handle EVM logistics.

### ***What is the way forward?***

- EVM-hacking demonstration did not raise any relevant questions about the technical and procedural safeguards that are already in place and set by the ECI.
- The EVM needs to constantly evolve in order to remain secure and workable under any condition while at the same time keeping its operations simple.
- The answers to the present stability in the AAP's electoral growth lie in the application of its politics and not in technology.
- The solution to the AAP's problems lies in politics, not wild accusations about EVMs.

## 5. HEALTH

### 5.1 WHO GUIDELINES ON HIV-AIDS

#### *What is the issue?*

India has aligned its policy with the guideline of World Health Organisation which recommended that **antiretroviral therapy (ART)** be initiated in people living with HIV irrespective of the **CD4 (a type of white-blood cell) counts**.

#### *What are the changes made to the guidelines?*

- It was in 2002 that the WHO first issued its ART guidelines. In the absence of AIDS-defining illnesses, the WHO set CD4 count less than 200 cells per cubic millimetre as the threshold to begin ART treatment.
- Over time, it changed its guidelines and, in 2013, increased the threshold to CD4 count less than 500 cells per cu. mm.
- In 2015, the WHO once again changed its guidelines. Accordingly, it recommended that ART be initiated in HIV-positive people at any CD4 cell count.

#### *Why WHO recommended this?*

- The recommendation was **based on the evidence** that an earlier initiation of ART will help people with HIV live longer, remain healthier and “substantially reduce” the risk of them transmitting the virus to others.
- Thus, based on evidence since 2013, it became clear that an earlier use of ART, irrespective of the CD4 count, **results in better clinical outcomes**.
- The availability of safer, affordable and easy-to-manage medicines that could help to lower the amount of virus in the blood played a key role in the WHO’s decision.
- Earlier initiation could **avert an additional three million deaths** and **prevent 3.5 million more new HIV infections** between 2013 and 2025, noted the WHO in 2013.
- Nearly 4.5 lakh deaths can be averted through this move.

#### *What are the challenges?*

- As per 2015 estimates, India has 2.1 million HIV-positive people, of which **only 1.6 million have been diagnosed** and about a million are on treatment.
- But over half a million people are not even aware of their HIV status.
- With the government changing its treatment guidelines, the 0.6 million who have been diagnosed but not been on treatment are now eligible for treatment.
- The biggest challenge will be to identify the 0.35 million who have been diagnosed but not on treatment and the 0.5 million who have been infected but have not been diagnosed.

#### *What is the way ahead?*

- Even as efforts are on to expand the 1,600 treatment delivery sites that are currently operational, **there should be greater focus now on identifying people with HIV**.
- The government has plans to start **community-based testing** to bring it closer to those in need, and **target special groups** that are more vulnerable to infection such as partners of people who are HIV-positive.

## 5.2 GENERIC MEDICINES

### *Why in news?*

The Medical Council of India (MCI) issued a circular on April 21, 2017 drawing attention to clause 1.5 of its regulations regarding the professional conduct of doctors.

### *What is the issue?*

- It noted that every physician should prescribe drugs with generic names legibly and preferably in capital letters and he/she shall ensure that there is a rational prescription of drugs.
- The circular also added that, “For any doctor found violating clause 1.5 of Ethics Regulation, suitable disciplinary action would be taken by the concerned SMC/MCI.”
- This has caused considerable unease among medical professionals.
- This move is done **to break the unholy doctor-pharma nexus** results in a symbiotic relationship leading to unnecessary, expensive prescriptions.

### *Why is the new rule a major concern?*

- The circular simply shifts the focus of promotional activities of generics to the pharmacists.
- There is the moral hazard that **pharmacists will dispense the brand which offers them the biggest margin.**
- Thus the current move by the MCI therefore will not reduce prices for the consumer.
- The most effective way to maintain quality is to have periodic testing and stringent disincentives for poor quality.
- Some argue that **bioavailability and bioequivalence** (BA and BE) of generics may not be equal to the original brand.
- Bioavailability refers to the rate and extent to which the active ingredient of the drug present becomes available at the site of action of the drug.
- In order for a new generic drug to be licensed, it has to be bioequivalent to the reference drug. It means that BA of the generic drug is similar to that of the reference drug.
- Of the approximately 800 useful drugs known to modern medicine, bioequivalence is really only important for a few drugs with low solubility and high or low permeability, so the debate about BA and BE is somewhat misinformed.

### *What could be done?*

- The need of the hour is **resolving the chronic shortage of drug inspectors** who look after the quality control at manufacturing and the dispensing sites of medicines.
- A logical step would have been to **institute better quality control** in the manufacture of generic drugs first, test their bioequivalence, build doctor and patient confidence on the product and then, push for a change in prescription behaviour of physicians.
- The current method of price control legitimises **margins of up to 4000% over the cost of the product.**
- The core issues are affordable access to medicines and their rational prescription and use.

- These objectives require an enlarged list of essential and life-saving medicines under price control, elimination of all irrational FDCs, no brands for drugs off patent, and briefer officially approved names to make it easier for doctors to prescribe generics including the rational FDCs.
- Bringing in a **National Medicine Pricing Policy** would be a simple but very effective way in controlling drug prices, without taking away the choice of prescription from doctors.
- Prescription pattern monitoring rules need to be implemented stringently to dent the doctor-pharma nexus.
- Increasing drug manufacturing units and investing heavily in drug research and development will effectively make India “drug self-sufficient” with a wider and cost-effective “drug reach”.
- Better control of branded generics and patent generics are also measures the government should work on.

### 5.3 THALASSEMIA IN INDIA

#### *What is the issue?*

- World thalassemia day is on May 8.
- As the number of thalassaemics grows in India, a prevention and control programme is nowhere in sight.
- There is no national plan in our country for a disease with no cure, which is globally threatening.

#### *What is Thalassaemia?*

- Thalassaemia is a genetic blood disorder commonly characterised by the abnormal production of haemoglobin in the body.
- The abnormality results in improper oxygen transport and destruction of red blood cells.
- It has wide-ranging effects on the human body like iron overload, bone deformities and in severe cases can cause heart diseases.
- The disease has no cure and people living with thalassaemia require regular blood transfusions as an effective measure to prolong life.

#### *What is the position of the disease in India?*

- India is the thalassaemia capital of the world with 40 million carriers and over 1, 00,000 patients.
- There is no prevention and control programme at the national level.
- With preventive health checks not being the norm in India, people suffering from thalassaemia are unknowingly passing on this genetic disorder to their children.
- Over 1, 00,000 patients across the country die before they turn 20 due to lack of access to treatment.
- The Centre for Health Ecologies and Technology (CHET), framed first ever draft policy in India for rare diseases, it is submitted to the Karnataka government in March 2016.

#### *What are the steps taken by other countries?*

- The neighbouring Pakistan, a Bill making carrier testing compulsory for relatives of thalassaemia patients was passed in February.
- A similar system is in place in Dubai, Abu Dhabi and Saudi Arabia.

### *What is the way forward?*

- There is no known cure for thalassemia except bone marrow transplant (BMT) and most patients in India can neither afford it nor do they have relevant matches with siblings or others.
- BMT can be done only for children up to the age of 10, after which it is a serious risk.
- The treatment is so expensive in India government should take necessary step in this regard
- The effort to provide patients better health care is largely spearheaded by the private sector and non-governmental organisations.
- National policy on Thalassemia will help in not just creating awareness about the disease but also ensure treatment for all and strategies to prevent its spread.

## **5.4 AMR AND PHAGE THERAPY**

### *Why in news?*

Phage therapy has been emerged as a new counter measure for Antibody resistance.

### *What is antibiotic resistance?*

- Antimicrobial resistance (AMR) is the ability of a microbe to resist the effects of medication previously used to treat them.
- **Resistance arises through one of three ways:** natural resistance in certain types of bacteria, genetic mutation, or by one species acquiring resistance from another.
- Resistance can appear due to random mutations; or more commonly following gradual build-up over time, and because of misuse of antibiotics or antimicrobials.
- **Resistant microbes are increasingly difficult to treat**, requiring alternative medications or higher doses, both of which may be more expensive or more toxic.
- Microbes resistant to multiple antimicrobials are called multidrug resistant (MDR); or sometimes **superbugs**.
- Antimicrobial resistance is on the rise with millions of deaths every year.
- All classes of microbes develop resistance: fungi develop **antifungal resistance**, viruses develop **antiviral resistance**, protozoa develop **antiprotozoal resistance**, and bacteria develop antibiotic resistance.

### *What is the Global impact of AMR?*

- Over the past decades, antimicrobial agents have been revolutionary in alleviating communicable diseases across the world.
- In the US, more than two million people fall sick every year due to antibiotic-resistant infections, resulting in at least 23,000 deaths.
- While antibiotic resistance is a global hazard to public health, India, the largest consumer of antibiotics in the world, is notoriously seen as the epicentre of this threat.

### *What is the position of AMR in India?*

- There is widespread existence of superbugs throughout the country.
- The crude infectious disease mortality rate in India today is 416.75 per 100,000 persons, which is twice the rate prevailing in the US.

- Some important factors responsible for the rising antibiotic resistance in India are.
  - Indiscriminate use of antimicrobial drugs
  - Laxity of regulatory bodies in approval of antibiotics
  - Lack of public awareness about antibiotic resistance
  - Injudicious use in veterinary practices
  - Overburdened health infrastructure and inequity in healthcare.

#### **What is the new therapy is about?**

- **Bacteriophage therapy** or simply phage therapy holds promise as an alternative treatment option.
- **Bacteriophages are viruses that infect and kill bacteria.**
- The revitalisation of phage therapy has received increased global attention since the appearance of multidrug-resistant bacteria.
- The most striking advantage of bacteriophage therapy is the **ability to tailor treatment accurately to kill the pathogenic bacteria** provided the diagnostic procedures are highly accurate.

#### **What is the way forward?**

- **Capacity building and sensitisation** of all the stakeholders is an integral pre-requisite of this programme.
- The **multidisciplinary team members** comprise an infectious diseases physician, a clinical pharmacist, a microbiologist, an infection control team, a hospital epidemiologist, an information system specialist, quality improvement staff, laboratory staff and nurses is required in every public health department.
- Antibiotics should only be used when needed as prescribed by health professionals.
- The prescriber should closely adhere to the five rights of drug administration: The right patient; the right drug; the right dose; the right route and the right time.

### **5.5 EVIN INITIATIVE**

#### **Why in news?**

Members of a five country international delegation (Philippines, Indonesia, Bangladesh, Nepal and Thailand) are on a visit to India to learn more about the global best practice of electronic Vaccine Intelligence Network (eVIN) project of the Health Ministry.

#### **What is eVIN?**

- eVIN is an indigenously developed technology system in India that digitizes vaccine stocks and monitors the temperature of the cold chain through a smartphone application.
- It is presently being implemented across twelve states in India.
- It aims to support the Government of India's Universal Immunization Programme by providing real-time information on vaccine stocks and flows, and storage temperatures across all cold chain points in these states.
- The technological innovation is implemented by the United Nations Development Programme (UNDP).
- It aims to strengthen the evidence base for improved policy-making in vaccine delivery, procurement and planning for new antigens in India.

- It provides an integrated solution to address widespread inequities in vaccine coverage by supporting state governments in overcoming constraints of infrastructure, monitoring and management information systems and human resources, often resulting in overstocking and stock-outs of vaccines in storage centres.

## 5.6 HEALTHCARE ACCESS AND QUALITY RANKING

### *Why in news?*

The latest Global Burden of Disease (GBD) study was published in the medical journal The Lancet with the rankings for healthcare access and quality (HAQ).

### *What is HAQ?*

- The Global Burden of Diseases, Injuries, and Risk Factors study is done by the Institute for Health Metrics and Evaluation (IHME).
- It is an independent population health research centre associated with the University of Washington, along with a consortium of 2,300 researchers in more than 130 countries.
- The HAQ Index is based on death rates from 32 ailments that could be avoided by timely medical intervention.

### *What are the findings?*

- In the HAQ, India has fallen 11 places, and now ranks 154 out of 195 countries.
- Newborns in India have a lesser chance of survival than babies born in Afghanistan and Somalia.
- Further, India's healthcare index of 44.8 is the lowest among the sub-continental countries,
- Sri Lanka (72.8), Bangladesh (51.7), Bhutan (52.7), and Nepal (50.8) all fared better.
- The top-ranked nation was Andorra with an overall score of 95 and the lowest-ranked nation was Central African Republic at 29.
- In the case of neonatal mortality, India scored 14/100.
- Access to tuberculosis treatment in India was scored 26/100.
- It is lower than Pakistan (29), Congo (30) and Djibouti (29).
- For diabetes, chronic kidney diseases, and congenital heart diseases, India scored 38, 20, and 45, respectively.
- India's downward slide in the rankings indicates that it has failed to achieve health care targets, especially those concerning neonatal disorders, maternal health, tuberculosis, and rheumatic heart disease.

## 5.7 NEGLECTED TROPICAL DISEASES

### *What is the issue?*

Around the world, nearly 1.6 billion people are affected by a group of diseases so ignored that the term used to refer to them is called neglected tropical diseases (NTDs).

### *What is the disease about?*

- These are a **cluster of 17 diseases** affecting the poorest people living in the least developed pockets.
- While some of these diseases may be unfamiliar, leprosy, kala-azar and filariasis are better known in India and being targeted for elimination.



- A disease is considered 'eliminated' when the prevalence rate is less than 1 case per 10,000 population size.
- The Indian government has set itself the target of eliminating kala-azar and filariasis by 2017, and leprosy by 2018.

### *What is government doing towards leprosy eradication?*

- ICMR has produced two rapid diagnostic tests and a uniform multidrug regimen for all types of leprosy.
- This has shortened treatment duration to 6 months.
- An indigenous vaccine developed by the National Institute of Immunology, launched for the leprosy control programme.
- The vaccine, mycobacterium indicus pranii (MIP), will be administered to people living in close contact with patients.
- The vaccine offers 60% protection to people living with leprosy patients for up to 4-5 years.
- This renewed strategy aims for leprosy elimination ahead of the 150th birth anniversary of Mahatma Gandhi, in 2019.
- To eliminate leprosy, India needs to **tackle the stigma** associated with the disease.
- It leads to delays in diagnosis and treatment, which in turn result in continued transmission of infection within families and communities.
- In 2015-16, 118 districts in India were endemic for leprosy with a prevalence rate of more than 1 per 10,000.

### *How is the government tackling filariasis?*

- In the case of lymphatic filariasis, better known as elephantiasis, the government is targeting a population of 600 million in 256 endemic districts with mass drug administration (MDA).
- A community-based pilot in Yadgir district of Karnataka is being done to assess the effectiveness of a three-drug combination vis-à-vis the existing two-drug regime.
- Mass administration of DEC-fortified salt to accelerate elimination of lymphatic filariasis is being tried in the Andamans.
- Ensuring that the entire target population accepts MDA needs advocacy and community engagement.

### *How is Kala-azar managed by the government?*

- The other key intervention is for visceral leishmaniasis (VL) or kala-azar, which is transmitted through the bite of the female sandfly.
- In India, a majority of cases are reported in Bihar, Jharkhand, Uttar Pradesh and West Bengal.
- Rapid diagnostic tests followed by single day treatment now makes rapid cure possible.
- Sandflies breed on mud walls, so vector control by indoor spraying with insecticides and ultimately with improved housing can result in their control.

### *What could be done?*

- **Continued surveillance** and epidemiologic data collection is necessary to ensure that the disease continues to be under control.

- Besides basic research, the discovery of new facts about a disease, vaccines and drugs along with new strategies and sustained research are needed to make an impact.
- **Partnerships with diverse stakeholders** are useful in creating awareness, improving case detection, treatment completion and, most importantly, managing stigma.
- Timely diagnosis and treatment access in unreached areas, focussing on the fundamentals of preventive interventions, nutrition, safe drinking water, sanitation and hygiene are essential in fast-tracking the goal of elimination.

## 6. INDIA AND ITS NEIGHBOURHOOD

### 6.1 INDIA SRILANKA TIES

#### *Why in news?*

Sri Lankan Prime Minister meeting with Prime Minister Narendra Modi in New Delhi, on his third visit to the capital since January 2015.

#### *What happened and what must be done?*

- Both PM's flagged off partnerships in a host of economic and development projects through a Memorandum of Understanding, ranging from energy and infrastructure to special economic zones.
- Both countries ties are **centred around economic and security concerns**, and far less on political matters.
- Preoccupied with an ever-growing Chinese presence in Sri Lanka, India has been channelling its energies towards countering it, especially **focussing on Trincomalee**.
- India and Sri Lanka have agreed to jointly revive a World War II era oil storage facility in the **strategically located eastern port town** and build infrastructure around it.
- India has pledged **\$2.6 billion in development assistance** to Sri Lanka, but should also explore the potential for generating livelihoods in the war-battered northern economy where agriculture and fisheries, are facing a crisis.
- Both countries **should also concentrate on political concerns** in the island nation where scores of Tamils and Muslims in the north and east are yet to return to normal lives eight years after the civil war ended.
- Hundreds of people have been protesting, voicing concern about the mysterious disappearance of their relatives and about their **land still under military occupation**.
- India must continue to closely engage on these fronts and build a holistic relationship that transcends the mere transactional.
- Resolving the long-standing Palk Bay conflict between fishermen of both countries is central to this, and New Delhi must address the valid concern of Sri Lankan Tamil fishermen about incursions from Tamil Nadu into Sri Lankan waters.
- Several factories in the north, destroyed or defunct during the war, await attention and investment.
- While New Delhi's anxiety over Chinese presence might be justified, it **should avoid using the China lens to view Sri Lanka**, respecting the country's autonomy to engage with any willing partner.
- The more India treats Sri Lanka as an equal partner, the stronger the relationship is likely to grow.

## 6.2 KULBHUSHANJADHAV – ICJ VERDICT

### *Why in news?*

- India won the plea against Pakistan to grant counsellor access to Indian national KulbhushanJadhav.
- Preliminary order from the International Court of Justice that **prevents Pakistan from carrying out the execution** of Indian national KulbhushanJadhav.

### *What is the International Court of Justice?*

- It is the primary judicial branch of the United Nations (UN), seated in the Peace Palace in The Hague, Netherlands.
- The court settles legal disputes submitted to it by states and provides advisory opinions on legal questions submitted to it by duly authorized international branches, agencies, and the UN General Assembly.
- The ICJ is composed of **fifteen judges elected to nine-year terms** by the UN General Assembly and the UN Security Council from a list of people nominated by the national groups in the Permanent Court of Arbitration.
- **Five judges elected every three years** to ensure continuity within the court.
- **No two judges may be nationals of the same country.**
- The p5 members of the UNSC(France, Russia, China, the United Kingdom, and the United States) always have a judge on the Court.
- The exception was China, which did not have a judge on the Court from 1967 to 1985 because it did not put forward a candidate.
- Judges may deliver joint judgments or give their own separate opinions.
- Decisions and Advisory Opinions are **by majority**, and, in the event of an equal division, the President's vote becomes decisive.

### *What are the drawbacks of the court?*

- **Absence of binding**, which means that the 193 member states of the ICJ do not necessarily have to accept the jurisdiction, since it raises the question of sovereignty of the countries.
- Organizations, private enterprises, and individuals cannot have their cases taken to the International Court of appeal a national supreme court's ruling.
- Other existing international thematic courts, such as the ICC, are not under the umbrella of the International Court.
- Such dualistic structure between various international courts sometimes makes it hard for the courts to engage in effective and collective jurisdiction.
- The International Court **does not enjoy a full separation of powers**, with permanent members of the Security Council being able to veto enforcement of cases, even those to which they consented to be bound.

### *What are the highlights of the Judgement?*

- Pakistan should now inform the court about the steps it takes to implement the order.
- The ICJ judges are clear that these provisional measures are binding and create international legal obligations for the country to which they are addressed.

- The ICJ has rejected Pakistan's objections regarding the urgency of the matter.
- It rejected Pakistan's own jurisdiction to take up the case and its claim that a 2008 bilateral agreement between the two countries precluded the matter from being raised before the ICJ.
- It noted that irreparable partiality would be caused if the court did not indicate provisional measures, especially in the absence of any assurance from Pakistan that he would not be executed before the final decision.
- This case is about politics, not law; **the judgment simply puts the execution on hold until the dispute is resolved.**

### **What is the way forward?**

- It may appear to be a complete victory for India on the questions of jurisdiction, urgency and the core charge that Pakistan violated the Vienna Convention.
- However, this is a preliminary ruling and all issues are open for adjudication at the final stage.
- It is theoretically possible for Pakistan to ignore the ICJ's order and go ahead with its internal processes for the disposal of appeals and clemency petitions; it is unlikely to do so. Such a course of action would undermine its international credibility.
- India will have to **leverage the moral and diplomatic advantage** it has obtained through this ruling to help Mr. Jadhav prove his innocence before a civilian court and win his freedom.
- Pakistan must act responsibly and abide by the fundamental norms of international law.

## **6.3 EASING THE TRAVEL RESTRICTIONS ON 17<sup>th</sup> KARMAPA**

### **Why in news?**

Urgyen Trinley Dorje, the 17th Gyalwang Karmapa, may be allowed to visit any place in the country, except Sikkim, without seeking the government's permission.

### **Who is Karmapa?**

- The Karmapa is the head of the Karma Kagyu, the largest sub-school of the Kagyu is one of the four major schools of **Tibetan Buddhism**.
- The historical seat of the Karmapas is Tsurphu Monastery in the Tolung valley of Tibet.
- The Karmapa's **principal seat in exile** is the Dharma Chakra Centre at Rumtek Monastery in **Sikkim, India**.
- Due to a controversy within the Karma Kagyu school over the recognition process, **the identity of the current 17th Karmapa is disputed.**

### **Why the travel ban?**

- Karmapa who was born in eastern Tibet had fled the country in 2000 and escaped to India when he was 14-year-old.
- For years since his arrival in India, the government agencies have been skeptical and allegedly **suspected him to be a Chinese spy.**
- A central government order passed by the Cabinet Committee on Security (CCS) had banned the Karmapa's travel to Rumtek monastery in Sikkim and other areas of strategic importance like Lahaul and Spiti in Himachal Pradesh without permission.

- In 2011, the police had recovered Rs 1.2 crore of unaccounted-for foreign currency, including Chinese ones from the Monastery in Dharamsala.
- The police registered a case and then the government put more restrictions on his travel.

## 7. BILATERAL RELATIONS

### 7.1 INDIA'S STAND ON PALESTINE

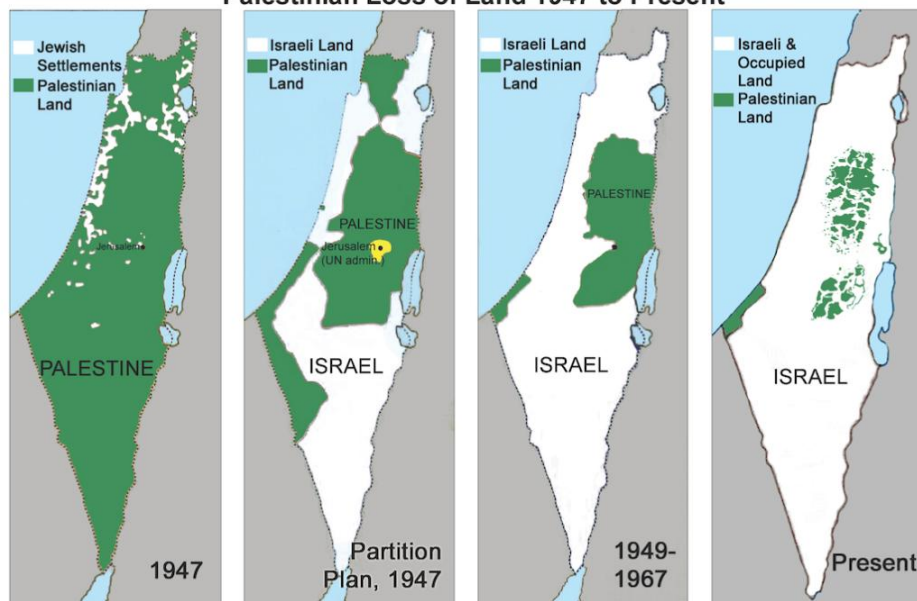
#### Why in news?

Recent visit of Palestine President Mahmoud Abbas to New Delhi – his fifth since being elected as the successor to Yasser Arafat in January 2005, and his first after Modi became Prime Minister.

#### How India viewed Palestine conflict?

- In the early 1920s and amidst the Khilafat struggle, Indian nationalists made common cause with the Arabs of Palestine and **adopted a position that was unsympathetic to the Jewish aspirations** for a national home in Palestine.
- Adopting an identical position, the Indian National Congress opposed the idea of religion-based partition in India as well as in Palestine.
- **Mahatma Gandhi's 1938 statement** said “Palestine belongs to the Arabs in the same sense that England belongs to the English and France to the French”.
- Despite eventual recognition of Israel in September 1950, India did not establish diplomatic relations with the it.
- **Prime Minister NarasimhaRao hosted Arafat in 1992** for the first time and signalled India's intention of abandoning its four decades old policy of non-relations with Israel.
- Recently **India's 'unwavering support' for the Palestinian cause** is also witnessed by a subtle but unmistakable shift in its policy towards the Israeli-Palestinian conflict.
- India has signalled a new approach towards Palestine as well as the wider Arab-Israeli conflict.

**Palestinian Loss of Land 1947 to Present**



### ***What are the changing dynamics in India's relationship with Palestine?***

- The BRICS summit in Fortaleza, Brazil reaffirmed the member-states' commitment to a two-State solution with a contiguous and economically viable Palestinian State existing side by side in peace with Israel.
- **BRICS nation called for a mutually agreed and internationally recognized borders** based on the 4 June 1967 lines, with East Jerusalem as Palestine capital.
- But India signalled its change in stand when it **abstained** in the UN Human Rights Council (UNHRC) vote on alleged 'war crimes' being committed by Israel as well as by Hamas during the 2014 war, referred to by Israel as **Operation Protective Edge**.
- Only a year earlier, India had voted with others in the Council to institute an international inquiry into the Gaza violence and attributed its shift to a reference to Israel being taken to the International Criminal Court.
- **India once again abstained** in March 2016 when the UNHRC voted on a similar resolution.
- The present Indian government stands clearly spells out that it is keen to further bilateral relations with Palestine, India is no longer willing to view its Israel policy through the traditional Palestinian prism.
- In the recent meet Indian PM reiterated India's support for "a sovereign, independent, united and viable Palestine, co-existing peacefully with Israel."
- Indian PM also left out the sentence "East Jerusalem as the capital of the Palestinian state".
- By not referring to East Jerusalem as the capital of the future Palestinian State, India has signalled a major departure from the past.
- **India is no longer prepared to endorse the exclusive Palestinian claims over the City** but desires a negotiated political settlement based on mutual respect and accommodation.
- By departing from the past, much of Indian PM's focus has been on developmental issues such as 'capacity-building', 'information technology, youth and skills development', 'Techno-park', 'our cultural exchanges', and 'Yoga exchanges' rather than political issues.

### ***What is the internal division present within Palestine?***

- Palestinians have been living under two political controls.
- The internationally recognised PNA headed by Abbas whose authority is limited to the West Bank, and an increasingly isolated Hamas-ruled Gaza Strip.
- Western powers recognised the Palestine Liberation Organization (PLO) as the 'sole and legitimate representative of the Palestinian people'.
- But Hamas challenges it and indulges itself in the virulent campaign of suicide attacks and weakening all the Palestinian institutions instituted till now.
- Thus by calling for a 'united Palestine', India is making a great stride in helping Palestine unify itself.

## **7.2 INDIA – TURKEY RELATIONS**

### ***What is the issue?***

Recently, the Turkish President Erdogan visited India.

### ***How well is India's relationship with Turkey?***

- On global issues, India was non-aligned and Turkey, a member of the Western Cold War alliances.



- Turkey was also part of a regional military bloc — the Baghdad Pact — that Great Britain stitched together in the early 1950s with Turkey, Iraq, Iran and Pakistan.
- The **friendship treaty with Turkey** that Jawaharlal Nehru signed in 1951 underlined India's hopes for building a lasting partnership in the post-colonial era.
- On regional issues, **Turkey tilted to Pakistan on the Kashmir question**, and India moved closer to Nicosia in Turkey's dispute with Cyprus.

#### ***What are the potential areas of cooperation?***

- Beyond the prospects for cooperation in **countering terrorism and extremism**, Turkey is also eager to develop **economic and trade ties** with India.
- It is eager to find new partners like India that can boost Turkey's economic prospects and lend its foreign policy greater depth.
- Turkey is an important regional player that must be factored into India's current recalibration of its Middle East policy.
- The essence of the strategy was to raise their economic and political stakes in India and make Pakistan less salient for the bilateral relationship with Delhi.

#### ***What is Turkey's view on India?***

- Erdogan **called for a de-escalation of the Kashmir violence** and urged India to embark on dialogue with Pakistan to resolve the long-standing dispute.
- He also affirmed that Turkey would like to see both India and Pakistan in the Nuclear Suppliers Group.
- Erdogan was making it clear that he would not dilute Turkey's friendship with Pakistan in order to build a new partnership with India.

#### ***What was India's response?***

- This **suggestion is against the Indian position** that the Kashmir issue has to be resolved through bilateral negotiations with Pakistan based on the Shimla Agreement and Lahore Declaration.
- There are also other problem areas including Turkey's position on India's membership in the Nuclear Suppliers Group (NSG).
- Turkey maintains that there needs to be a procedure that should be equally applicable to all and argues that both India and Pakistan have a fair claim for NSG membership.
- India was careful in its response to the raising of the Kashmir issue.
- Since India has been apprehensive of the Turkish position and rhetoric on Kashmir, New Delhi scheduled **engagements with Armenia and Cyprus** close to Erdogan's visit.
- A week before Erdogan's visit, India hosted Cyprus President, given the Turkish involvement in the Cyprus conflict.
- India has maintained good relations with Cyprus since its independence and has supported its stand on the conflict with Turkey.
- Vice President Hamid Ansari visited Armenia and the Armenian genocide memorial and paid his tributes to the victims.

- This is a sensitive issue for Turkey because of the historical involvement of the fathers of the modern Turkish republic in the killings of Armenians at the height of their national struggle.
- Turkey has been wary of the world recognizing the ‘**Armenian genocide.**’
- India was engaging with Turkey’s adversaries while at the same time signalling its ability to raise controversial issues detrimental to Ankara’s interests.

#### **What should be done?**

- Despite the major differences, there are **some common grounds** which the two sides are looking to capitalize on.
- From the bilateral viewpoint, the visit was focused on **three aspects** – improving trade; enhancing two-way flow of investments; and establishing closer counter-terrorism cooperation.
- Both sides had then expressed the desire to realize trade and business potentials.
- Turkey’s support for the UNSC reform as well as India’s bid for a UNSC seat reflects mutual concerns about global affairs.
- India and Turkey are driven by the desire to tap the possibilities for business, trade and investments.
- Moreover, the number of Indian tourists visiting Turkey is increasing significantly in the past decade.
- The popularity of the Indian entertainment industry and films in Turkey has witnessed a rise.

### **7.3 PM VISITS EUROPE**

#### **Why in news?**

Prime Minister is visiting Russia, France, Germany and Spain.

#### **What is the importance?**

- It provides an opportunity to recalibrate India’s approach to European geopolitics.
- The current uncertainty in the relations between America, China and Russia demands that India move closer to the European middle powers i.e France and Germany.
- Delhi must also devote more attention to countries like Spain, Sweden, Portugal, Poland etc.

#### **Why it is necessary to engage with Europe?**

- India’s long-standing faith in Russia as the most reliable international partner has been shaken by Moscow’s deepening alliance with Beijing and its political flirtation with Pakistan.
- With Beijing increasingly constraining India’s regional and global space, the fragility of the Delhi-Moscow bond has become exposed.
- PM needs to arrest the growing drift in relations with Russia and intensify the engagement with Europe.
- As Russia turns to China and vacates a key position in India’s strategic matrix, Delhi must begin to explore the European option.
- After Brexit, UK is in the verge of financial uncertainty.

- President Donald Trump's "America First" policies promise great uncertainty in Washington's engagement with Eurasia.
- Making matters worse are potential wild oscillations in US policy towards Russia and China.
- The Europeans fear that Trump might abandon them in favour of a deal with Russia at precisely the moment Moscow is viewed as a threat in European capitals.
- During his trip to Europe, PM can take the first steps towards the construction of a similar middle power coalition on the western edge of the Eurasian landmass.

## 7.4 INDIA-UK HOME AFFAIRS DIALOGUE

### *Why in news?*

India and Britain explores way to clear bottlenecks in the extradition process in the treaty inked in 1992. The matter was discussed during the first ever India-UK Home Affairs Dialogue.

### *What is the issue?*

- This dialogue took place just two days after the CBI and the ED sent their teams to the UK to expedite Vijay Mallya's extradition process.
- India so far has been able to extradite only one person in the last 25 years.
- The matter has gained urgency in the context of India seeking the extradition of business tycoon Vijay Mallya.

### *What are the lingering issues?*

- India has the death penalty while UK does not.
- In addition to death penalty the issue of prison facilities was also brought up.
- Both countries agreed to address the challenges of illegal migrant, overstaying Indians in UK subject to nationality verification.
- Regarding criminal data sharing and strengthening cooperation in tackling serious and organised crimes, both sides have agreed to strengthen further the bilateral cooperation and work towards formalizing the arrangements.
- India has raised the issue of visa-related difficulties faced by Indian students, skilled professional and dependents of Indian diplomats.
- Both sides emphasised cooperation on anti-terrorism mechanism and to strengthen mutual support to check cyber crimes.
- The issue of Khalistani militants based in the UK was brought out by India.
- Sharing of intelligence inputs on real-time basis, particularly with regard to IS, both from IS-held territories and modules being busted in the UK and Europe, were discussed.
- India told the British delegation that if one-on-one contact could be established between the prosecuting agency in India and the Crown Prosecution or Department of Prosecution, it would be quicker and easier to present evidence before the judge concerned.
- The Indian side said authorities here would inform the UK about court hearings in cases of criminals wanted by Britain living in India and wanted this to be reciprocated.

## 7.5 INDIA SOUTH KOREA - MINESWEEPER DEAL

### Why in news?

After repeated delays and negotiations, India and South Korea are set to finalize the deal for 12 minesweepers for the Indian Navy.

### Why the delay?

- The Kangnam Corporation (S.Korea) was shortlisted as the foreign original equipment manufacturer (OEM), but the final deal was still delayed due to **pricing and technology issues**.
- Discussions are underway between Goa Shipyard Limited (Indian yard for construction) and Kangnam Corporation.
- Commercial negotiations are in the final stages and should be concluded in the next two months.

### What is the deal?

- The Navy is presently left with four ageing minesweepers which will be retired by 2018 end.
- The deal for 12 minesweepers or **Mine Counter Measure Vessels (MCMV)** is worth about Rs 32,640 crore.
- Minesweepers are crucial to detect mines and explosives planted by the enemy targeting our ships as they enter or leave harbours as they **keep the seas mine free**.
- The ships would be **manufactured in India** under Transfer of Technology.
- The first ship is expected to be delivered three years after the contract is signed.

## 7.7 INDIA GERMANY - COOPERATION IN ALTERNATIVE MEDICINE

### Why in news?

The Union Cabinet in May, has approved the Joint Declaration of Intent (JDI) between Germany and India regarding cooperation in the sector of alternative medicine.

### What is the significance?

- The signing of the JDI will **enhance bilateral cooperation** between the two countries in the areas of traditional and alternative medicine.
- Initiation of collaborative research, training and scientific capacity building in the field of alternative medicine would contribute to the **enhanced employment opportunities** in the AYUSH sector.
- Also, there are no additional financial implications involved as the necessary financial resources will be met from the existing allocated budget of Ministry of AYUSH.
- The Ministry of AYUSH has already taken effective steps to propagate Indian systems of Medicine globally by entering into MoU with different countries.
- India has well-developed systems of traditional medicine which hold **tremendous potential in the global health scenario**.
- Germany has considerable interest in Traditional Systems of Medicine.

- One of the major initiatives is the collaborative research Project will be on **Osteoarthritis of the knee**.
- The results of the trial are encouraging and the clinical trial demonstrates significant improvement in patients.
- It is also expected that the JDI would give a boost to India-Germany ties and enhance cooperation between the two countries.

## 7.8 EMIGRATE PROGRAMME

### *Why in news?*

The United Arab Emirates has raised a red flag with the Ministry of External Affairs (MEA) over the government's flagship eMigrate programme over what it terms as "sovereignty issues."

### *What is eMigrate programme?*

- eMigrate project is a transformational initiative of the Overseas Employment Division (then a separate ministry) of MEA, to **automate the current emigration processes and eco-system**.
- After hundreds of complaints from workers about mistreatment, Overseas Affairs department had in 2015 set up a database initiative called the eMigrate programme.
- It gathers extensive information on emigrants as well as foreign employers, their companies and recruiting agents.
- It was undertaken with a vision to transform emigration into a simple, transparent, orderly and humane process.

### *What is the current issue?*

- India wants to build a databank to extract information about these companies in the UAE.
- UAE consider this a **breach of sovereignty**.
- The concerns also includes the programme's **mandate to inspect premises of UAE companies**, which it wants to be stopped immediately.
- Other Gulf countries, including Saudi Arabia, had also raised issues with the eMigrate system as soon as it was launched.

### *What is the effect on India?*

- According to World Bank study on emigrants and remittances worldwide 2017, while India retained the top position as a recipient of remittances, it saw the biggest year-on-year decline of 8.9% in 2016.
- In 2014 India received \$69.6 billion in remittances, which dipped to \$68.9 billion in 2015 and fell to \$62.7 billion last year.
- India's decision to enforce more protective measures for its labour force through the eMigrate programme in 2015 and a system of Minimum Referral Wages (MRW) in 2014 have made **Indian labour much more difficult to hire by foreign employers**.
- So, when other countries like Bangladesh, Pakistan, etc., don't put similar restrictions, recruiters find it easier to just go with them.

## 8. INTERNATIONAL ISSUES AND INSTITUTIONS

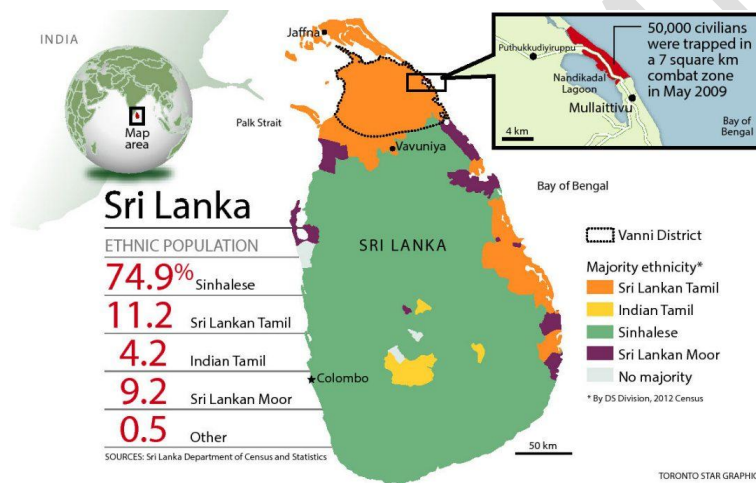
### 8.1 SRI LANKA'S HILL-COUNTRY TAMILS

#### Why in news?

Prime Minister Narendra Modi took a public rally with Sri Lanka's hill-country Tamils on his two-day visit to the country.

#### Who are hill-country Tamils?

- They are Tamil people of Indian origin in Sri Lanka.
- They are partly descended from workers sent from South India to Sri Lanka in the 19th and 20th centuries to work in coffee, tea and rubber plantations.
- The other group of Tamils called Sri Lankan Tamils descended from the Tamils of the old Jaffna kingdom and reside in the east coast.



#### What is their condition?

- Most estate schools lack teachers for mathematics and science, limiting higher education and employment choices for students.
- While Sri Lanka excels in public health delivery and indicators, services in plantation areas are woefully inadequate.
- The India-funded hospital is also short-staffed, overburdened and is struggling to serve the local community.
- Several decades of neglect by the plantation companies and the state, have pushed hill-country Tamils to the margins of society.
- It will take substantial political commitment from the government to deliver what is due to this community and bridge the gap between the hill country and the rest of the island.
- Their cabinet decided to provide seven perches of land to estate residents to address their landlessness.
- Acknowledging the estate sector as “most deprived”, the government unveiled an ambitious National Plan of Action for the Social Development of the Plantation Community (2016-2020).



### ***What is the significance of the visit?***

- PM's visit to the region is the first by an Indian Prime Minister.
- The visit was a strong affirmation of the community's economic and political significance.
- Hill-country leaders sought greater assistance in education.
- India also has offered to build 14,000 houses, a drop in the ocean of the nearly 1,60,000 homes the community needs.
- Indian assistance to a deprived region is certainly welcome but it can only supplement what Sri Lanka ought to deliver.

## **8.2 INDIA AND BRI**

### ***What is the issue?***

India did not attend the recently held Belt and Road Initiative (BRI) Forum in China.

### ***What is BRI?***

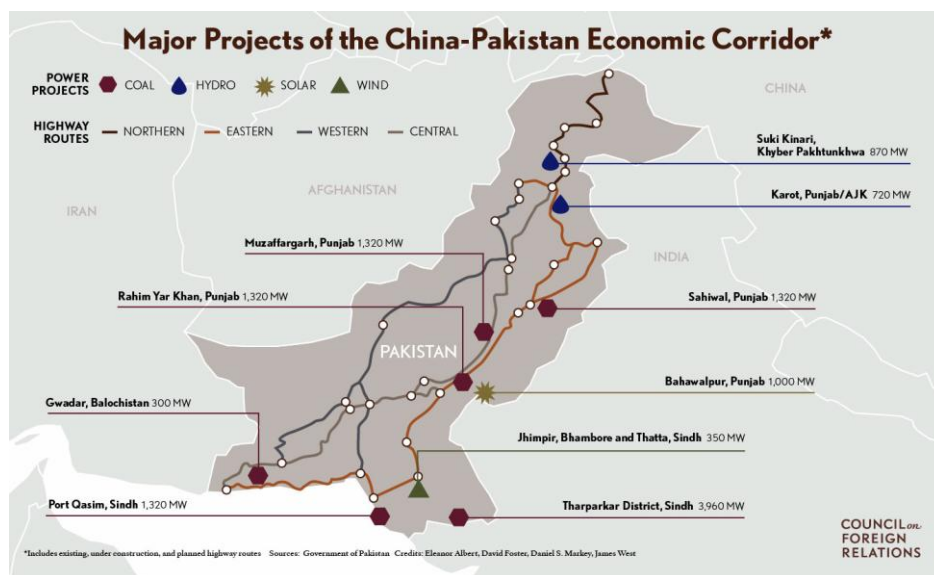
- One belt one road (OBOR) or Belt and road (BRI) is the new Silk Road initiative, both by land and sea, announced by Chinese President Xi Jinping in 2013.
- It's the **most ambitious infrastructure and connectivity project** in history, aiming to connect China with Europe by land and rail, and to Africa and Asia by sea.
- This Belt and Road Initiative (BRI) will eventually encompass 100 countries representing 70% of the world's population, 55% of GDP and 24% of global trade.

### ***What are the hurdles of BRI?***

- The BRI has a scope, in which not all is in Chinese hands, since it involves solving **security, diplomatic and sovereignty concerns**.
- Even simple things like land acquisition for roads and railways can be tricky.
- Ownership of the assets once they are created is also not clear.
- The belt and road pass through some of the **most volatile regions** in Central Asia, and success is not guaranteed.

### ***What is India's problem?***

- The China-Pakistan Economic Corridor (CPEC) this is \$50 billion Chinese investment will link Central Asia and China to the Indian Ocean through the deep sea port of Gwadar.
- But it is **being constructed in the disputed territory** (i.e. legally owned by India) of Pakistan-occupied Kashmir.
- India thinks this **affects its sovereignty**, and it plans to boycott of the May meeting.
- The State government of Jammu and Kashmir wondered why India is not joining CPEC as a partner to bring economic benefits to the region.
- This is clear that there are differing views even among government officials within a country.



### What are china's concerns?

- China is in occupation of a large part of Ladakh in the north-eastern part of J&K.
- To the west, Pakistan had ceded part of the territory controlled by it to Beijing after the Sino-Indian border conflict of 1962.
- China's first trans-border infrastructure project in Kashmir — the Karakoram Highway — dates back to the late 1960s. Since then, China's presence in Pak-occupied Kashmir has steadily grown.
- As the CPEC deepens the integration between Pakistan occupied Kashmir and China, Beijing looms larger than ever before over J&K.

### Does China alley India's concerns?

- In the last few days, Beijing seemed eager to address India's sovereignty concerns about CPEC.
- Delhi was not impressed though, for the pickings seemed meagre.
- Nevertheless, the effort by the two countries to address the tricky issue of territorial sovereignty in Kashmir is welcome and must continue.
- While it may be prepared to talk, Beijing is unlikely to suspend work on its economic and strategic projects in Pakistan occupied Kashmir.

### What India needs to do?

- India's response should be based on its long-term interest and not short-term concerns.
- CPEC issue can be isolated and addressed, without India rebuffing the whole of BRI.
- China has suggested starting negotiations on a '**China India Treaty of Good Neighbours and Friendly Cooperation**', restarting negotiations on the China-India Free Trade Agreement, striving for an early harvest serving India's interests.
- BRI already has contracts of over \$1 trillion and enlarging areas of cooperation, **India cannot be a \$10 trillion economy by 2032 without integrating itself with the growing Asian market** and its supply, manufacturing and market networks.
- The Sino-Indian argument on CPEC in Kashmir is deeply connected to the question of Arunachal Pradesh.

- While China asks India to downplay the sovereignty argument in Pakistan occupied Kashmir, Beijing objects to all Indian activity, political or economic, in Arunachal Pradesh.
- The state is part of the Indian Union, but is claimed in entirety by China.
- **In Arunachal, India needs to raise its game on accelerating the state's economic development and its connectivity to the rest of India.**
- India must devote high-level political attention to the long-neglected Andaman and Nicobar islands that sit across China's planned maritime silk routes in the eastern Indian Ocean.
- **It is in both countries' interests to bridge this gap, by**
  1. Increasing India's exporters' access to the China's market.
  2. Rapidly increasing capital inflows from China to India.

### 8.3 DIGITAL MINISTERS MEETING

#### *Why in news?*

Germany convened the first-ever G20 "digital ministers" meeting.

#### *What is the significance?*

- Cyber-attacks cost the global economy nearly \$450 billion.
- So the G20 digital ministers meeting is a step in the right direction to give this issue the political visibility it needs.
- It indicates how the future of connected societies and economies is now firmly at the top of the global agenda.
- The meeting resulted in the creation of a working group on the digital economy to articulate rules of operation for businesses, governments and users transacting on the Internet.
- The larger mandate of this working group is the creation of a strategy for securing the global digital economy.
- G20 should assess whether cybersecurity is a business objective or a means towards the larger goal of promoting digital access and financial inclusion.
- It should also articulate policies for the digital economy that can be emulated in developing countries outside the G20.
- A T20 task force comprising think tanks and academiawas constituted to offer recommendations that would strengthen digital economies and manage the "digitalization" of traditional sectors.
- G20-wide "digital skills upliftment strategy" that can improve labour participation and competitive capacities for women and marginalized communities.

#### *Why India should be concerned?*

- India is affected by the weaknesses in digital payments systems, global and domestic.
- It is tackling the twin challenge of Internet adoption and expansive digitalization.
- So it should contribute to the working group's findings, as its digital economy is qualitatively and quantitatively different from those of the advanced industrialized nations.

## 8.4 REGIONAL COMPREHENSIVE ECONOMIC PARTNERSHIP

### What is the issue?

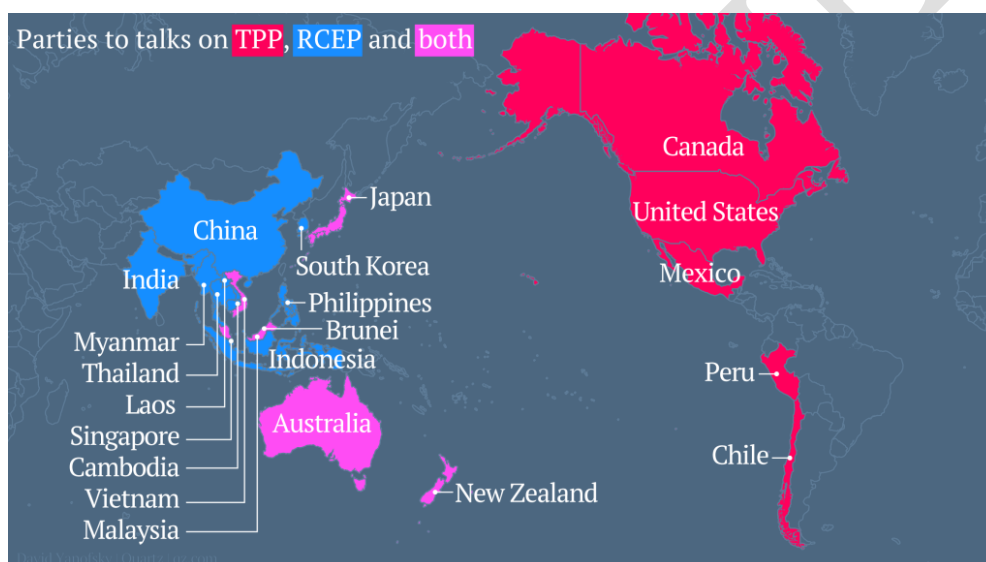
- There's a rush to finalise RCEP this year which is pushing India into covering most tariff lines that destroy its economy.

### What is RCEP?

- RCEP is being negotiated between **India and 15 other countries** including the 10-member Asean, Japan, South Korea, New Zealand, Australia and China.
- India had very rightly maintained a cautious approach in its FTAs on goods, intellectual property rights, and many new issues such as investment, government procurement and competition policy.

### Why RCEP is bad for India?

- There was clearly huge pressure on India to conclude negotiations this year and to make major concessions in goods, services and investment at the ministerial of the RCEP in Hanoi.



- It has the potential to overthrow India's policies of rural development and industrialisation especially 'Make in India', and the promise of the Prime Minister to provide accessible healthcare and medicines to all.
- Most important, it **threatens the policy flexibility and sovereignty** to pursue independent economic, social and environmental policies.
- **New Zealand's export-oriented dairy products will decimate India's growing dairy sector**, which is still largely small-scale.
- E-commerce commitments, if any, will allow companies such as Alibaba from China to displace Indian manufacturing especially in the SME segment.
- Further, India is being asked to eliminate export restrictions on minerals and raw material by Japan and South Korea, which may **threaten domestic raw material availability**.
- India has demands for both Mode 3 (investment) and Mode 4 (movement of people) with a proposal for a RCEP business visa for professionals.
- India's demand for Mode 4 is unlikely to be granted.

- What India hopes to gain in Mode 3 for its outward FDI is not clear as it is not competitive in most services except for IT and ITES.
- India is under heavy pressure to agree to the investor state dispute settlement provision in RCEP without the safeguards provided in the Model BIT.
- The investment chapter in RCEP is **also pitching for strong provisions on IPRs**.
- Agreeing to data exclusivity, extending patent terms and unduly strong enforcement measures will weaken the entire generic medicine sector and take away several health safeguards in India's Patent Act, notably section 3(d).
- This will make medicines inaccessible not only for Indian patients but for those in the entire developing world.
- India's earlier proposed to a three-tier tariff structure –
  - 80% tariff-free lines with ASEAN, essentially maintaining the FTA status quo;
  - 65% free lines for Japan and Korea; and
  - 42% free lines for China, Australia and New Zealand.
- Now at best-case scenario, it can get 74% free tariff lines with China to be arrived at over the next 15-20 years.
- Meanwhile, India's insistence on lower services investment and visa barriers for its professionals is not making headway.
- The problem here is tariffs within its other members are already remarkably low.
- e.g Japan and China deeply integrated into the ASEAN economy and with each other in terms of trade, investment and global supply chains.
- India remains an outsider in this club, with the exception of China, with which it runs a huge trade deficit.
- India accounts for just over 3% of ASEAN exports and below 2% of the latter's imports, whereas China accounts for over 11% of ASEAN exports and nearly 20% of its imports.
- China has displaced Japan and the US as ASEAN'S principal trading partner.
- The challenge is for India to break into this bloc at a time of growing protectionism in the West, without compromising its interests in agriculture, industry and intellectual property rights.

### **What should be done?**

- India must be clear about dovetailing tariff openness with its 'Make in India' programme.
- India can be flexible about opening up sectors such as legal services, entertainment and accountancy.
- In the long run, it should increase its skill and technology levels to match RCEP countries by investing in R&D and quality education.
- The key lies in driving growth through productivity and innovation, rather than low-cost labour alone.

## **8.5 INDIA AFRICA TRADE RELATIONS**

### **Why in news?**

PM Modi at the inauguration of annual meeting of African Development Bank spoke in detail about the ever increasing relations between India and Africa.

### ***How are the ties improving?***

- Africa-India trade has **multiplied in the last 15 years**, doubled in the last five years to reach nearly \$72 billion in 2014-15.
- India's commodity trade with Africa in 2015-16 was higher than our commodity trade with the United States of America.
- India's private sector is also at the forefront of driving this impetus.
- From 1996 to 2016, Africa accounted for nearly one-fifth of Indian overseas direct investments.
- India is the fifth-largest country investing in the continent, with investments over the past 20 years amounting to \$54 billion, creating jobs for Africans.
- African countries are also the partners of International Solar Alliance initiative, which was launched at the UN Climate Change Conference in Paris in November 2015.
- As a founder of the New Development Bank (NDB), popularly called the BRICS bank, India has consistently supported establishment of a regional centre in South Africa.
- This will provide a platform to promote collaboration between NDB and other development partners including the African Development Bank.
- India joined the African Development Fund in 1982 and the African Development Bank in 1983.
- India has contributed to all of the bank's general capital increases.

### ***What are the similarities between both India and Africa?***

- Both nations require uplifting our farmers and the poor, empowering women, ensuring rural communities have access to finance, building infrastructure.
- There is a necessity to maintain macroeconomic stability so that inflation is controlled and balance of payments is stable.

## **8.6 INTERNATIONAL COMPARISON PROGRAMME**

### ***Why in news?***

India is participating in the current phase of International Comparison Programme (ICP) with reference to 2017.

### ***What is International comparison programme?***

- ICP is a worldwide statistical initiative led by the World Bank under the sponsorships of the United Nations Statistical Commission.
- The main objective of providing comparable price and volume measures of gross domestic product (GDP) and its expenditure aggregates.
- It is a global statistical initiative that supports inter-country comparisons of Gross Domestic Product (GDP) and its components, using Purchasing Power Parity.
- Ministry of Statistics & Programme Implementation (MOSPI) will take up the price collection work in rural and urban areas.



### ***What is purchasing power parity?***

- PPPs measure the total amount of goods and services that a single unit of a country's currency can buy in another country.
- The PPP between countries A and B measures the number of units of country A's currency required to purchase a basket of goods or services in country A as compared to one unit of country B's currency to purchase a similar basket of goods in country B.
- PPPs can thus be used to convert the cost of a basket of goods and service into a common currency while eliminating price level differences across countries.

### ***What are the agencies responsible for economic data estimates?***

#### ***MOSPI***

- The Ministry of Statistics and Programme Implementation is an Indian government ministry concerned with coverage and quality aspects of statistics released.
- The surveys conducted by the Ministry are based on scientific sampling methods.
- It has two dedicated departments for statistics, they are NSSO and CSO
- It has taken a number of new initiatives to modernize the data collection, processing, storage, dissemination etc. in line with digital India program.

#### ***NSSO***

- National Sample Survey Office conducts nation-wide large-scale sample surveys to obtain comprehensive and continuing information relating to social, economic, demographic, industrial and agricultural aspects.
- It has been instrumental in developing a strong database that has helped the Central as well as State Governments in developmental planning and policy formulations.
- The results brought out by NSSO are used widely both by national & international entities in a variety of ways for planning, policy formulation, etc.

#### ***Central Statistics Office (CSO)***

- It is responsible for coordination of statistical activities in the country and for evolving and maintaining statistical standards.
- Its activities include compilation of National Accounts; conduct of Annual Survey of Industries and Economic Censuses, compilation of Index of Industrial Production, as well as Consumer Price Indices.
- It also deals with various social statistics, training, international cooperation, Industrial Classification etc.
- It is also conducting the Annual Survey of Industries (ASI), the principal source of industrial statistics in India every year.

### ***What are the innovations in data collections?***

- CSO is planning to develop a web-based data collection system for Index of Industrial Production (IIP),
- Data collection exercise has gone digital with conduct of quarterly Surveys using tablets.
- The project is expected to result in huge time savings and will track and upload employment data.
- The Ministry has established a wide area network dedicated to information on 'State Domestic Product'.
- The objective is to collect and present data pertaining to SDP from all 29 States and 7 Union Territories of India at one platform.
- This portal is being used by the Directorate of Economics & Statistics (DES) and M/o Statistics and Programme Implementation (MOSPI).

## **8.7 G20 SUMMIT**

### ***Why in news?***

The G7 summit was held on May 26–27 at Sicily, Italy.

### ***What is G7?***

- The Group of Seven (G7) is an informal bloc of industrialised democracies.
- Its current members make up nearly 50 percent of the world economy, and represent more than 60 percent of net global wealth.
- The Group of 7 (G7) is a group consisting of Canada, France, Germany, Italy, Japan, the United Kingdom and the United States. The European Union is also represented within the G7.
- A very high net national wealth and a very high Human Development Index are the main requirements to be a member of this group.
- The G7 takes no mandatory decisions, and the meeting is billed as an opportunity to allow leaders to exchange ideas in key issues.

### ***What is about the recent meeting?***

- Four out of seven leaders took part in the summit for the first time, which includes the leaders of US, Italy, UK and France.
- The discussions were on
  1. Climate change
  2. Trade related issues
  3. Issues which agreed in the last meeting
  4. Global security issues
  5. Refugee crisis

## GS PAPER III

### 9. ECONOMY

#### 9.1 JOBLESS GROWTH

##### *What is the issue?*

Chief Economic Adviser Arvind Subramanian recently pointed to the need to achieve higher economic growth, in the range of 8% to 10%, to solve the problem of jobless growth.

##### *What did the NITI Aayog says?*

- It is worth noting that India added just 1.35 lakh jobs in eight labour-intensive sectors in 2015, compared to the 9.3 lakh jobs that were created in 2011, according to Labour Bureau figures.
- The rate of unemployment grew steadily from 3.8% in 2011-12 to 5% in 2015-16.
- **NITI Aayog has dismissed concerns over jobless growth**, saying the real problem is underemployment rather than unemployment.
- Nevertheless, this month the government set up a high-level task force headed by NITI Aayog Vice-Chairman Arvind Panagariya to obtain reliable data on employment trends to aid policymaking.

##### *What is the relation between job and economic growth?*

- The focus on jobs is obviously vital. However, **higher economic growth alone will not solve the jobs problem.**
- Jobs can be created when growth comes from **the transition of labour from informal sectors** like agriculture to the more formal manufacturing and service sectors.
- Such extensive growth runs the risk of stagnation once the available stock of informal labour is exhausted — as some Southeast Asian countries found out the hard way in the late 1990s.
- On the other hand, growth can come about without any substantial job-creation in the formal sectors of the economy, but through improvements in productivity.

##### *What India should do?*

- India should aim at **growth that is driven both by improvements in productivity and modernisation of its labour force** — especially since better jobs are crucial to improving the lives of millions who are employed, indeed underemployed, in low-paying jobs in the farm sector.
- Ironically, achieving both those objectives will first **require labour reforms** — ones that can both boost labour mobility within the formal sector and bring down the barriers businesses face in hiring labour.
- But labour reforms alone won't work unless these are combined with **a step-up in government spending** on asset and job-creating areas such as infrastructure, which in turn inspires private investment
- Job-creation needs to be an essential axis along which economic and social policies are formulated.

#### 9.2 WIDENING TAX-NET

##### *What is the issue?*

The government has stated that its demonetisation move has helped it bring 9.1 million individuals under the tax net.

### ***Has the tax net increased?***

- This is a significant achievement as the increase is as much as 25% of the 37 million individuals, who had filed income-tax (I-T) returns in 2015-16.
- In addition, the government's search and survey actions in the wake of demonetisation have led to the detection of undisclosed income of Rs 23,144 crore.
- Already, the government has identified 1.8 million people, whose cash transactions did not appear to be in line with their tax profile.
- Almost a million such individuals have submitted their online responses without having to visit the income-tax offices, indicating how the whole exercise has been undertaken while using technology to reduce human interface and scope for corruption as well as harassment.
- Taken together with a 22% surge in e-filing of returns and a doubling of the daily allotment of Permanent Account Numbers or PAN to taxpayers to 200,000, it would appear that the country is witnessing a marked improvement in tax coverage and compliance with some tangible results in cleaning up the tax system.

### ***How Income tax machinery worked in the past?***

- The latest data on the number of individuals brought under the tax net in earlier years pertain to 2012-13, when that number was put at 4.8 million, compared to 3.6 million individuals brought under the tax net in 2011-12.
- Tax experts point out that the actual gain in the number of new persons under the tax net would be revealed when the relevant figures for three years till 2015-16 are available.
- Similarly, e-filing of tax returns has been on the rise, but its annual growth has understandably slowed down in the last couple of years — from 27% in 2015-16 to 22% in 2016-17.
- It must also be acknowledged that the government's record in cleaning up the system by giving taxpayers an opportunity to declare their undisclosed income by paying taxes on that at a slightly higher rate has not yielded much success.
- Two, such schemes were launched in the last one year.
- The first such scheme that ended last September led to the reporting of undisclosed income of only Rs 55,000 crore, on which the tax at the rate of 45% had to be paid in three instalments.
- The second scheme has yielded only Rs 4,600 crore, sending out a clear message that tax immunity schemes have failed to live up to their promise of unearthing unaccounted money.

### ***What the message says?***

- The message that comes out loud and clear from these efforts is that while a lot has been achieved in bringing more individuals under the tax net and making the process of compliance easier, the benefits from tax immunity schemes are clearly insignificant.
- This calls for continued focus on deeper tax reforms and greater use of digital technology to track transactions.

## **9.3 CHANGING THE FISCAL YEAR**

### ***What is the issue?***

Madhya Pradesh government has announced that it will implement the aligning of fiscal year (FY) with the calendar year by presenting its budget for 2018 in December 2017.

### **Who mooted this idea?**

- The finance ministry (FM) had mooted a change in the Financial Year in 2016.
- In July 2016, the FM constituted a committee led by the former chief economic adviser, **Shankar Acharya**, to examine the “desirability and feasibility” of changing the Financial Year.
- In December, after the committee submitted its report, the ministry denied an imminent change in the FY.

### **What are the justifications given?**

- Well before the Acharya Committee finalised its report, a discussion note put out by NITI Aayog — written by its member, Bibek Debroy, and Kishore Desai — had listed several reasons:
- The primary one being that it would arm the government with levers to effectively and adequately reorient the budget formulation exercise.
- Their point was that the April-March year prevented policymakers and the government from taking into account the monsoon situation — important because the Budget is an important tool to address socio-economic requirements, and the farm sector dominates the country’s socio-economic dynamics.
- They also pointed to the higher share of the farm sector in the output of some northern states. There was also a mention of global practices.
- **China, Brazil, France and Germany follow the calendar year;** in the United States, the federal government’s fiscal year runs from October 1 to September 30.
- Most top US and European firms have the calendar year as their business year.

### **What do the critics say?**

- The proposal had evoked mixed responses with the NITI Aayog supporting it and the industry body, ASSOCHAM, issuing a trenchant critique.
- The ASSOCHAM, had argued, changing the financial year will not only **mean a change in book-keeping**, but also in the entire infrastructure of accounting software, taxation systems, human resource practices involving huge costs for both big and small industries.
- The shift would cost hundreds of crores of rupees, the industry body had said.
- Aligning the FY with the calendar year would require the budget to be presented in October or November, about the time when sowing for Rabi crops — most importantly, wheat and mustard — begins.
- It defies logic as to how the finance minister will conduct this exercise with, at best, a sketchy idea of the harvest next year.
- **From an agricultural standpoint**, in fact, July-June would be the ideal financial year, as Kharif sowings peak in July with the arrival of the monsoon a month earlier.
- There is another, larger point — which is about whether the impact on a sector whose contribution to national income has declined to well below 20%, should be the driver for such a major change.

### **What is the way ahead?**

- Perhaps it would have been better to first adopt an **accrual-based system of accounting**, which better reflects the state of the government’s accounts.
- The Finance Commission had recommended this earlier — and a previous government had accepted it in principle and mandated the Government Accounting Standards Advisory Board to draw up a detailed roadmap.

- This would reflect more accurately the government's assets and liabilities, and provide a far more comprehensive and transparent picture of its 'balance sheet'.

## 9.4 FAILURE OF FRBM ACT

### *What is the issue?*

- India has a chronic fiscal problem; Economists have worked for 20 years on designing and enacting parliamentary law that would constrain Budgets.
- The need to find the institutional reforms that will push the deficit down by roughly 2.5% of GDP, on average, on a sustained and long term basis.

### **Background**

- The money Bill route makes evading fiscal responsibility as easy as enacting the Budget.
- In order to constrain Budgets, we have only two viable pathways:
  - Putting fiscal responsibility clauses into the Constitution and
  - Un-muzzling the bond market.
- We run a primary deficit in most years. In the last 15 years, our deficit is too large by 2.5 per cent of GDP on average.

### *What are the issues with the FRBM Act?*

- The FRBM Act did not deliver the desired results.
- When introducing the Finance Bill, it is easy to introduce amendments to the fiscal responsibility law, and thereby making it inefficient.
- The FRBM Act, 2003, originally required eliminating the revenue deficit by March 31, 2008.
- The Finance Act of 2004 amended the FRBM Act to shift the deadline to 2009. This was further changed in 2012, and then to 2015, and in 2015 to 2018.
- This is the root cause of how the FRBM Act, 2003, failed.

### *How it is in other countries?*

- The essence of fiscal responsibility legislation is that it must constrain the Budget process.
- In the US, we have seen government shutdowns when the Budget negotiation was not able to fit within the debt ceiling.
- In Germany, the 'Federal Debt Brake' is in the Constitution, and there would be a shutdown of government payments if it were violated.
- **In India, all the FRBM Act does is to induce a few lines in the Finance Bill.** The Finance Bill will then be forced to respect these constraints.

### *What are the measures to be taken?*

- This calls for a two-pronged effort of technical work.
  - Designing the **Indian Debt Brake**, which would amend the fiscal machinery embedded in the Constitution.
  - Explaining this to the larger public.



- In a well-functioning system, the bond market should be judging the sustainability of the borrowing of a government, and demanding higher interest rates when public finance is on an unsustainable path.
- This generates a healthy system where fiscal responsibility is rewarded by cheaper debt financing and vice versa.
- We lack this check-and-balance in India as the bond market has been muzzled.
- To solve this problem, we require the Public Debt Management Agency and bond market reforms.

## 9.5 CHANGES IN INDEX OF INDUSTRIAL PRODUCTION

### Why in news?

The government launched the updated series of data for the Index of Industrial Production (IIP) and Wholesale Price Index (WPI)-based inflation.

### What are IIP and WPI?

- **WPI** - It is a measure of the average change in the prices of commodities for bulk sale. WPI covers commodities falling under the three Major Groups namely Primary Articles, Fuel and Power and Manufactured products.
- The prices tracked are ex- factory price for manufactured products, mandi price for agricultural commodities and ex-mines prices for minerals.
- **IIP** - It details out the growth of various sectors in an economy such as mining, electricity and manufacturing.
- IIP is released by Central Statistical Organisation whereas WPI is released by Ministry of Commerce & Industry.

### What are the changes made?

- CSO **revises the base year** of the macroeconomic indicators as a regular exercise to capture structural changes in the economy and improve the quality and representativeness of the indices.
- The base year for IIP and WPI in the new series **has shifted to 2011-12**, against the earlier 2004-05.
- **IIP** - The total number of items in **IIP has increased to 809** as compared to 620 earlier.
- The **149 new items in IIP** include steroids and hormonal preparations, cement clinkers, medical/surgical accessories, pre-fabricated concrete blocks and refined palm oil.
- On the other hand, 124 items such as biaxially oriented polypropylene films, calculators, colour TV picture tubes, gutka have been deleted from the 2004-05 series.
- **The weight of manufacturing** in the new IIP has increased to 77.6% from 75.5%, while that of mining reduced to 14.1% from 14.3%, and electricity to 7.9% from 10.3%.
- **WPI** - In the new series of the WPI, the number of items covered has increased from **676 to 697**.
- **WPI will no longer incorporate indirect taxes.**
- Previously, the WPI was calculated on the basis of the base price plus excise duty minus any trade discount.
- The new formula removes the excise duty aspect.
- The **weight of manufactured items has decreased** to 64.2% in the WPI in the new series from 64.9% in old series, and fuel and power to 13.1% from 14.9%, while those of primary items rose to 22.6% from 20.1%.
- The two updated indices are based on reports of expert committees led by former Planning Commission Member **Saumitra Chaudhuri**.

### **What are the implications?**

- The changes effected by the government in the product basket are aimed at **capturing the economic data in a more comprehensive manner.**
- The ministry also said in a statement that in order to reflect the increasing significance of electricity generation from renewable sources, it has been decided to include the data in the new series.
- The new WPI has excluded indirect taxes from the wholesale price, which means they will be insulated from policy changes. **It is closer to the concept of a Producers Price Index.**
- The new series of data paint a much healthier picture of the Indian economy than the old series did.
- However, deeper analysis shows that woes in manufacturing persist.
- **According to the new series of IIP factory output grew by 2.7% in March.**
- But by the old series, factory output was lower at 2.5 % in March and had contracted by 1.2% in February.
- Likewise, the IIP annual growth in 2016-17 under the new series is 5% against 0.7% under the old series.
- Despite a sharp rise in fuel prices, WPI inflation under the new series eased to 3.85% in April from 5.3% in March.

## **9.6 FOREIGN INVESTMENT PROMOTION BOARD**

### **Why in news?**

Union Cabinet has approved the 'phasing out' of Foreign Investment Promotion Board (FIPB).

### **What is FIPB?**

- The FIPB was set up in the early 1990s as an inter-ministerial mechanism to vet investment proposals from abroad.
- Finance Minister promised in his 2017 Budget speech to abolish the FIPB.
- The Department of Industrial Policy and Promotion under the Commerce Ministry is now expected to formulate a standard operating procedure to process FDI applications in 11 sectors that are still not in the automatic FDI approval list.
- The department would have to be consulted by line ministries, which have been empowered to take 'independent' decisions on investments proposed in their domains.
- The government hopes that as a result red-tapism will shrink, ease of doing business will improve and investors will find India more attractive.

### **What are the shortcomings?**

- The decision is more of a symbolic gesture.
- Over 90% of investment flowing in already does not require an FIPB nod as it comes in through the automatic route.
- Even where FDI limits have been raised significantly, there are rules attached that officers need to interpret for each case.
- FIPB may have delayed clearances at times. Yet, it is not the FIPB but the complicated rules that have been responsible for a less enthusiastic response from foreign investors in some sectors.

- e.g For instance, global insurers can hold up to 49% ownership in Indian ventures but only if Indians retain management and control over these entities. This rule has inhibited deal-making.
- Despite allowing 100% FDI in food retail, rules prohibit foreign players from using a small fraction of their shelf space for non-food items.
- This, in a sector that can create millions of jobs and boost farm incomes.
- Archaic land acquisition and labour laws also continue to make it difficult for large factories to come up.
- The efficacy of this move will be determined by the ability of individual ministries to exercise 'discretionary' powers without fear, favour or the cover provided by a collective decision-making body.
- Bureaucrats are likely to remain cautious till the government carries out changes it has promised to the anti-corruption law to protect them from the wrath of auditors and investigative agencies for bona fide decisions taken in the line of duty.

## 9.7 NPA ORDINANCE

### *What is the issue?*

- Banking Regulation (Amendment) Ordinance has been promulgated. It is aimed at resolving the non-performing assets (NPA) crisis in the banking sector.
- It creates an illusion of state action, and does little by way of addressing the real concerns.

### *What are the problems with the ordinance?*

- Capital allocated for the banking sector in the 2017-18 Union budget, or as part of the mid-term capital infusion plan, falls short of what the banks collectively need.
- In **absence of additional capital**, the RBI's directions to the banks under the ordinance may impede the resolution process.
- The RBI may have no option but to direct the banks to extend lifelines to unviable companies to defer the problem to a future date.
- For the banks, resolving these cases requires the most capital.
- Given the lack of capital, banks could be given the regulatory cover under the ordinance to refinance these large corporate debtors.

### *What are the hurdles for RBI in handling NPA's?*

- **The tools available to RBI are limited.** If the RBI intervenes on a case-by-case basis, questions about conflict of interest, regulatory capacity and capability will arise.
- If RBI intervenes through general rules and conditions, this will be no different from the corporate debt restructuring (CDR) mechanism, the strategic debt restructuring (SDR) scheme, and the scheme for sustainable structuring of stressed assets (S4A) that have failed in the past to resolve the problem.
- Either way, the ordinance puts RBI's credibility and reputation as a micro-prudential regulator at stake.
- If the RBI is to now get directly involved in these loan restructuring decisions, or indirectly through committees reporting to it, this would put it in a difficult spot.

### ***What is the way forward?***

- Resolving a bank's NPAs requires resolving the entity to which money has been lent.
- By empowering the RBI to act, the government has taken away any incentive of the banks to act on their own.
- The ordinance was presumably brought about because banks on their own could not trigger IBC proceedings against the stressed companies for fear of investigation and prosecution, or due to lack of capital or because of challenges in negotiating with politically connected promoters.
- The ordinance gives banks the regulatory cover to take resolution-related decisions but it is not clear whether it also gives the required political cover.

## **9.8 IDBI BANK'S DEBT OBLIGATIONS**

### ***Why in news?***

ICRA and other rating agencies like CRISIL and Moody's recently downgraded the IDBI Bank's debt obligations.

### ***What does it mean?***

- A credit rating reflects the rating agency's opinion on the likelihood of timely payment of interest and principal on the debt obligation.
- A credit downgrade by a rating agency means that its confidence level in the company's debt repayment ability has decreased.
- Weak capital position and continued stress on profitability and asset quality have been cited as concerns.

### ***Why is it important?***

- Downgrades can offer insights into the underlying financial performance of the company.
- e.g The downgrade of IDBI Bank takes into account the bank's weak operating and financial performance during FY17.
- Downgrades and their reasons matter to various stakeholders including bond holders, stock investors and bank depositors. They serve as red flags and could be a call to action.
- For bond investors, the company's reduced capacity to meet its payment obligation is a concern.
- Retail investors have exposure to such bonds mostly through debt funds that invest in these bonds.
- Net asset value (NAV) is value per share of a mutual fund on a specific date or time.
- The NAV of debt funds moves with underlying bond prices. The bond prices reflect the ability of the company to service its interest and principal.
- If a company actually defaults on its interest or principal repayment, then the debt fund's portfolio, to that extent, is written off. This will impact the NAV of the debt fund.
- Downgrades also have implications for investors in the stock of company. Over the past month, the stock price of IDBI Bank has fell 21%.

## 9.9 STATUS OF GOLD MONETIZATION SCHEME

### *Why in news?*

- The government revealed that Gold monetization scheme has led to deposits worth only 6.4 tons of gold till date.
- This is less than 2% of the annual imports of the yellow metal in 2016.

### *What is the Gold monetization scheme?*

- This scheme was launched to curb India's massive gold imports, which contributes significantly to India's trade deficit.
- The scheme allows a bank's customers to deposit their idle gold holdings for a fixed period of time in return for an interest in the range of 2.25% to 2.50%, and redeem it on maturity either in the form of gold or its rupee-equivalent amount.

### *What is the significance of the scheme?*

- Indian households (and temples) collectively own 20,000 tonnes of gold, a figure that is equivalent to the combined amount of gold held by the central banks of the US, Euro area and China.
- The government hoped that its initiative will help monetize a significant chunk of such gold holdings, which would then be melted and sold/lent to jewellers (and other users of gold), to reduce India's dependence on imports.

### *What is the current status of the scheme?*

- The response to the scheme seems to have been extremely less, Gold imports still account for more than one-fourth of India's trade deficit
- India remains the largest net importer of gold despite China having surpassed India as the largest consumer

### *What are the setback factors of the scheme?*

- Not many people want to park their gold in bank for 2-3% interest.
- Lack of adequate information or understanding about the gold monetization scheme.
- Indians seem unwilling to part with their gold in return for interest, they do use it as collateral for loans.
- Nearly three-fourth of India's gold stock is held in the form of jewellery and carries a lot of sentimental value.
- Gender aspect of gold in the form of jewellery allows women some sort of control over ownership and inheritance.

### *What can be the solution?*

- From the reports it is clear that urban households spent more on gold than their rural counterparts, and when these urban people itself not aware of the scheme how the rural people will.
- Making more awareness about the scheme is a mandatory requirement.
- The three main motivations behind holding gold are security, prospects of capital gains and liquidity, thus the investors of the scheme need an instant liquidity
- Indian policymakers should succeed in finding and resolving the issues which made the scheme a failure.

## 9.10 INFRASTRUCTURE INVESTMENT TRUST FUND

### *Why in news?*

The initial public offering (IPO) for IRB InvIT, **India's first infrastructure investment trust fund** will open for subscription.

### *What are InvITs?*

- **InvITs are similar to mutual funds.**
- While mutual funds provide an opportunity to invest in equity stocks, an InvIT **allows one to invest in infrastructure projects** such as road and power.

### *How do InvITs work?*

- InvITs raise funds from a large number of investors and directly invest in infrastructure projects or through a special purpose vehicle.
- **Two types of InvITs** have been allowed: One, which invests in completed and revenue generation infrastructure projects; the other, which has the flexibility to invest in completed or under-construction projects.
- InvITs which invest in completed projects take the **route of public offer of its units**, while those investing in under construction projects take the **route of private placement of units**.
- Both forms are required to be listed on stock exchanges.

### *How do InvITs help the developer?*

- InvITs allow developers of infrastructure assets to monetise their assets by pooling multiple projects under a single entity (trust structure).
- For instance, IRB InvIT constitutes six special purpose vehicles consisting of toll-road assets aggregating to 3,645 lane kilometres of highways located across the states of Maharashtra, Gujarat, Rajasthan, Karnataka and Tamil Nadu.

### *What is the structure of InvITs?*

- InvITs are **registered as trusts with SEBI** and there are four parties – trustee, sponsors, investment manager and project manager.
- Sponsors are the firms which set up the InvITs.
- Investment managers manage assets and investments of InvITs and undertake activities of the InvIT.
- The project manager is responsible for executing the projects.
- The trustee oversees the role of InvIT, investment managers and project manager and ensures that all rules are complied with.

### *For which class of investors are InvITs suitable?*

- The minimum application size for InvIT units is **Rs. 10 lakh**.
- The main investors could be foreign institutional investors, insurance and pension funds and domestic institutional investors (like mutual funds, banks) and also super-rich individuals.



### **What do InvITs mean to investors?**

- According to SEBI rules, at least 90% of funds collected, after paying for expenses, taxes and repayment of external debt, should be **passed on to investors every six months.**
- Dividend income received by unit holders is tax exempt.
- Short-term capital gain on sale of units is taxed at 15%, while long-term capital gains are tax exempt.
- Interest distributed to unit holders is taxed.

### **What are the potential investment risks?**

- InvITs are listed on and are subjected to the **vagaries of the stock exchanges**, resulting in negative or lower returns than expected.
- An economic downturn or project delays may hit infrastructure projects and result in lower returns.
- As in mutual funds, investors in InvITs have no control over investments and exits being made by the trust.

## **9.11 CONCERNS WITH GSTN**

### **What is the issue?**

- Concerns over data security of GSTN, as **private players are stakeholders in it.**
- Another question is whether the Comptroller and Auditor General of India (CAG) can audit the GSTN.
- The CAG feels it has all the powers to do so; while the GSTN says it is best audited by a third party.

### **What is GST and GST Council?**

- **GST** is a comprehensive indirect tax on manufacture, sale and consumption of goods and services throughout India (Except state of Jammu and Kashmir), to replace taxes levied by the central and state governments.
- **GST Council** has been established as per Article 279A of the Constitution.
- It is joint forum of the Centre and the States to make recommendations on important issues related to GST. Union Finance Minister is Chairperson of the council.
- Besides, Union Minister of State (MoS) in-charge of Revenue of finance and Minister In-charge of taxation or finance or any other Minister nominated by each State Government are its Members.

### **What is GSTN?**

- GSTN is a not-for-profit company set up primarily **to provide IT infrastructure and services to the Centre and States, tax payers and other stakeholders** for implementing the GST.
- **Objective of GSTN:** To ensure that there is a strong IT infrastructure and service back bone, which enables capture, processing and exchange of information among the stakeholders, which would include tax payers, States and the Centre, Accounting Offices, banks and the RBI. Even before it could process the first invoice under the GST, GSTN is already hitting the headlines.

### **What is the problem with shareholding?**

- The Centre and States each hold 24.5% in GSTN.
- LIC Housing Finance holds 11%; while HDFC, HDFC Bank, ICICI Bank and NSE Strategic Investment Company hold 10% each.

- Questions are already being asked as to **what business private companies have with an organization mainly supporting the Government** in managing a large tax database.
- Principally, it centers on a **concern over data security**.
- The Government says the data would be confidential but right now it is nothing more than an assurance.

### **What about the audit of GSTN?**

- **Sections 139 and 143 of the Companies Act, 2013** categorically mention that the CAG can audit a company which is either owned or controlled by the state.
- Technically, the CAG can audit all receipts and expenditures of a body or an authority if it receives substantial grants and loans from the governments.
- In its startup phase, the GSTN has funded itself with grants from the Government as well as some bank borrowing.
- Once the GST is rolled out, GSTN has a revenue model in place and would not depend on the Government.
- On the contentious issue of tax data, the GSTN says it holds the data in fiduciary capacity and that the CAG can gather the data from the States and the Centre or the Central Board of Excise and Customs.
- The CAG's because past experience in terms of accuracy of tax data from State governments has not been good.

### **What is the way forward?**

- This impasse between CAG and GSTN on audit doesn't need much deliberation.
- The arithmetic accuracy of the books of account of the GSTN can be audited by any firm of accountants.
- Since the CAG mostly do proprietary audits, it is necessary that the tax data and infrastructure be audited by the government auditor.

## **9.12 GST AND ITS NEGATIVES**

### **Why in news?**

- In about a month, India's new indirect tax system will be rolled out which has been described as the biggest reform in indirect taxes.
- The origins of the GST go back almost two decades and are also found in the reports of the Kelkar Committee on Tax Reforms, written at the turn of this century.

### **What are its negatives?**

- First, with five slabs of 0%, 5%, 12%, 18%, 28% plus cess, GST have increased the chance of classification disputes, discretion and litigation.
- The high rates encourage tax evasion, distort decisions, and promote wasteful resources into tax avoidance.
- As the GST Task Force of the Thirteenth Finance Commission has said, multiple rate slabs exacerbate the problem of bracket creep and classification disputes.
- A rational tax system should have very few rates and low rates.
- Before the introduction of this GST, the service tax had just one rate that was 15%, applicable to all services.
- While now GST have multiple rates and the chances of disputes and legal battles have increased.
- Items consumed by the poor are taxed at low rates and luxury goods are taxed at higher rates.

- But this classification itself is problematic especially in a diverse, fast-evolving economy.
- For instance, perfumed hair oil may be a luxury item in Bihar but not in Tamil Nadu.
- It is far too complex to classify goods rigidly as those consumed by the poor and the rich distinctly.
- Multiple rates also increase cost and complexity.
- As the task force also pointed out, the cost of auditing the classification of exempt, low rate and high rate slabs across every stage of production, distribution and consumption is very high.
- Single or few rates are easy to comply with and involve much lower disputes.
- By keeping most of the goods consumed by the poor (as identified by their consumption basket) and having multiple rates, the hope is that inflation will be in check.
- But almost 60% of India's GDP is from services, and the rate is moving from 15 to higher, it is quite likely that inflation will inch up.
- This is especially evident in the financial, telecom, hospitality and trade services.
- Since the IT systems are not fully in place and refunds are not instantaneous, the benefit of tax credit to be given to many sectors will be delayed.
- This cost of delay and consequent cost of working capital too introduces an inflationary element.
- Potable alcohol, crude oil, natural gas, aviation fuel, diesel, petrol, electricity and real estate are currently out of GST, and States will levy their own taxes on these.
- Taxes paid on these will not be able to be offset against the GST.

### 9.13 SPECIAL PURPOSE VEHICLES

#### *Why in news?*

The present government has created several Special Purpose Vehicles (SPVs) to achieve specific goals in key policy areas.

#### *How successful are the SPVs?*

- The idea of SPVs is to create a hybrid of a government-controlled body along with the efficiency and agility of the private sector.
- There are many companies that are vested with specific tasks.
- e.g Energy Efficiency Services Ltd, Invest India Ltd, SECI, NSDC and the recently-formed Digital India Corporation etc.
- Going by the numbers, all have performed very well.
- **Invest India** -In Invest India the government owns 49% of it, so technically it is not a PSU.
- Its aim is not to make money for the shareholders, but to facilitate investments into India, hand-hold investors through the bureaucratic maze.
- In 18 months, the company has handled over 70,000 investor queries, brought in over \$62 billion of investment commitments, of which around \$ 4.5 billion have been made.

- Invest India has direct access to the PMO, which helps in cutting red-tape.
- **Energy Efficiency Services Ltd** - It is a for-profit company.
- It is expected to make money for its shareholders, who are four power sector PSUs – NTPC, PGCIL, PFC and REC.
- EESL's mandate is to pull out the energy inefficient electrical gadgets in use (such as incandescent bulbs) and replace them with energy efficient ones (such as LEDs).
- It is profitable through a model that lets the customer pay for the costlier replacements out of their savings in energy bills.
- But more than profits, its efforts have helped avoid 6 GW of peak time power, save 30 billion units of electricity, worth ₹ 12,000 crore, annually (so far).
- The secret of its success is functional independence.
- **Solar Energy Corporation of India** - The present administration converted SECI from a not-for-profit 'Section 25 company' into a 'Section 3 company' (in the new Companies Act) which is allowed to engage in commercial activity.
- That made SECI to actively float tenders for solar plants and of wind power capacity.
- In the last two years, SECI has been involved in over 5,000 MW of solar and wind capacity.
- In 2015-16, it made a post-tax profit of Rs. 20 crore.
- **National Skill Development Corporation** - NSDC is 51% owned by industry bodies.
- In spite of criticisms about the low hit-rate in placements it has trained 1.15 crore people in 7,000-odd training centres.
- The lesson is from all of the above is simple.
- They have delivered results by adopting an innovative management model and operational freedom.

## 9.14 STRATEGIC PARTNERSHIP MODEL

### *Why in news?*

The Defence Acquisition Council (DAC) approved the broad contours of the Strategic Partnership Model (SPM) in its meeting held on May 20, 2017 under the chairmanship of the Defence Minister.

### *What is strategic partnership?*

- One company would be selected for each area based on its competence.
- That company would then tie up with the foreign Original Equipment Manufacturer selected through the procurement process, to build the platform in India with significant technology transfer.

### *What is the policy about?*

- The policy is intended to **engage the Indian private sector in the manufacture of hi-tech defence equipment in India.**

- It is an establishment of long-term strategic partnerships with qualified Indian industry majors through a transparent and competitive process.
- The Indian industry partners would tie up with global OEMs(original equipment manufacturer) to seek technology transfers and manufacturing know-how to set up domestic manufacturing infrastructure and supply chain.

### ***What is action plan of SPM?***

- SPM will kick start the process by selecting strategic partners for four segments, namely, **fighter aircraft, submarines, armoured vehicles, and helicopters.**
- In a separate process, MoD will also select the foreign Original Equipment Manufacturers (OEM) who could supply a particular platform required by MoD with transfer of the requisite scope, range and depth of technology for its manufacture in India.
- The process of selecting the platform would have to follow the same procedure as laid down in the Defence Procurement Procedure, which, among other things, entails lengthy field trials.

### ***What are the problems with the model?***

- There are **procedural difficulties** with the make schemes in the defence sector.
- Price discovery is an important component of the scheme, MoD needs to build up capabilities in costing and cost based challenges.
- It is not clear whether it is these strategic partners who will tie up with the chosen OEMs and participate as prime vendors in the MoD tender.
- The presumption underlying the SPM is that the OEMs will be happy to transfer technology to Indian companies or Joint Ventures (JVs) with Foreign Direct Investment (FDI) up to 49%.
- But there is the sensitive **issue of Intellectual Property Rights (IPR)**, which is one of the reasons why foreign OEMs are generally reluctant to transfer technologies.
- It is doubtful if the adoption of SPM will lead to an acceleration of this process.
- Binding a strategic partner through a long-term legal covenant and its subsequent upgrade, which may spread over several decades would be quite a challenge.
- These problems have been faced even in the context of a few 'Make', which, incidentally, continue to be a work-in-progress.

### ***What is the way forward?***

- **Pervasive scrutiny** should ensure that no loose ends are left untied; at present the SPM looks like a closed-door club.
- Unless the scheme provides an entry route for new companies and MSME, the scheme may not be in tune with the competition law that aims to prevent practices that have an adverse effect on competition.
- There are several other issues which must be addressed before unveiling the scheme in its entirety. Some of these issues seem intractable from a distance.

## **9.15 REAL ESTATE ACT**

### ***Why in news?***

The much awaited Real Estate (Regulation & Development) Act is now in effect.

### What does the act say?

- The Ministry of Housing and Urban Poverty Alleviation recently sections of the act which set the ball rolling for States to formulate, within six months, rules and regulations as statutorily mandated.
- Since **land is a State subject** under the Constitution, even after the Centre enacts the legislation, **State governments will have to ratify them.**
- States will have to set up the **Real Estate Regulatory Authority's (RERA) and the Real Estate Appellate Tribunals** and have only a maximum of a year from the coming into effect of the Act to do so.
- The Act's preamble details the legislative intention which is to primarily protect the interests of consumers and bring in efficiency and transparency in the sale/purchase of real estate.
- The Act also attempts to establish an **adjudicatory mechanism** for the speedy redress of disputes.
- RERA and the Appellate Tribunal are expected to decide on complaints within an ambitious period of 60 days.
- As one of the largest job creators, the real estate sector contributes almost 6% towards the GDP.
- Mindful of this, the Act seeks to assist developers by giving the regulator powers to make recommendations to State governments to create a single window clearance for approvals in a time-bound manner.
- Key provisions of the Act include a requirement for developers to now register projects with RERA prior to any advertisement and sale.
- Developers are also expected to have all sanction plans approved and regulatory clearances in place prior to commencement of sale.
- Subsequent changes have to be approved by a majority of buyers and the regulator.
- The **Act again ambitiously stipulates an electronic system**, maintained on the website of RERA, where developers are expected to update on a quarterly basis the status of their projects, and submit regular audits and architectural reports.
- If there is non-compliance, RERA has the power to order up to three years imprisonment of the promoters of a project.
- Importantly, it requires developers to maintain separate escrow accounts in relation to each project and **deposit 70% of the collections in such an account** to ensure that funds collected are utilised only for the specific project.
- The Act also requires real estate brokers and agents to register themselves with the regulator.

### What are the concerns?

- While consumer interests have been protected, **developers find provisions of the Act to be exceptionally burdensome** on a sector already ailing from a paucity of funds alike.
- In fact, the 22 sections still to be notified relate to functions/duties of promoters, rights/duties of allottees, recovery of interest on penalties and other offences.
- It appears that the law makers have consciously delayed the notification of these provisions till such time as regulators, developers and buyers familiarise themselves with the new legislation.
- Added with it were **multiple regulatory challenges.**



- The builder lobby has been demanding “industry” status for the real estate sector as it would help in the availability of bank loans.
- Real estate companies say that most delays are because of the failure of authorities to grant approvals/sanctions on time.
- While the Act addresses some of this, it does not deal with the concerns of developers regarding force majeure (acts of god outside their control) which result in a shortage of labour or issues on account of there not being a central repository of land titles/deeds.

### *Are the concerns of developers legitimate?*

- Some of these concerns are legitimate but the real estate sector has become a sort of untamed horse galloping in all directions.
- The cracks emerging in their books are largely of their own making.
- Once 100% foreign direct investment was permitted in real estate, international money flooded the market.
- Builders/developers overstretched themselves and diverted funds while some began to cross-invest in non-core activities.
- In the race to announce the next “mega project” one came across, in many instances, **real estate companies embarking on projects without even consolidating land.**
- Despite a model set of rules, only a few States have notified their rules.
- The onus is now on States to formulate rules and establish the regulatory authorities on time.
- There shouldn't be just paper compliance, by designating an existing authority to take additional charge as the real estate regulator, as that would affect the timeliness prescribed under the Act.
- Finally, the new legislation is a welcome enactment. It will go a long way in assisting upstanding developers.
- More importantly, it will ease the burden on innocent home buyers who put their life's savings into a real estate investment in the hope of having a roof over their head but often find their dreams come tumbling down.

## **9.16 ISSUES WITH TAXING AGRICULTURE INCOME**

### *What is the issue?*

The recommendation of NITI Aayog to tax agriculture income stirred a distress among the farming community.

### *What is History of Taxing Agriculture income?*

- The issue of taxing agricultural income (and wealth) goes back to the 1960s.
- Seventh Schedule, entry 82 in the Union List mentions taxes other than agricultural income, while **Entry 46 in the State List mentions taxes on agricultural income.** Therefore, arguing that this is in the State List is valid.
- **Income Tax Act of 1860** (which introduced income tax in India) it taxed agricultural income till 1886.
- **Income tax act 1961** had provisions for taxing agricultural income.
- Agricultural Income Tax Acts are present in Bihar, Assam, Bengal, Orissa, Uttar Pradesh, Hyderabad, Travancore and Cochin and Madras and Old Mysore State.
- Therefore, states tax some kinds of agricultural income, such as plantations.

### **What is the need of taxing farming income?**

- Farm income has been recognized as one area where **money is channeled to avoid paying taxes.**
- Considerable amount of money that is channeled here to escape tax by diverting funds to agriculture on paper or showing property owned as farmland which may be used for a penthouse.
- This taxation is like any other economic activity, if individuals and companies can be taxed, so should farmers, provided they go beyond the exemption limit.

### **What are the Challenges in Agricultural taxation?**

- The idea is reasonable; **the issue is so political** that it will automatically ring in negative points for the implementer.
- Any such tax would be interpreted as affecting the lives of 600 million people and can be perceived to be a disaster during elections.
- If agriculture has to be taxed, it would be by the **State as our federal structure would not permit the Centre to do so.**
- The major problem is identifying the individuals given that many of them own small pieces of land or are landless laborers.
- **The majority of the farmers are classified as socially and economically deprived.**
- Deciding what is to be taxed whether the value of output or the net income earned by farmers, is tedious.
- If implemented, this tax will be finally passed on to the consumer who will then have to pay a higher price for the product.

### **What could be done?**

- The taxes collected by the Centre would however be assigned to the states. Most agricultural farmers would continue to remain out of the tax net. (95% of farmers would be below the threshold).
- There must be a **unified system of taxation across states.** Agricultural income taxation must be integrated with non-agricultural income taxation. Land revenue tax hasn't quite worked and must be replaced.
- If implemented this would be an indirect tax on commodities, like an excise or sales tax, which will get subsumed under GST. The income of the farmer will still be outside the ambit of income tax.
- In the case of large farmers thresholds for exemption can be decided for specific crops.
- If National Agricultural Market attains a reasonable density, then tracking persons who evades with large transactions becomes easier.

## **9.17 PRIVATIZATION OF AIR INDIA**

### **Why in news?**

Union civil aviation minister indicated that the government is looking at all options for the ailing national carrier, Air India, including possible disinvestment.

### **What is the present condition of Air India?**

- Air India had accumulated debt of more than Rs.50,000crore as of the end of the 2015-16 fiscal year.
- Flights are routinely delayed, the equipment is old and mouldering, and the service is poor.

- The airline has become a platform through which politicians and officials enjoy the perks of office.

### ***What are the advantages of privatization?***

- A privatized Air India will cease to be a drain on the exchequer.
- The theory of economic policy establishes that government intervention in the economy is warranted only in the event of market failure or of an overarching non-economic objective.
- Going beyond conventional tools of intervention, such as regulation, taxes and subsidies, nationalization and monopolization of an industry only makes sense in the rarest of cases.
- e.g Situations in which the private market cannot deliver, such as a case of catastrophic market failure.
- So logically the government should not be in the commercial airline business.
- It might support flights to commercially unviable areas, subsidies, etc, not nationalization.
- Competing with private airlines, Air India is not doing a good job of it.
- Its domestic market share dropped to about 13% as of March 2017.

### ***What should be done?***

- The best way to turn Air India into a great global airline would be to cut it loose from the clutches of the government.
- It can be done either by fully privatizing the airline or reducing the government's stake to a minority interest.
- e.g Following the privatization, British Airways rose to become the world's "favourite airline".
- The experience of other countries, from Kenya to Canada to Singapore shows how successful is privatization.
- Disinvestment of Air India would send absolutely the right message, that India is now a market economy.
- If that happens, we will know that the old era of central planning is, just maybe, genuinely behind us after all.

## **9.18 RAIL DEVELOPMENT AUTHORITY**

### ***Why in news?***

The decision to set up the Rail Development Authority of India recently is being seen as the most important action taken so far to bring about institutional change for reforms in the biggest departmental undertaking of the Government.

### ***What are the functions of the authority?***

- The authority will have five members, including a chairman, who will be identified by a search and selection committee headed by the cabinet secretary and three others, all from within the Government.
- Some of the **regulatory functions** listed are: pricing of services commensurate with costs, protection of consumer interests, ensuring competition, creating a positive environment for investment, and providing a framework for non-discriminatory open access to the dedicated freight corridor.
- Some of the **developmental functions** listed are: promote efficiency and economy and absorption of new technology, market development, benchmarking of services against international norms, and human resources development.

- The authority “**shall make recommendations** to the government for appropriate consideration/decision” pertaining to the above two functions.
- It will be **up to the railway minister of the day to accept** the authority’s advice or not.
- Among the power of the authority, the concept paper mentions “**dissemination of information**”. It will publish reports and investigations and, in particular, convey its decisions through publicly available documents.

#### **What changes needed in the proposed body?**

- It was then felt that if an independent regulator handed down a revision of fares and freight rates which the railways had no option but to accept, then that would take the political sting out of the decision.
- The proposed body fails to change this present scenario by **being another advisory body**.
- With the number of passengers using the railways stagnant in recent years and freight carried last year not even reaching the previous year’s level, market conditions are such that raising fares or freight rates at this juncture will drive away business even more.
- Thus the need of the hour for the railways is not the ability to raise prices (fare and freight rates) but **the ability to cut costs and canvas for fresh business**.
- This will come from the organisation being corporatized and made to function professionally.

#### **9.19 SEBI NOTIFIES NEW NORMS FOR GREEN BONDS**

##### **Why in news?**

Regulator SEBI has finalised norms for issuance and listing of green bonds.

##### **What is green bond?**

- A green bond is like any other debt instrument issued by an entity for raising funds from investors.
- However, what differentiates it from other bonds is that the proceeds are ear-marked for use towards financing green projects.
- As of now, there are no standard norms for green bonds.
- They can help enhance an issuer's reputation and attract a wider investor base, while benefiting the issuers in terms of better pricing of their bonds compared to a regular bond.

##### **What are the new guidelines?**

- Issuance and listing of green bonds will be governed by the SEBI regulations for debt securities.
- These norms would also provide for requirement of independent third party reviewer.
- However, this has been kept optional.
- The issuer will have to provide the details of systems and procedures to be employed for tracking the proceeds, the investments made and earmarked for eligible projects.
- The same would need to be verified by external auditors.

##### **What are the impacts?**

- It will help meet the huge financing requirements worth USD 2.5 trillion for climate change actions in India by 2030.

- It can fasten the process of meeting an ambitious target India has of building 175 gigawatt of renewable energy capacity by 2022.
- The new norms would also help the investors take informed investment decisions and bring in uniformity in the disclosure requirements.

## 10. AGRICULTURE

### 10.1 FREE MARKET IN AGRICULTURE

#### *What is the issue?*

- Farmers in some States are regretting their abundant yields this year as the prices of agricultural commodities have crashed.
- e.g Chilli farmers in Andhra Pradesh and Telangana, tomato growers in Karnataka, and toor dal cultivators in Maharashtra have witnessed prices fall by more than half in a matter of just weeks.
- High commodity prices last year caused farmers to respond by boosting production, which in turn led to the present price crash.

#### *How does market help in price stabilisation?*

- **In the consumer market**, commodity speculators usually dampen price fluctuations by managing supply according to consumer demand. e.g When the supply of grains is abundant, speculators do not flood the market with all their stock but instead hoard the grains and sell them later when supply turns scarce.
- Thus, even if farmers engage in mindless grain production, speculators usually save the day for consumers by preventing steep rises and falls in grain prices.
- **In the wholesale market**, speculators can save farmers from similar price fluctuations by paying a competitive price for their produce even when there is abundant supply.
- Grain traders, to return to our previous example, who want to hoard supply expecting higher grain prices in the future would be willing to pay a better price to farmers today.
- Farmers can also expect a more predictable price for their produce each season, reflecting stable consumer prices, thus preventing mindless cultivation.

#### *What is the situation in India?*

- Similar competition is missing from the Indian agricultural scene where the supply chain is broken.
- Red tapeism, including limits on stocking agricultural products, has prevented the growth of a robust market for commodity speculation.
- The result is lack of investment in infrastructure like cold storage.
- About 40% of agricultural produce in India is wasted because of it.
- This led to price fluctuations that have affected both the farmer and the consumer.
- Wholesale agricultural prices are also determined by trader cartels not by competitive bidding.
- This only boosts the profits of some privileged traders.
- Farmers receive only 20-25% of what the final consumer pays for his product.

- Thus, a free market in agriculture can be the best antidote to the crisis facing Indian farmers.

## 10.2 INDIA AND GM-MUSTARD

### *Why in news?*

- The genetic engineering appraisal committee (GEAC), India's biotechnology regulator has approved the environmental release and cultivation by farmers of DMH-11.

*It is a genetically modified (GM) hybrid mustard developed by scientists at Delhi University.*

### **What are genetically modified crops?**

- Genetically modified crops are plants used in agriculture, **the DNA of which has been modified** using genetic engineering techniques.
- The aim is to introduce a new trait to the plant which does not occur naturally in the species.
- In food crops include resistance to certain pests, diseases, or environmental conditions, and **improving the nutrient profile of the crop.**
- In non-food crops include production of pharmaceutical agents, biofuels, and other industrially useful goods, as well as for bioremediation.
- More than 10% of world's crop lands has been planted with GM crops.

### *What are the benefits of GM crops?*

- Better Pest and Disease Resistance.
- Greater tolerance of stress, such as drought, low temperatures or salt in the soil.
- High yield and faster growth, they can be cultivated and harvested in areas with shorter growing seasons.
- More nutritious, and tastier.
- May be possible produce medicines or even vaccines.
- Can be made resistant to specific herbicides.

### *What are the drawbacks with GM crops?*

- Can cause Unpredictable side effects.
- Can cause ecological damage.
- Lead to over use of herbicides.
- Not accessible to every poor farmers.
- Problem with Intellectual property rights.

### *What is the status of GM varieties in India?*

- The country has yet to approve commercial cultivation of a GM food crop.
- **BT Cotton:** BT cotton was first used in India in 2002.



- **The only genetically modified cash crop under commercial cultivation in India is cotton.**
- Now it's being grown by Indian farmers on some 11 million hectares.
- Only 1/3<sup>rd</sup> of the kapaas or raw un-ginned cotton harvested by farmers.
- Remaining 2/3<sup>rd</sup> comprises the seed that is crushed to extract oil.
- Cotton-seed oil is, indeed, India's second largest indigenously produced oil today after mustard.
- The de-oiled cake or meal remaining after oil extraction is, likewise, fed to milch animals.
- During its introduction it was found to be promising for many farmers but after few years it created distress among the farmers.
- It **failed to fulfil its promises** such as high yield, pestresistance, drought resistance.
- The **seed prices are determined by corporates** which is highly expensive for the farmers.
- Many hectares of the land has been spoiled by this seeds.
- **BT Brinjal:** The GEAC in 2007, recommended the commercial release of BtBrinjal.
- It was developed by Mahyco (Maharashtra Hybrid Seeds Company) in collaboration with the Dharward University of Agricultural sciences and the Tamil Nadu Agricultural University.
- BT brinjal was overturned in February 2010 by the then Environment Minister who assumed the role of regulator and ordered a suspension on the transgenic vegetable's cultivation.

#### ***What are the benefits of GM Mustard?***

- GEAC has recently given a green signal for taking a decision on commercialization.
- Indigenously developed seeds, the patent remains with government unlike with cotton it remains with corporates.
- India Plans for food fortification to achieve SDG, this will help to achieving its goal.
- Yields are expected to rise by up to 30 per cent.
- India imports 15 million tonnes (Mt) of edible oils worth almost \$11 billion annually, Mustard oil production from this variety of crop will save a lot on Foreign exchange exchequer.

#### ***What is the way forward?***

- Environment ministry is the final conclusive authority in this regard.
- If the Minister's consent is obtained, GM mustard would be the first transgenic food crop to be allowed for commercial cultivation in Indian fields and would be a gateway for several genetically-modified food crops in India.
- Many of the GM crops in world today are cultivated for animal feed, the effects of GM crops on Humans are yet undiscovered.
- It is to be noted that many Developed countries closed their doors for GM foods.
- The legal and regulatory status of GM foods varies by country, with some nations banning or restricting them, and others permitting them with widely differing degrees of regulation.

- GM varieties should be promoted in a responsible way, and lot of awareness need to be created among the stake holders.
- Other than bio-safety concerns, transgenic technology is necessary for India to be scientifically relevant as well as have better seeds to address threats from climate change.

### 10.3 FAIR AND REMUNERATIVE PRICE

#### *Why in news?*

The Centre's decided to increase the Fair and Remunerative Price (FRP) for sugarcane by 11% in the Fair and Remunerative Price (FRP) for sugarcane for the upcoming sugar season.

#### *What is FRP?*

- FRP is the minimum price that the sugar mills have to pay to farmers.
- It is supposed to signal to farmers the need to plant more or less cane for the coming year.

#### *What is the necessity to increase FRP?*

- The country's sugar output dropped to a seven-year low of 203 lakh tonnes (2016-17).
- So the domestic availability of sugar is expected to be low this year.
- It is this scenario the decision to hike the FRP appears to be an attempt to incentivise farmers to plant more cane for the upcoming season.

#### *What are the shortcomings of FRP?*

- Successive governments have been prompt to hike the FRP in deficit years.
- But they have subsequently shied away from slashing it in surplus years.
- e.g Between 2010-11 and 2017-18, despite excess production in most years, the FRP for cane has nearly doubled from ₹ 130/quintal to ₹ 255/quintal.
- Contrarily, they have been reluctant to allow higher cane prices to reflect in the end-product.
- Sugar prices in the same period have barely risen 30%, leading to a loss-making industry and unpaid cane dues.

#### *What should be done?*

- To resolve this issue, the Centre should implement long-overdue reforms and allow cane prices to be decided by a market-based formula that shares revenue between millers and farmers in a pre-decided proportion.
- This should be accompanied by dismantling reservations that force farmers to sell their output to a single mill.
- Allowing cane prices to respond to market forces is also critical to ensure that alternative food crops get equal priority when farmers make their sowing decisions.

### 10.4 FORTIFICATION OF FOOD

#### *Why in news?*

Government is planning to make good quality fortified foods widely available.

#### *What is the background?*

- WHO estimates that **deficiency of key micronutrients** such as iron, vitamin A and iodine together affects a 1/3<sup>rd</sup> of the world's population.
- A diversified diet that meets all nutritional requirements is difficult to provide, fortification of food is relied upon by many countries to prevent malnutrition.

### **How Malnutrition affects Indian population?**

- Since iron deficiency contributes to **20% of maternal deaths** and is associated with nearly half of all maternal deaths in India.
- Malnutrition extends to the children that women with anemia give birth to.
- They often have **low birth weight**, are pre-term, and suffer from **poor development and lower mental abilities**.
- Lack of essential nutrients in the diet makes growing children weak and make them under nourished.

### **What is Food fortification?**

- It is the **process of adding micronutrients** (essential trace elements and vitamins) to food.
- Food fortification is a **proven and effective strategy** to meet the nutritional needs of a large number of people across various sections of the society.
- The efficacy of the fortification standards introduced by the Food Safety and Standards Authority of India (FSSAI) will depend on enforcement.
- **Reduces the risk of death from infectious diseases.**
- Standards-based fortification can help advance overall health goals, starting with maternal health.
- Fortified foods can help fill the gaps, in need of speedy remedial nutrition. It prevents and eliminates the nutritional deficiencies.

### **What are the various efforts taken by India in this regard?**

- Milk cooperatives in Haryana, Punjab, Rajasthan, Assam and Maharashtra are fortifying their products.
- Targeting children, the Rajasthan, Madhya Pradesh, Haryana and Himachal Pradesh governments have begun using **fortified oil for their mid-day meal schemes**.
- West Bengal and Andaman and Nicobar Islands are now distributing fortified wheat flour through the public distribution system, and the Maharashtra government has started a pilot project.
- The FSSAI is also working with small local suppliers, for instance local flour grinding mills, to get them to add premixed micronutrients.

## **10.5 SVALBARD GLOBAL SEED VAULT**

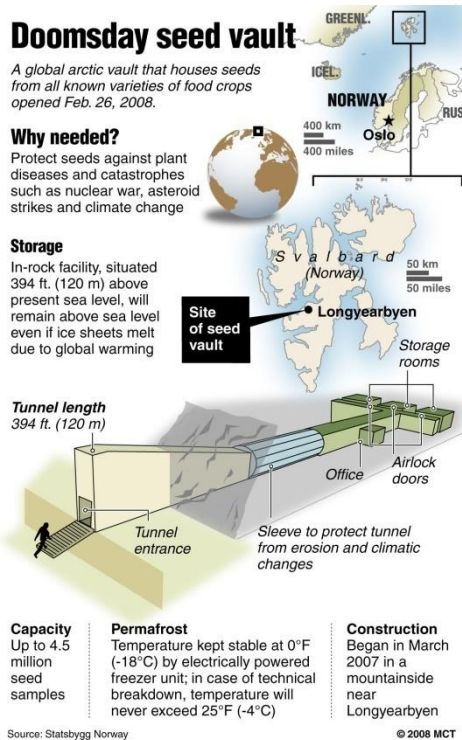
### **Why in news?**

Svalbard Global Seed Vault (SGSV) facility in Norway has recently faced a grave existential threat.

### **What is SGSV?**

- SGSV facility lies 360 feet inside of the 1,500-foot Platåberget mountain in Nordenskiöld Land on the island of Spitsbergen in Svalbard, Norway.
- It is a vault that contains humanity's ultimate food security.

- Millions of seeds of various crop varieties are locked in airtight boxes at minus 18 degrees Celsius.
- It is built to withstand manmade and natural disasters.
- It is theoretically protected against conventional bombs, and sits out of reach of rising sea levels.
- Norway's government owns the vault.
- Depositors retain ownership rights.
- India has sent around 9.5 crore seeds to Svalbard.



### What is the threat?

- Permafrost refers to the perennially frozen soil found in the Earth's higher latitudes.
- Technically, it is ground that remains at or below a temperature of 0°C for at least 2 consecutive years.
- The permafrost around the entrance of the vault melted, flooding the access tunnel with water.
- The thaw in the permafrost around the entrance of the facility is likely the result of consistently rising global temperatures.
- The builders of the SGSV announced that repairs were under way at the facility, and that water had reached no seeds

## 11. SCIENCE AND TECHNOLOGY

### 11.1 INDIA AND RNA TECHNOLOGIES

#### What is the issue?

Clustered regularly interspaced short palindromic repeats (**Crispr**) and its associated protein (**Cas9**) have been generating quite a buzz of late, even resulting in speculation about a new technology race between the US and China.

### **What is the significance?**

- Political and strategic implications apart, scientists all over the world are now able to **carry out gene editing at costs much lower** than ever before, and much more accurately.
- The enhanced tinkering with DNA can be used to achieve end goals as diverse as **enhancing crop quality and disease resistance, treating genetic diseases**, and even addressing the associated risk of **antibiotic resistance** through a Crispr pill that substitutes antibiotics.
- With the advances in nanotechnology and bioinformatics in place, India can be an attractive destination for a number of multinational pharma companies to either outsource some part of their research or buy the siRNA products or nano-carriers for RNA delivery from India.
- This polymeric molecule—essential for regulation and expression of genes—has already been the subject of research, in areas such as RNA interference (RNAi) and antisense technology.

### **What are RNAi& antisense technology?**

- **RNAi:** It is a gene silencing technology that inhibits protein synthesis in target cells using double-stranded RNA.
- RNAi has huge significance within the Indian context, considering the deep-seated resistance over the years to Bt cotton and other GM seeds.
- Recently, GM mustard received regulatory approval from the genetic engineering appraisal committee, only to get stalled later on account of a petition filed before the Supreme Court.
- So, **RNA-reliant solutions could be a viable alternative.**
- Also, RNAi technologies are now known to formulate drugs capable of reducing cholesterol levels by half.
- This technology also finds immense importance in treating acute viral infections like AIDS.
- **Antisense Technology:** It achieves the same result as RNAi, but only through single-stranded RNA.
- Antisense technology has shown promising results in **producing a variety of tomato with increased shelf-life** commonly known as **FlavrSavr**.
- The future could potentially be witness to the use of antisense technology to target cancer.

### **What are the constraints?**

- India faces two major challenges hindering progress in RNAi and antisense technologies.
- **Lack of efficient and targeted delivery vehicles:** While some Indian institutes have developed drug delivery vehicles capable of delivering proteins, much less has been done to develop vehicles capable of carrying silencing reagents such as **small interfering RNA (siRNA)**.
- Though this is one of the objectives of a stand-alone programme on nano-biotechnology, **there search gaps continue to exist.**
- **Minimal development of silencing reagents:** They ensure significant, specific, consistent and lasting knockdown of the target gene.
- The drug controller general of India (DCGI) has granted its nod to the first-ever clinical trial of siRNA therapy in India, in 2016.
- The number of such trials is negligible when compared to the total number of clinical trials in our country.

### **What could be done?**

- India, in order to deal with the first constraint, **needs to develop domestic facilities** focusing on nanotechnology-based targeted RNA-delivery product development.
- Nanotechnology being a multidisciplinary field must evoke cooperation and partnership among government ministries, research organizations, and private sector donors.
- At all levels of government, there must be **active collaboration with research institutions** in the US, Japan, and other early movers in this space, in terms of the training and development of human resources.
- Academic institutions and governmental agencies must organize nationwide seminars and symposiums to highlight the importance of nanotechnology in the fourth industrial revolution.
- In order to address the second challenge, India must **enhance its competence around bioinformatics**.
- Start-ups in the bioinformatics field must work on developing design algorithms for the development of safer, less toxic and more stable silencing reagents.
- Sustainable improvements in bioinformatics research would require an **increased number of trained scientists** becoming experts in the discipline.

## **11.2 SOUTH ASIA SATELLITE**

### **Why in news?**

India launched 'South Asia satellite' on May 5 2017. This sends a positive signal to the neighbourhood.

### **What are the facts about the satellite?**

- The South Asia Satellite (GSAT-9) is a geosynchronous communications and meteorology satellite by the Indian Space Research Organisation.
- It is launched for the South Asian Association for Regional Cooperation (SAARC) region.
- This idea was mooted by India in 18<sup>th</sup> SAARC summit.
- Afghanistan, Bangladesh, Bhutan, Nepal, Maldives and Sri Lanka are the users of the multi-dimensional facilities provided by the satellite.
- By launching the GSAT-9 'South Asia satellite', India has reaffirmed the Indian Space Research Organisation's scientific prowess, but the messaging is perhaps more geopolitical than geospatial.

### **What are the benefits of the launch?**

- The benefits the countries would receive in communication, telemedicine, meteorological forecasting and broadcasting.
- China is planning to launch a cloud for the countries in the south east region, but India wisely took the lead by launching the SAARC satellite.
- It is prove once again that India is the only country in South Asia that has independently launched satellites on indigenously developed launch vehicles.
- More than scientific endeavour, this geopolitically strengthens India's Strong neighbour's policy.

### **What is the hassle with Pakistan?**

- In recent years Pakistan and Sri Lanka have launched satellites with assistance from China.



- Pakistan denied the trade permission between Afghanistan and India via the land route, this created distress among the SAARC countries.
- Pakistan initially declared its intention of participating in the project, and offered India monetary and technical help.
- India rejected Pakistani offers, saying that it wanted the project to be a "gift" and multi-national collaboration would be time consuming.
- As a result, Pakistan declined to participate in the project.

### ***What is the way forward?***

- This the right move at right time by India as our neighbouring countries trying to seek china's help for space programs
- With the GSLV launch India is showing that where it is capable its commitment to the development of its neighbours is strong.
- Finally, by going ahead with the project despite Pakistan's decision to pull out, present Government is signalling that it will continue with its plans for the neighbourhood SAARC minus one' if necessary.
- It is clear from the launch that if our counterpart Pakistan fails to give Co-operation through land, we can connect with neighbouring countries through space.

## **11.3 NEW PRESSURISED HEAVY WATER REACTORS**

### ***Why in news?***

The Union Cabinet approved of a plan to build 10 new pressurised heavy water reactors of 700 MWe (mega watt electric).

### ***What is the scope of this proposal?***

- This proposal marks the biggest expansion of the country's nuclear power capacity from the existing 6,780 MWe generated by 22 plants, which accounts for just 3% of the electricity generated.
- It could generate orders worth Rs 70,000 crore, create more than 30,000 jobs.
- It boosts the "Make in India" programme by opening opportunities for indigenous engineering companies.
- According to the International Energy Agency's World Energy Outlook 2015, the country's power sector needs to almost quadruple by 2040 to keep pace with electricity demand.
- This proposal can deliver clean energy to meet India's growing demands.

### ***What are the issues?***

- **Cost** - Compared with solar power tariffs nuclear energy appears prohibitively expensive.
- This raised the question that why greater emphasis is not laid on meeting the challenging target for solar or wind power, which collectively account for 10 per cent of power generation
- **Imports** - Indian nuclear power plants are heavily dependent on uranium imports.
- Since 2008 India has emerged as one of the largest uranium importers.
- Owing to unstable uranium supply, nuclear power generation has fallen well short of target.

- This raises the question why India does not hasten the transition to thorium, the globally recognised alternate fuel to uranium.
- India has the world's largest thorium deposits and a quarter of global reserves.
- It appears, the Bhabha Atomic Research Centre is in the final stages of developing a thorium-based advanced heavy water reactor.
- It would be useful to accelerate this process, turning the Make in India agenda into a reality and reducing fuel costs sharply.

## 12. ENVIRONMENT

### 12.1 LEGAL RIGHTS TO GANGA AND YAMUNA

#### *Why in new?*

- On March 15<sup>th</sup> for the first time in the country, the **Uttarakhand High Court** has declared that the rivers **Ganga and Yamuna** were “**living persons.**”
- They were inspired by lawmakers in New Zealand. Barely a week earlier, had the New Zealand Parliament conferred legal personhood or human status to the Whanganui.

#### *What did the verdict say?*

- The Uttarakhand High Court **declared the rivers Yamuna and Ganga as legal or juridical persons**, enjoying all the rights, duties and liabilities of a living person.
- The Ganga and Yamuna, **all their tributaries, streams are declared** as juristic or legal persons or living entities having the status of a legal person with all corresponding rights, duties and liabilities of a living person **in order to preserve and conserve river Ganga and Yamuna.**
- The **two rivers thus have the right to be legally protected and not be harmed/destroyed.**
- The court ordered that the **Director of the NamamiGange programme**, the Uttarakhand Chief Secretary, and the Advocate-General of Uttarakhand would serve as “parents” for the rivers and would be the human faces to “protect, conserve and preserve” the rivers and their tributaries.

#### *What is the status of Ganga and its conservation?*

- Over 1500 million litres of **raw sewage is discharged into the Ganga every day.**
- This joins 500 million litres of industrial waste dumped by more than 700 highly polluting industries located along it.
- Rs 20,000 crore has been spent over five years on the NamamiGange Project. But the project that took off last year is an improvement on its predecessor in very few respects.
- There are programmes to develop interceptor drains, plant trees and improve the composition of river species.
- There are also plans to develop Ganga Grams villages where people will be educated in reducing pollution.
- Other than that, the project is a replica of the Ganga Action Plan in its emphasis on sewage treatment plants.

#### *What is the way forward?*

- Granting legal rights to the Whanganui took eight years of careful negotiation and intense public debate that was not without its moments of fun.
- New Zealanders joked if the river might now vote or be penalised for murder if a swimmer drowns.
- There is no such criticism in India; Legalese can only afford a small and plain expression to important characteristics of Ganga.
- In India, where the river is venerated and abused at the same time, the Uttarakhand court took an easy way out of the paradox.
- This verdict is very important, since it guides the government in protecting and preserving water.

## 12.2 SOLAR POWER TARIFFS

### *Why in news?*

The recent falling of solar power tariffs should be welcomed, but it remains to be seen whether producers can deliver at those rates on a sustainable basis.

### *What is the background of the issue?*

- Tariffs plunged to a new low of Rs2.44 per kilowatt-hour (kWh) last week during an auction for 500 megawatt (MW) capacity at Bhadla solar park in Rajasthan.
- Tariffs in the solar space have declined significantly over the years and have come down from levels in excess of Rs10 per kWh at the beginning of this decade to the present record lows.
- Along with this there is an increase in capacity addition which is likely to touch 8.8 gigawatt (GW) in 2017.
- This is an increase of 76% over 2016 which will make India the third biggest solar market in the world.

### *What are the reasons behind the fall in tariffs?*

- For one, the government has set an ambitious target of attaining 100 GW of solar power capacity by 2022.
- Consequently, the total installed capacity in this space has gone up by over three times in the last three years.
- According to government data, the share of renewable energy in the total installed capacity was 13% at the end of financial year 2016.
- Second, private sector participants want to be part of this big opportunity if it means lower returns on investments.
- Third, developments in the sector, such as the fall in price of solar panels and the availability of finance, are also helping.
- Solar power tariff has also been declining on account of sharply declining prices of solar panels, better structuring of the project that reduces risk for project developers and better currency hedging deals that make financing available at competitive cost.

### *What are the drawbacks in the fall?*

- The fall in tariffs may make adjustments difficult for conventional power producers like thermal.
- The rise in cheap supply from renewable sources would affect the demand from conventional power suppliers.
- A hit in revenue will hurt the ability of thermal power companies to repay loans, which would mean more trouble for the banking sector.

- The latest rates in the solar power space are among the lowest in the world; it remains to be seen if they can be sustained in the long run.
- It remains to be seen as to how low the solar power tariff can go and whether producers are actually able to deliver at that rate on a sustainable basis.

### 12.3 WRONG ASSESSMENT BY IUCN

#### *What is the issue?*

A team of Indian scientists in the U.S. has published a paper, suggesting that **10 bird species endemic to the Western Ghats face threat levels** that are higher than estimated by the IUCN.

#### *What did the scientists find?*

- **Geographic range is a key benchmark in assigning a species a threat level in IUCN's Red List.**
- These scientists independently assessed threat levels for 18 species and found that IUCN has overestimated the geographic range for 17 of those, including the 10 for which they have suggested an enhanced threat status.
- For birds, IUCN relies on range maps provided by **BirdLife International**, while the team's study relied on independently reviewed data from **eBird**, which he described as the world's largest citizen science database.
- The Indian scientists found that majority of the maps supplied to IUCN by Bird Life International (BLI) are **largely inaccurate and overestimated.**
- They also found that there are areas such as townships within these BLI range maps, where some of these birds definitely do not occur in.
- They mentioned that the geo-referenced locations of the occurrence of a bird provided by **eBird, a portal hosted by Cornell, are not necessarily error-free.**
- But this at least gives a better picture of where these birds are.
- Records uploaded to eBird are reviewed by eBird regional reviewers. However, BLI merely relies on expert evidence - which can lead to erroneous estimates.

SPECIES	EXISTING THREAT STATUS	PROPOSED REVISED	HABITAT OVERESTIMATED
Black and rufous flycatcher	Near threatened	Vulnerable	56%
Nilgiri pipit	Vulnerable	Endangered	88%
Broad-tailed grassbird	Vulnerable	Vulnerable	58%
Grey-headed bulbul	Near threatened	Near threatened	70%
Kerala laughingthrush	Near threatened	Endangered	- 63%
Nilgiri flycatcher	Near threatened	Vulnerable	63%
Grey-fronted green pigeon	Least concern	Near threatened	78%
Black-chinned laughingthrush	Endangered	Endangered	45%
Nilgiri shortwing	Endangered	Endangered	10%
White-bellied shortwing	Endangered	Endangered	20%
Wynaad laughingthrush	Least concern	Near threatened	84%
White-bellied treepie	Least concern	Near threatened	78%
White-bellied blue flycatcher	Least concern	Least concern	1%
Rufous babbler	Least concern	Near threatened	80%
Nilgiri wood pigeon	Vulnerable	Vulnerable	68%
Malabar parakeet	Least concern	Near threatened	69%
Malabar grey hornbill	Least concern	Near threatened	81%
Crimson-backed sunbird	Least concern	Least concern	26%

## IUCN

- IUCN, created in 1948, is a transnational membership union of government and civil society organisations.
- It is the world's largest and most diverse environmental network, backed by 1,300 member organisations and 16,000 experts.
- It describes itself as the “global authority on the status of the natural world and the measures needed to safeguard it”.

## 12.4 KEN BETWA LINK PROJECT (KBLP)

### Why in news?

- Of the three gatekeepers in the Environment Ministry, the National Board for Wildlife (NBWL) and the Expert Appraisal Committee (EAC) recommended the Ken-Betwa Link Project (KBLP) for clearance in 2016.
- Now with a favourable report tabled at a meeting of the Forest Advisory Committee (FAC) last week, the stage is set for statutory green nods for the project.

### What is the recent issue?

- And yet, the validity of such clearances, if issued at this stage, may not stand legal scrutiny.
- That is because the recommendations of the NBWL and the EAC, in fact, call for a fresh project report, which, in turn, will require a fresh assessment of its potential impact.
- On August 23, 2016, the NBWL cleared the KBLP following an assurance that “all the power generating facilities **shall be established outside the TR (Panna Tiger Reserve)** and the operations shall have minimal disturbance on the TR (tiger reserve)”.
- Since the present KBLP layout has the power station inside the tiger reserve, this requires chalking up a fresh project plan and getting its potential impact assessed for environmental concerns.



- Any clearance issued before this process is complete may not be legally tenable.
- The Central Empowered Committee (CEC) of the Supreme Court is already looking into the wildlife clearance recommended for the KBLP.

### ***What are the concerns raised by Forest Appraisal Committee?***

- FAC recommended that the project canal should be realigned to minimise the use of forestland.
- It also concluded that the Benefit/Cost (BC) ratio did not pay “attention to eco system services lost due to diversion of unique riverine eco system”.
- It recommended “a detailed study and fresh analyses by reputed institutions to take future action and modification if required”.
- The 8-member committee’s report tabled at the FAC meeting last week acknowledged “the fact there isn’t enough water in the Ken basin to warrant a dam of this height and that there is no point in clearing of the forest area”.

### ***What are the concerns about KBLP?***

- While the KBLP is being aggressively pushed as a **solution for parched Bundelkhand**, the project is meant to actually divert water from the area.
- According to the National Water Development Agency (NWDA), the KBLP “envisages diversion of surplus waters of Ken basin to water deficit Betwa basin”.
- In the upper reaches of the basin, the NWDA went on to elaborate, “an area of 1.27 lakh ha [hectares] in the Raisen and Vidisha districts of Madhya Pradesh will be benefitted by utilising water annually from this link by way of substitution.”
- Along the way to Raisen and Vidisha, the link will also provide for Bundelkhand, but only small lands to be irrigated according to the NWDA, in “the districts of Tikamgarh and Chhatarpur of MP and Mahoba and Jhansi of Uttar Pradesh”.
- Thus the promise of irrigating the Bundelkhand region by this KBLP is a false notion.

## **12.5 IMPORTANCE OF U.S. IN PARIS AGREEMENT**

### ***What is the importance of NDCs?***

- For about 3/4<sup>th</sup> of the 165 listed Nationally Determined Contributions (NDCs), implementation of pledges is conditional upon assistance on the finance and technology fronts.
- These countries depend on help from industrialised economies to build capacity for implementation.
- Even if all the NDCs were implemented, estimates show that the planet would warm up by about 3°C from pre-industrial temperatures i.e well above the goal of staying below a 1.5°C or a 2°C rise.
- Therefore all the NDCs should to be implemented, and the support required should be provided.
- Upfront capital investments are crucial for sustainable futures, and without them poorer countries have few options.

### ***What is GCF?***

- The Green Climate Fund (GCF) is an international mechanism set up at the Conference of the Parties-16 (COP-16) in Cancun in 2010.



- As per the international agreement, advanced economies should provide an annual assistance of \$100 billion, through public and private sources, by 2020 — the deadline is now extended to 2025.
- The fund currently has pledges worth \$10 billion from various developed countries.
- Least developed countries, small island states and African countries, which are all very vulnerable to the effects of warming and have contributed little to the GHGs, ought to receive the first priority.
- The GCF has the ability to bear risks, support innovation and leverage its own funds for further support, therefore making it a vital agency for poor countries.

### ***What is U.S.' recent move?***

- U.S. pledge is only \$9.41 in per capita terms — many times lower than that of several European countries.
- In January, former U.S. President Barack Obama transferred \$500 million to the GCF.
- This was the second payment towards the fulfilment of a \$3 billion pledge made in 2014.
- Recent policy actions by U.S. President Donald Trump indicate that the U.S. may not be able meet its own NDC targets.
- This by itself is a threat to keeping global warming within safe levels.
- These recent transfers neither fulfil the U.S. pledge nor its obligations as the largest cumulative emitter of GHGs.
- U.S. is also not likely to fulfil its obligation to provide support for the implementation of NDCs by other countries.
- Therefore, not just the U.S., but other countries too may fail without the means to implement their proposals.

### ***What should be done?***

- When the world calls for funding for the GCF, it only asks these nations to deal with problems they have caused.
- It is not the responsibility of a poor fisherman in Bangladesh or a woman in Sub-Saharan Africa or an islander who loses her house to storms in the Pacific to bear the burden of emissions from rich countries.
- The fact that all countries have responsibilities has been recognised in the Paris Agreement.
- But the rich countries, especially the U.S. and European nations, have to do their fair greater share for the world to set along a new path towards zero emissions.

## **12.6 CHENCHUS OF NALLAMALA**

### ***Why in news?***

- Chenchus tribe have always been caught at the cross fire between Maoists and the anti naxal forces of Andhra Pradesh police.
- The recent order National tiger conservation authority has put them yet again in an uncertain phase.

### ***Who are they?***

- For Chenchus Nallamala forest is their home.

- Every day they enter the deep forest of Nallamala found along the Eastern Ghats in search of leaves, tubers, roots, soapberries, honey and gum.
- The Devadari Kura (Cedrus deodara or native cedar) plant which is believed to ward off liver, urinary and respiratory infections and gastric ulcers is there source of food.
- The Telugu-speaking food gatherers and hunters of the Nallamala hill range will have a brunch which is a cocktail of curries made of leaves and fruits, mainly custard apple and gardenia which are found in plenty here.
- There are armed with axe and bow for their self defence and mostly accompanied by their pet dogs.
- Their goddess is Malamma Vana Devatha (the goddess of honey).
- They brew their own liquor “Thummachakka” with acacia bark, mahua flower and jaggery, which is consumed after a hunt.
- They are among the oldest living aboriginals of south India.

### **What is the current problem?**

- Chenchus who live deep in the forest of Nallamala (tropical dry deciduous scrub with trees of axle wood, teak, Hardwicke) is also host to India’s largest tiger reserve, the 3,728-sq.-km Nagarjunasagar Srisailem Tiger Reserve (NSTR).
- The recent order of NTCA means Chenchus will no longer be able to claim Nallamala as their home.
- The fact that Chenchus enjoy a symbiotic relationship with the Nallamala was recognised early by the British.
- The British gave them rights not just to stay inside the forest but also do subsistence farming and grazing.
- The order has come at a time when the Chenchus thought the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 commonly called the Forest Rights Act or FRA had come as a huge relief providing them the forest land rights they deserved.
- Chenchus in fact protect the tiger population inside the tiger reserve from poachers.
- There was not a single case, reporting the death of tiger due to this primitive tribe.
- 200 Chenchus are placed as tiger protection watchers all round the year and 200 more as forest fire watchers for six months inside NSTR.
- Neither do they have the skills to cope in the plains nor can they return to the forest due to recent orders.
- The rehabilitation plan by government will only rob of their century old livelihood and their relationship with the forest.

## **12.7 CHITALE COMMITTEE ON DE-SILTATION OF GANGA**

### **Why in news?**

- Madhav Chitale committee on Desiltation of Ganga has recommended study of sediment transport processes along with establishing annual sediment budgets to guide de-silting activities.

- The committee was asked to establish difference between desilting and sand mining and also to establish need for desilting for ecology and e-flow of the river Ganga.

### **What is desiltation?**

- Silts are earthy matter, fine sand, or the like carried by moving or running water and deposited as a sediment, removal such silts for the proper flow of river is known as desilting.
- The basic reasons given for necessity of desilting are **increasing the storage capacity and checking eutrophic conditions**.
- What is done in the name of de-silting is practically digging or excavation of lake bed.
- Increasing storage capacity by digging lake bed is the most costly proposal when compared to other alternatives.
- Desilting, if not done in a planned way, **creates isolated pits of considerable size** in the submergence area which may have lower bottom levels than the main storage.
- Thus, desilting said to be carried out for increasing storage capacity, practically reduces the actual utilizable storage in most of the cases.

### **What are the key findings of the report?**

- The committee in its report says erosion, sediment transport and siltation are very complex phenomena.
- It is **impossible to apply a one-size-fits-all approach** to sediment management and control, because the issues involved are frequently very regionally-specific.
- Local factors such as topography, river control structures, soil and water conservation measures, tree cover, and riparian land-use or land disturbance can have a large impact on sediment loads in rivers.
- River control structures (such as reservoirs), soil conservation measures and sediment control programmes can cause downstream sediment loads to decrease, while factors such as land disturbance or agricultural practices can cause increased sediment loads.

### **What are the points to be followed during desiltation?**

- It is necessary to **provide the river sufficient areas of flood plain** and lakes along the river to moderate the flood level.
- De-silting of the confluence points, especially with huge silt carrying tributaries, such as Ghagra, Sone, etc., may be necessary to make confluence hydraulically efficient.
- A **quantitative long term forecast** with decision support system to be established for optimum reservoir operations.
- **River morphological studies** should be carried out to initiate in-stream channel improvement works.
- Any bridges across River Ganga which are causing large afflux (more than 1% of normal depth) should be modified to reduce the afflux, which in turn will also reduce the sediment deposition and erosion of banks on the upstream.
- Restrictions presented in the Report need to be enforced before planning and executing any dredging/de-silting/mining activities.

### ***What is the way forward?***

- Instead of desilting, the long term solution is to **treat the catchment area** so that silt load in the incoming flow is permanently reduced.
- This can be done by **contour bunding, check dams, massive plantation, etc.** which will be less costly and will have far reaching positive effects of permanent nature.
- When used in farms and gardens, silt acts as a natural manure and increases water holding capacity of the soil.
- It is also an essential ingredient of the soil mix used for making bricks, tiles, etc.
- Instead of spending money on desilting, the government could **charge royalty for the silt used** by beneficiaries considering it as a mineral. This will generate funds for regular maintenance of lakes.

## **12.8 BACTERIAL POLLUTION**

### ***Why in news?***

European study finds, the pharmacy industry in Hyderabad is polluting the environment with antimicrobials.

### ***What are the key findings of the study?***

- The pollution contributes to a rise in drug-resistant infections, a new study published in the journal Infection alleges.
- Drug resistance in India is the sheer number of neonatal deaths attributed to it, an estimated 58,000 every year, followed by hospital-acquired infections that fail to respond to last-resort treatment.
- The crisis of drug resistance is exemplified by the spread of drug-resistant tuberculosis in India and the disease could spread to the international community.
- More significantly, the study claims that all samples contained antimicrobials in concentrations far exceeding maximum permissible environmental concentrations of these drugs.
- For long now low-level exposure to antimicrobial drugs in the environment has been feared for inducing resistance.
- While industrial units can claim there is no chemical discharge, the water bodies continue to receive inflows clearly loaded with chemicals, this is miserable here.
- Now it's clear that not only water bodies are getting polluted, the bacteria are also getting polluted.
- If this tends to continue microorganisms will evolve into drug resistive and spread across the nation which will be a global threat.

### ***What is the reaction of the Industry?***

- Drug manufacturers in Hyderabad maintain that it does not sufficiently link antibiotic resistance to pharma effluents.
- University of Hyderabad (UoH) scientists have carried out a study that shows multidrug-resistant bacteria can also be found in areas where no pharma units exist.

- As it looked only for bacteria, the UoH study could not respond to specific allegations made by the Infection study of drug residues in high concentrations around specific pharma units.
- It is important, that government should take needful action for prevention, rather than seeking complex methods for cure.

## 12.9 RIGHT BALANCE OF HYDRO POWER

### *What is the issue?*

The 'World Conference on Environment-2017', held in New Delhi.

### *What is the status of HEP in India?*

- It is stated that 16 of the 43 hydropower projects **currently under construction** are stalled for various reasons.
- The CAG, in its report tabled in March 2017, found that the standard procedures including for environmental impact assessments and public hearings have been bypassed.
- Tapping hydropower is considered a key priority area in view of India's growing energy requirement.
- It is noteworthy that **India became a net exporter of electricity** for the first time between April 2016 and February 2017, exporting around 5,585 million units to Nepal, Bangladesh and Myanmar.
- However, every stakeholder needs to contemplate the impact that hydropower dams would have on the environment, and also the potential impact of climate change on dams.

### *What are the disadvantages?*

- Though hydropower is a clean source of energy, yet it can have a serious negative impact on the climate.
- Significant amounts of carbon dioxide, nitrous oxide and methane are emitted from reservoirs, turbines and spillways.
- Methane alone accounts for 104 million metric tonnes of all these emissions annually.
- Mostly, methane is generated by the decomposition of vegetation and soil submerged by the reservoirs.
- It also found that hydropower dams located in tropical regions generate more methane than those located in temperate zones.
- Water is constantly replenished by a process of hydrological cycle in the atmosphere, but this cycle could get altered due to climate change.
- Floods, droughts, changes in temperature, precipitation and melting glaciers are all symptoms of climate change.
- Since the amount of electricity a hydropower plant can produce directly depends on the availability of water resources, lower the river discharge, lesser the power generation.
- A 1% reduction in the flow can reduce electricity output by roughly 3%.
- Moreover, one cannot ignore **the economic risks** of investing in a hydropower project under the prevailing conditions of climate change.

### ***What should be done?***

- The social impact of large dams by way of population displacement and loss of income from farming and livestock should also not be overlooked.
- While hydropower projects are critical for economic growth and development, **it is equally important to fully assess its potential social and environmental impact in the long-term.**

## **13. INTERNAL SECURITY**

### **13.1 PERSISTING DANGERS OF MAOISTS**

#### ***What is the issue?***

Described by Ex-PM Dr. Manmohan Singh as “India’s biggest internal security threat”, the recent attack by the Maoists is a sign of their waning strength, although perhaps not the flicker of a dying flame.

#### ***What is the course of action taken by the government?***

- The response of the Indian state has been twofold.
- It attempts to provide **basic services to win back the Adivasis**, and simultaneously, it **seeks military conquest of the Maoists.**
- Its battle strategy includes emptying out the river that gives the Maoists sustenance: the people living in those areas.
- Mass incarcerations (Chhattisgarh has the highest capacity utilization of prisons in India), fake encounters, and large-scale recruitment into the police forces constitute the strategic line of the state.
- This state of affairs benefits the Indian state as the focus on the “law and order problem” allows it to avoid questions arising about the foundations of its development model.
- Companies find it easier to pay off politicians and bureaucrats to secure their projects **rather than genuinely winning the hearts of people**, something.
- The Maoists also gain as they get a steady stream of recruits from people fleeing the excesses of the government.

#### ***What is the present state of Maoists?***

- The insurgents have been **losing power for several years.**
- People have begun to fear them as much as they fear the Indian state.
- Social services have begun to reach many areas.
- The charms of modern society and education are exerting a pull on the youth, including members of the Maoist cadre.
- The **elimination of many top leaders** and the inability to offer a compelling alternate vision has led to ideological bankruptcy of the rank and file.
- In their current weakened state, the Maoists seem to have abandoned whatever principles they espouse.
- However, the ongoing excesses on the Adivasis and, the inexorable urge of the Indian state to **accelerate mineral extraction** mean that Maoists may continue to serve as a refuge for some more time.



- Like ordinary people, NGOs, lawyers and journalists are caught in the cross-fire between the government and the Maoists.
- The government finds it convenient to classify them as over-ground organizations of the Maoists and repress them.
- In this manner, the state turns the threat posed by the Maoists against the cause they claim to be struggling for.
- While many NGOs have condemned the Sukma incident, there is a compelling need for NGO's to carry out a consistent and concerted communication campaign to counter the government's strategy of labelling them "Maoist sympathizers".

#### **What could be done?**

- Our mining sector is a den of corruption and illegality.
- The average daily employment of labour in mining decreased from 549,000 people in 2004-05 to 512,000 people in 2013-14, despite a fourfold increase in the value of production.
- Most development projects were accompanied by violence, not just those in Maoist areas but also outside it.
- There exists a much needed **rethink on development**, including the Panchayats (Extension to the Scheduled Areas) Act, 1996, and the Forest Rights Act, 2006.
- A healthy contestation over the pace of extraction and distribution of natural wealth will be great for the country as well as the countryside.

### **13.2 ASSAM UNDER AFSPA**

#### **Why in news?**

The Centre has declared **the entire State of Assam a "disturbed" area** under the AFSPA for three more months, citing various violent activities by insurgent groups ULFA, NDFB and others.

#### **What is AFSPA?**

- AFSPA are Acts of the Parliament of India that grant special powers to the Indian Armed Forces in disturbed areas. It was enacted in 1958.
- According to The Disturbed Areas (Special Courts) Act, 1976 once declared 'disturbed', the area has to maintain status quo for a minimum of 3 months.
- The Armed Forces Special Powers Ordinance of 1942 was promulgated by the British on 15 August 1942 to suppress the Quit India Movement.
- AFSPA is confined to be enacted only when a state, or part of it, is declared a 'disturbed area'.
- Continued unrest, like in the cases of militancy and insurgency, and especially when borders are threatened, are situations where AFSPA is resorted to.
- **Section (3) of the AFSPA Act empowers the governor of the state or Union territory** to issue an official notification on The Gazette of India, following which the centre has the authority to send in armed forces for civilian aid.
- But under Section (3) of the Act, their opinion can still be overruled by the governor or the centre.
- Originally, it came into being as an ordinance in 1958 and within months was repealed and passed as an Act.

- At present AFSPA is in Assam, Nagaland, Manipur (except the Imphal municipal area), Arunachal Pradesh (only the Tirap, Changlang and Longding districts plus a 20-km belt bordering Assam), Meghalaya (confined to a 20-km belt bordering Assam) and Jammu and Kashmir.

#### ***What are the powers of AFSPA?***

- After giving such due warning, Fire upon or use other kinds of force even if it causes death.
- To arrest without a warrant anyone who has committed cognizable offences or is reasonably suspected of having done so and may use force if needed for the arrest.
- To arrest without a warrant anyone who has committed cognizable offences or is reasonably suspected of having done so and may use force if needed for the arrest.
- Stop and search any vehicle or vessel reasonably suspected to be carrying such person or weapons.
- Army officers have legal immunity for their actions.
- There can be no prosecution, suit or any other legal proceeding against anyone acting under that law.
- Nor is the government's judgment on why an area is found to be disturbed subject to judicial review.
- Protection of persons acting in good faith under this Act from prosecution, suit or other legal proceedings, except with the sanction of the Central Government, in exercise of the powers conferred by this Act.

#### ***What is the present status of AFSPA?***

- On July 8, 2016, in a landmark ruling, The Supreme Court of India **ended the immunity of the armed forces from prosecution** under AFSPA.
- It does not matter whether the victim was a common person or a militant or a terrorist, nor does it matter whether the aggressor was a common person or the state.
- The law is the same for both and is equally applicable to both.
- The Tripura government also decided to lift the controversial law which according “was in effect for the last 18 years to curb insurgency.”
- The state governments, as in Tripura’s case, can suggest whether the Act is required to be enforced or not.

### **13.3 FIGHTING THE RANSOMWARE**

#### ***Why in news?***

Ransomware has been contained globally, but the threat is not completely eliminated.

#### ***What is the issue?***

- One group of hackers picked up cyber tools stolen by another from America’s National Security Agency, and then effectively “weaponized” them to hold hostage millions of computers across the world.
- Users, mostly using older version of the Microsoft Windows software, were locked out of their computer and told to pay a ransom in bitcoins if they wanted to get back in.
- Though the attack was contained soon enough, the ransomware still managed to infect many European Public systems, Universities in China and a multinational courier delivery company in the US.

- India was reportedly one of the worst-affected countries although, notably, no major mass disruptions were reported.
- As for the hackers, they made just about a paltry \$100,000 in bitcoins which they are unlikely to be able to access anytime soon.

### ***How such kind of attacks can be prevented?***

- A good starting point is the three-layered Israeli strategy that goes beyond security to build a cyber system that is robust, resilient and has strong defence capabilities.
- Think of the country's IT infrastructure as a human body.
- The first level, the body needs a robust immune system to protect it from everyday attacks without disrupting the flow of work.
- The second level—that of building resilience, Think of the Indian Computer Emergency Response Team as the cyber equivalent of the Centres for Disease Control and Prevention in the US.
- The third level is that of national defence, wherein there is a direct threat to the state and its citizens. The government takes the lead role here but, importantly, its success depends on the robustness and resilience of the system as a whole.

### ***What is the status of the threat?***

- The fact that this attack could have been much worse had it, for example, not been designed to extort money but to actually take down critical infrastructure systems, high-value military targets or even nuclear installations.
- Yet, as this latest attack testifies, the world is still playing catch-up and several vulnerabilities remain.
- The vulnerabilities will continue to grow as our daily lives are further integrated into the cyber arena.
- The situation is arguably worse in developed nations which are far more dependent on the Internet—for example, last year hackers broke into a US water supply company and manipulated its water treatment systems.
- But developing countries, including India, can hardly afford to be complacent. After all, if cyberattacks in previous years could lead to huge monetary losses, today they can cost lives.

### ***What is the way forward?***

- Traditional security concepts and frameworks have struggled to adapt in the cyber arena.
- The lack of cyber security is a real concern, posing an imminent threat to the life and well-being of citizens, few states take direct responsibility for the cyber security of civilian assets.
- This includes not just critical infrastructure networks such as power lines and stock markets but also individuals and business organizations.
- In the cyber realm, it is equally difficult to trace and track the enemy; and even when one is neutralized, several others appear in no time.
- Fighting this hydra-headed monster is a challenge, to say the least, but it is one that must be tackled head on.
- This has to be a collective effort involving all stakeholder industry, academia, foreign partners and private individuals.

### 13.4 CHINA'S NEW AIRCRAFT CARRIER

#### *Why in news?*

China is acquiring its second aircraft carrier to counter India's defence.

#### *What is the status of Chinese aircraft carrier?*

- China launched its first indigenous aircraft carrier on April 2017 and it is likely to be commissioned in 2020.
- The two Chinese carriers are conventionally powered, not nuclear, which means they cannot be put on extended deployment.
- They lack the logistics capability to operate far away from Chinese shores.
- China will not send both its carriers on permanent deployment in the Indian Ocean, its interest's lies in the East and in the South China Sea.
- China plans a four- to six-carrier navy which will give it the capability to permanently deploy in the Indian Ocean. But that will take a couple of decades.
- To break India's dominance in the Indian Ocean, China has invested in a number of port projects in India's neighbourhood, referred to as 'string of pearls'.

#### *What is the status of Indian aircraft carriers?*

- The **INS Vikramaditya** is fully operational, and India also has decades of experience in operating aircraft carriers, it has used them in warfare.
- India launched its first indigenous carrier, **Vikrant**, in 2013 and it is likely to be commissioned in the early 2020s.
- By 2030 India will have three aircraft carriers in service.

#### *What is India's strategy?*

- **India has the geographical advantage**, with over 40 warships under construction.
- It will have nearly 200 warships by 2025.
- India has multinational cooperation in the maritime domain primarily with the US and Japan.
- All major Indian warships are being equipped with Barak 8 long-range surface-to-air missiles along with the supersonic Brahmos anti-ship cruise missiles.
- China's expected naval base in Gwadar in Pakistan is within the range of India's land-based fighters and missiles.
- India is going to acquire nuclear and diesel-electric attack submarines.
- India should beef up its air defence and land-based anti-ship missiles in the Andaman and Nicobar Islands as well as peninsular India.

### 13.5 KASHMIR RESTLESSNESS

#### *Why in news?*

- The results of April 2017 Kashmir by-polls shows the growing discontent of the youths in Kashmir
- Prime Minister appealed to the Kashmiri youth to choose tourism over terrorism

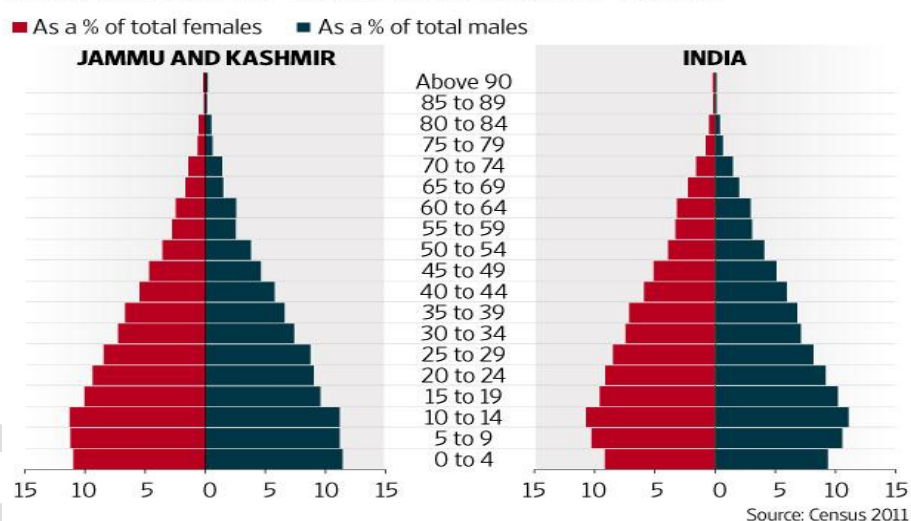
#### *What are the developmental status of Kashmir?*

- The key development indicators suggests that Jammu and Kashmir fares better than the rest of the country when it comes to most development indicators.
- In comparison to other insurgency-affected states, Jammu and Kashmir appears to be far more developed.
- The human development index (HDI), a summary measure of income, educational attainment, and life expectancy Jammu and Kashmir fares better than the average Indian state.
- The fourth round of the National Family and Health Survey, conducted in 2015-16 (NFHS 2015-16) shows that Jammu and Kashmir fares better on development indicators when compared with all-India averages.
- The share of 0-14-year-old population was slightly higher in Jammu and Kashmir (34%) than all-India (31%).

### What are the distressing factors among the people?

- It's youth population (15-34 years) also has a bigger employment problem.
- The lack of quality jobs may be one reason for the frustration of Kashmiri youth.
- Years of armed conflict and the heavily militarized environment has taken an emotional toll on the state's population.
- The survey conducted in Kashmir found that 45% of adults in the Kashmir valley display major symptoms of mental distress,

### YOUTH BULGE IS RELATIVELY MORE PRONOUNCED IN JAMMU AND KASHMIR THAN IN INDIA



### What are the steps taken by the government?

- Youths are the important resources of the nation, for the employment opportunity of the youth JKEDI (Jammu Kashmir entrepreneurship development institute) had been formed.
- **Himayat scheme** - Youths will be provided short-term training for at least 3 months, in a range of skills for which there is good market demand. At the end of the training, the youth are assured of a job and there is one year post-placement tracking to see how they are faring
- Udaan **programme** aims to provide skills training and enhance the employability of unemployed youth of J&K.
- The Scheme covers graduates, post graduates and three year engineering diploma holders respectively.
- Kashmir needs development that creates good jobs and reduces stress levels in the valley.

## 13.6 INTEGRATED THEATRE COMMANDS

### *Why in news?*

- A committee appointed by the Defence Ministry has recommended **creating 3 integrated theatre commands of the Indian armed forces.**
- Northern, western and southern, instead of the 17 in place currently.

### *What is an integrated theatre command?*

- An integrated theatre command envisages a **unified command of the three Services, under a single commander**, for geographical theatres that are of security concern.
- The commander of such a force will be able to bring to bear all resources at his disposal – from the IAF, the Army and the Navy – with seamless efficacy.
- The integrated theatre commander will not be answerable to individual Services.
- He be free to train, equip and exercise his command to make it a cohesive fighting force capable of achieving designated goals.
- The logistic resources required to support his operations will also be placed at the disposal of the theatre commander.
- This is in contrast to **the model of service-specific commands** which India currently has.
- In case of war, each Service Chief is expected to control the operations of his Service through individual commands, while they operate jointly.
- The committee, which was headed by **Lt General DB Shekatkar (retd)** has recommended the creation of 3 integrated theatre commands.

### *How is “jointness” different from integrated commands?*

- Jointness means that while the 3 Services progress and develop in their respective spheres with their independent identity, they function together and so coordinate their operations in war.
- **Integrated commands, on the other hand, seek to merge individual service identities to achieve a composite and cohesive whole.**
- It implies enmeshing the three Services together at different levels and placing them under one commander for execution of operational plans.

### *What is the problem?*

- The Army believes that it is time to move away from a “service specific approach to operations towards a system which avoids duplication, ensures optimum utilisation of available resources.
- Air force on the other hand feels that it doesn't have enough resources to allocate them dedicatedly to different theatre commanders.
- It believes that **India is not geographically large enough to be divided into different theatres**, as resources from one theatre can easily be moved to another theatre.
- The Navy considers the current model of control by the Navy Headquarters ideally suited for its strategic role.
- There are also underlying fears about the **smaller Services losing their autonomy and importance.**



### ***What is the way forward?***

- Experience from the US, Russia and China shows that the decision to create integrated theatre commands will have to be a political one, which will then be executed by the defence services.
- A precursor to the creation of integrated theatre commands has to be the appointment of a **Chief of Defence Staff** or Permanent Chairman, COSC.
- This was first proposed by the GoM in 2001, but hasn't been implemented so far.

## **13.7 ARMED FORCES JOINT DOCTRINE**

### ***Why in news?***

The Armed Forces have recently put out a joint doctrine.

### ***What are the features?***

- The document addresses the principles guiding the Indian military's approach to everything from nuclear war to internal security and counter-insurgency.
- The doctrine explicitly acknowledges that "surgical strikes" will be a formal part of India's retaliatory toolkit against "terror provocations."
- This is the first authoritative document released by the Indian government to use the phrase of "credible minimum deterrence" (CMD) in place of "credible deterrence" (CD).
- The doctrine paints potentially a new portrait of how India separates the control of its nuclear weapons between military and civilian authorities.
- The doctrine is revealing of the Indian military's contemporary preferences for expeditionary and overseas operations.

### ***What should be done?***

- Our Armed Forces is structured and operated in compartments.
- The need of the hour is the integrated mechanisms.
- A Chief of Defence Staff (CDS) was recommended for this purpose.
- He would be the principal military advisor to the government and oversee joint operational functioning of the three wings.
- India is still a largely continental country and threats to its territorial integrity.
- This clearly calls for land-based responses of various kinds, supported by the use of air power where necessary.
- Land power will continue to play a seminal role in our security concerns.
- So we need a single-point military advisor who must be an army person in the foreseeable future, and that authority should oversee operational functions.
- We could also have some army-air force unified commands especially in the northern sectors.
- But we must recognise the fact that the optimal concept of full integration is not feasible for some time to come.
- The sum of Rs 2.74 lakh crore that we will spend this year on defence preparedness is not something to be scoffed at.
- It must give value for money not just in numbers and types of ships or aircraft or guns or tanks, but in the quality of management that their exploitation must involve.

## PRELIMS BITS

### 14. HISTORY

#### *Sri Ramanujacharya*

- May 1, 2017 marks the 1000th birth anniversary of Saint Ramanuja, the Acharya who gave the **Navagranthas** to the world.
- Ramanuja's philosophical foundation was qualified monism, and is called **Vishishtadvaita** in the Hindu tradition.
- The Visishtadvaita System was originally expounded by **Bodhayana**, written about 400 B.C.
- The Visishtadvaita is so called because it inculcates the Advaita (or oneness of God) with Vishesha (or attributes). It is, therefore, qualified monism.
- God alone exists. All else that is seen are His manifestations or attributes.
- His ideas are **one of three subschools in Vedanta**. The other two are known as Adi Shankara's Advaita (absolute monism) and Madhvacharya's Dvaita (dualism).
- His theories assert that there exists a plurality and distinction between Atman (soul) and Brahman (metaphysical, ultimate reality).

### 15. ART AND CULTURE

#### *Chand Baori*

- Chand Baori is a **stepwell** situated in the village of Abhaneri near Jaipur, **Rajasthan**.
- It was built between the 9th and 10th century by **Raja Chanda of the Chauhan dynasty**. Later, the **Mughals added galleries** and a compound wall around the well.
- It has an upside down pyramid with **3,500 steps built on 13 levels** and at the bottom of the well, the air remains 5-6 degrees cooler than at the surface.
- The baori was attached to the Harshat Mata temple. It was a ritual to wash hands and feet at the well before visiting the temple.

#### *Khooni Bhandara*

- A unique **underground water management structure** of the Mughal era in Madhya Pradesh, known as the 'Khooni Bhandara,' is eyeing the tag of UNESCO world heritage site.
- Khooni Bhandara is a network of Kundis (well-like structures), which are inter-connected through an underground tunnel.
- The structure, also a popular tourist spot, is still functional and serves high-quality drinking water to a portion of Burhanpur.

#### *Keezhadi excavation*

- Keezhadi in **Sivaganga district** was chosen for excavation and artefacts unearthed by the ASI pointed to an ancient civilisation that thrived on **the banks of the Vaigai**.
- Carbon dating of charcoal found at the Keezhadi site established that the settlement there belonged to **200 BC**.

- The excavations thus proved that urban civilisation had existed in Tamil Nadu since the Sangam age.
- The Union Ministry of Culture has announced that the third phase of excavation will begin in this month and go on for three years.

## 16. GEOGRAPHY

### Cloudburst

- If rainfall of about 10 cm or above per hour is recorded over a place that is roughly 10 km x 10 km in area, it is classified as a cloudburst event.
- Cloudbursts **do happen in plains as well**, but there is a greater probability of them occurring in mountainous zones; it has to do with the terrain.
- Cloudbursts happen when saturated clouds are unable to produce rain because of the upward movement of very warm current of air.
- Raindrops, instead of dropping down, are carried upwards by the air current. New drops are formed and existing raindrops gain in size.
- After a point, **the raindrops become too heavy for the cloud to hold on to**, and they drop down together in a quick flash.
- Hilly terrains aid in heated air currents rising vertically upwards, thereby, increasing the probability of a cloudburst situation.

### Deep Ocean Mission

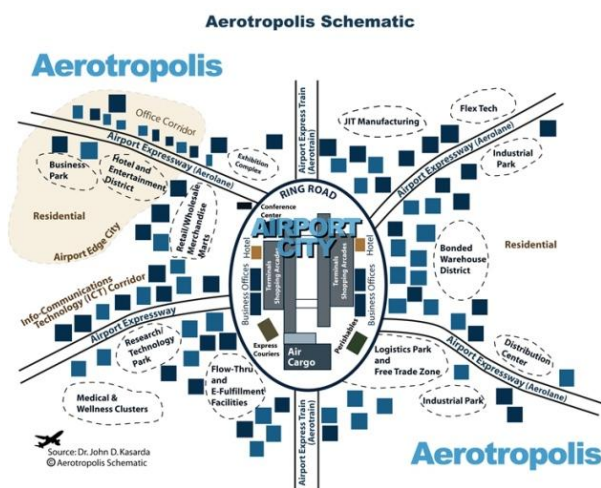
- Government of India is all set to launch 'Deep Ocean Mission' by January 2018 and it will **improve India's position in ocean research field**.
- India was the first country in the world to have been given the Pioneer Area for exploration of deep-sea mineral viz. **Polymetallic nodules** in the Central Indian Ocean Basin in 1987.
- A First Generation Mine-site (FGM) with an area of 18,000 sq km has been identified. Latest technologies for extraction of metals from the minerals have also been developed under the programme.

### 'Decadal Swing' in North Indian Ocean

- From 1993 to 2003 —the North Indian Ocean (NIO) sea levels fell.
- The NIO **consists of the Arabian Sea, the Bay of Bengal and part of the Indian Ocean up till the 5°S latitude**. After 2004, sea levels began an unprecedented, accelerated spike till 2014.
- This rise and fall was even as global temperatures steadily climbed and registered their largest two-decadal jump in more than a century.
- Such a "decadal swing" in the North Indian Ocean was unique and never observed in either the Pacific or Atlantic oceans. Also, the NIO was warming twice as fast as the other oceans after 2004.
- Sea levels primarily rise due to water expanding from atmospheric heat and, more water being added from, for instance, melting ice sheets and glaciers.
- **Wind flows**, which welled warm water on the Indian Ocean surface, changed directions every decade and probably influenced sea level patterns.
- In coming decades, in spite of rapid and rising temperatures, we might see a fall in sea levels.

## Aerotropolis in Assam

- The Centre is planning to build an aerotropolis in Guwahati, Assam and has sought 2,000 acres from the State for the purpose.
- An aerotropolis is **an airport centric metropolitan hub**, where infrastructure and economy are all based on the access to the airport serving as a commercial point like any traditional metropolis that contains a central city commercial core area and commuter-linked suburbs.
- **Andal Aerotropolis is India's first Aerotropolis** located at Andal in Durgapur sub-division between the industrial cities of Durgapur and Asansol in West Bengal, India.



## Banganapalle mango gets GI tag

- The Banganapalle mango has received a Geographical Indication (GI) tag, making **Andhra Pradesh** the proprietor of the variety.
- A GI is a sign that **identifies a product as originating from a particular location** which gives that product a special quality or reputation or other characteristic.
- Under Articles 1 (2) and 10 of the **Paris Convention for the Protection of Industrial Property**, geographical indications are covered as an element of IPRs.
- They are also covered the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement, which was part of the Agreements concluding the Uruguay Round of GATT negotiations.
- India, as a member of the WTO, enacted the Geographical Indications of Goods (Registration & Protection) Act, 1999 has come into force from 15th September 2003. Darjeeling Tea was the first Indian product to get the GI tag.
- Although a **GI is not strictly a type of trademark**, there are usually prohibitions against registration of a trademark which constitutes a geographical indication.

Bandar Laddu	Food Stuff	Andhra Pradesh
Joha Rice of Assam	Agricultural	Assam
Udayagiri Wooden Cutlery	Handicrafts	Andhra Pradesh
Bardhaman Sitabhog	Food Stuff	West Bengal
Bardhaman Mihidana	Food Stuff	West Bengal
Sikki Grass Products of Bihar (Logo)	Handicrafts	Bihar
Sujini Embroidery Work of Bihar(Logo)	Handicrafts	Bihar
Blue Pottery of Jaipur (Logo)	Handicrafts	Rajasthan
Kathputlis of Rajasthan (Logo)	Handicrafts	Rajasthan

### ***Pampa Conservation***

- The document, named Pampa Declaration, delineates a comprehensive plan and calls upon the government to **create an additional standing committee** at the local bodies to ensure participation of local government institutions.
- **Pampa:**It is the third longest river in the South Indian state of Kerala after Periyar and Bharathappuzha.
- The river is also known as 'Dakshina Bhageerathi' and 'River Baris'.
- The river rises at an altitude of 1,650 metres on the Peermade Plateau in the Idukki district of Kerala and joins the Arabian Sea through a number of channels.

### ***India's longest bridge***

- India's longest bridge - **the 9.15 km long Dhola-Sadiya bridge, over the River Brahmaputra**, in Assam was recently inaugurated.
- The bridge will enhance connectivity and greatly reduce travel time between Assam and Arunachal Pradesh.

### ***India's first underwater rail tunnel***

- The country's first tunnel **under the Hooghly river** for establishing metro link between Howrah and Kolkata was recently completed.
- Afcons Transtunnelstro, an Indo-Russian joint venture and Kolkata Metro Railway Corporation are involved in the project.
- The project connects Howrah to the west and Salt lake to the east.

### ***The Reang of Tripura***

- Reang or Riang are one of the 21 scheduled tribes of the Indian state of Tripura.
- They speak the **Reang dialect of Kokborok language** which is of Tibeto-Burmese origin and is locally referred to as Kau Bru.
- Education has been pressing a concern for the tribe. As per the 2001 census, 66.93% of the Reang population is illiterate.
- Traditionally, **jhum (shifting) cultivation** has been one of the primary agricultural activities of the Reang tribe. However, with land rights being granted, many members of the community have taken to ploughing or settled cultivation.

### ***Narmada Seva Mission***

- Prime Minister launched the Narmada Seva Mission for the conservation of the crucial river, which is a lifeline of Madhya Pradesh.
- He also released **Narmada Pravah** - the Mission Work Plan for the river Narmada.
- **Narmada Seva Yatra** was started in December 11, 2016 from Amarkantak and ended in May 15, 2017.

### ***Narmada – Background:***

- The source of the Narmada is Narmada Kund, located at Amarkantak on the **Amarkantak Plateau** in Madhya Pradesh.
- It is the third longest river that flows entirely within India, after the Godavari, and the Krishna. And the fifth longest river in the Indian subcontinent.
- It is one of the rivers in India that flows in a rift valley, flowing west between the Satpura and Vindhya ranges.
- It flows through the states of Madhya Pradesh, Maharashtra and Gujarat.

### ***Electric Mass Mobility System***

- **Nagpur** earned the distinction of becoming the country's first city with electric fleet of 200 electric vehicles, including taxis, buses, e-rickshaw and autos.
- Maharashtra CM inaugurated **India's first multi-modal electric vehicle project** at the Nagpur Airport Complex. With this, Maharashtra has become the first state to provide various incentives to e-taxis.

### ***Moon Village***

- **China and Europe** are planning to build the first-ever "moon village" that could serve as a **launching pad for deep space missions** such as one to Mars, or even as a spot for space tourism and lunar mining.

## **17. GOVERNMENT INITIATIVES**

### ***National Commission for Backward Classes***

- It will be constituted under **Article 338B** and will commence functioning as a **constitutional authority**, in the same manner as the National Commission for Scheduled Castes under article 338 and the National Commission for Scheduled Tribes under Article 338A.
- The new Commission will exercise the function of hearing the complaints/grievances of socially and educationally backward classes.
- It will have the powers of a **Civil Court** for this purpose.
- It will have the duty of advising of the socio economic development of the socially and educationally backward classes and evaluate the progress of their development, unlike the present NCBC which does not have this role.

### ***SAMPADA***

- It is a new Central Sector Scheme – SAMPADA (**Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters**) for restructuring the schemes of Ministry of Food Processing Industries with the period 2016-20 coterminous with the 14th Finance Commission cycle.
- The objective of SAMPADA is to **supplement agriculture, modernize processing and decrease agri-waste**.



- It is a comprehensive package to give a renewed thrust to the food processing sector in the country.
- The implementation of SAMPADA will result in creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet.

### **Sharada Prasad Committee**

- The committee was constituted to review, rationalize and optimize the Functioning of Sector Skill Councils.
- Sector Skill Councils (SSCs) are industry led and industry governed bodies which have been mandated to ensure that skill development efforts being made by all the stake holders are in accordance with the actual needs of the industry and develop National Occupational Standards/Competency Standards and Qualification Packs (QPs).
- Presently, the National Skill Development Corporation (NSDC) has approved formation of 40 SSCs in different Sectors.
- The Ministry of Skill Development has invited comments/ suggestions of the public on the report of Sharada Prasad Committee.

### **AIIMS in Assam**

- The Union Cabinet has given its approval for establishment of new AIIMS at Kamrup in Assam
- The establishment of new AIIMS will serve the dual purpose of providing super speciality health care to the population while also help create a large pool of doctors and other health workers in this region that can be available for primary and secondary level institutions / facilities being created under National Health Mission (NHM).

### **No-fly list**

- The government plans to empower domestic airlines to **ban unruly passengers for up to two years** in a move that comes after a Shiv Sena MP beat up an Air India staffer.
- The ministry has categorised “disruptions” by flyers into three levels.
  - **level 1** is for disruptive behaviour like physical gestures;
  - **level 2** is for physically abusive behaviour like pushing, kicking, and sexual harassment; and
  - **level 3** for life-threatening behaviour and damage to aircraft operating systems.
- For offences under level 1, a passenger can be grounded for three months, while for level 2 and level 3 offences, he or she can be banned for six months and two years, respectively.
- The global airline lobby group International Air Transport Association (IATA) urged India to ratify the **Montreal Protocol 2014**, which deals with the safety of flights and passengers.

### **Maternity Benefit Program**

- The Union Cabinet has given ex-post facto approval to Pan-India implementation of Maternity Benefit Program **which now has been extended to all districts of the country.**
- The Maternity Benefit Program will **provide compensation for the wage loss** in terms of cash incentives so that the women can take adequate rest before and after delivery and not be deprived of proper nutrition.
- The cash incentives provided would lead to improved health seeking behaviour amongst the Pregnant Women and Lactating Mother (PW&LM) to reduce the effects of under-nutrition namely stunting, wasting and other related problems.

- All eligible Pregnant Women and Lactating Mothers (PW&LM), excluding the Pregnant Women and Lactating Mothers who are in regular employment with the Central Government or State Government or Public Sector Undertakings or those who are in receipt of similar benefits under any law for the time being.
- Pregnant Women and Lactating Mothers who are eligible will receive a **cash benefit of Rs.5,000/- in three installment.**

### ***Vidya-Veerta Abhiyan***

- The Ministry of HRD has launched “Vidya, Veerta Abhiyan” to **encourage varsities to display portraits of Param Veer Chakra-decorated soldiers.**
- The objective is to **instill sense of “nationalism” and “patriotism” among the students.**
- Universities and educational institutions across country will soon have a “wall of heroes”, depicting portraits of soldiers who showed extraordinary courage in defending the nation.
- **Param Vir Chakra:**It is India's highest military decoration awarded for the displaying distinguished acts of valour **during wartime.**
- It can be awarded to officers or enlisted personnel from all branches of the Indian military. To date, the award has not been conferred twice (**can be awarded twice**).

### ***SHAKTI - Scheme for Harnessing and Allocating Koyala (Coal) Transparently in India***

- **Benefits of SHAKTHI :**
  - Coal available to all Power Plants in transparent and objective manner.
  - Auction to be made the basis of linkage allocations to an Independent Power producers.
  - Cheaper and affordable ‘Power for All’.
  - The Stress on account of non-availability of linkages to Power Sector Projects shall be overcome. Good for the Infrastructure and banking Sector.
  - Power Purchase Agreement holders to reduce tariff for linkage; Direct benefit of reduced tariff to Discom/consumers.

### ***SAMADHAN***

- The solution to the **Left Wing Extremism** problem is not possible with any silver bullet. There is no short-cut for it.
- For this short term, medium term and long term policies need to be formulated at different levels.
- There is need to find a solution for this problem and the strategy is available and encompassed in the word ‘SAMADHAN’ which means.
  - S- Smart Leadership , A- Aggressive Strategy, M- Motivation and Training, A- Actionable Intelligence, D- Dashboard Based KPIs (Key Performance Indicators) and KRAs (Key Result Areas), H- Harnessing Technology, A- Action plan for each Theatre, N- No access to Financing

### ***e-Krishi Samvad***

- e-Krishi Samvad is internet-based interface and is a unique platform that will provide direct and effective solutions to the problems faced by farmers and stakeholders in the agriculture sector.
- It is also useful to get information pertaining to welfare and development of agricultural stakeholders.

### **LOTUS HR Project**

- The project **Local Treatment of Urban Sewage Streams for Healthy Reuse** (LOTUS HR) is an Indo-Netherlands joint project funded by Department of Biotechnology(DBT), Govt of India and NWO/STW, The Govt of Netherlands.
- The project aims to demonstrate a **novel holistic waste-water management approach**, that will produce clean water, while simultaneously recovering nutrients and energy from the urban waste water, thus converting drain into profitable mines.
- Special attention will be paid to pathogen removal and removing conventional and emerging pollutants.
- The project will develop an **innovative pilot scale plant**, suitable to cope with Indian conditions in a location specific manner.
- The Minister of Science & Technology has laid the foundation stone to mark the **beginning of work on cleaning the Barapullah drain** in New Delhi today.

### **Bicycle Patrols**

- The Union Minister of State for Home Affairs has flagged off the “Bicycle Patrols” launched by the **Delhi Police**.
- As a '**green**' initiative for patrolling the parks, congested lanes and by-lanes, the cooperative societies etc, the Delhi Police has introduced bicycle patrols to complement and supplement its existing motorcycle and PCR patrols which focus mainly on crime prevention along the arterial and main roads of Delhi.

### **Darwaza Band**

- It is a new campaign titled 'Darwaza Band' to promote toilet use and freedom from open defecation across the country's villages.
- The campaign produced by the MDWS under Swachh Bharat Mission and has been **supported by the World Bank** and is being rolled out countrywide immediately after the launch.
- It is designed to encourage behaviour change in men who have toilets but are not using them.

### **Technology and Innovation Support Centers**

- The Department of Industrial Policy and Promotion (DIPP) and World Intellectual Property Organization (WIPO) have signed an agreement to establish Technology and Innovation Support Centers (TISC).
- TISC program **provides innovators in developing countries** with access to locally based, high quality technology information and related services, helping them to exploit their innovative potential and to create, protect, and manage their intellectual property (IP) rights.
- The Cell for IPR Promotion and Management (CIPAM) is designated as the National Focal point for the TISC national network.

### **One IP- Two Dispensaries**

- Under this scheme, ESIC has given an option to an Insured Person (IP) to choose two dispensaries, one for self and another for family through an employer.
- This will benefit all IPs, **especially migrant workers** who are working in other than home State, while their families are living in their native States.
- Because of non-availability of option of second dispensary, the dependant members of family are often deprived of medical benefits.

### **Tarang Sanchar**

- It is a web portal for Information sharing on **Mobile Towers and EMF Emission Compliances**.
- It will go a long way in clearing the myths and misconceptions of public on mobile towers and emissions from them.
- The portal will empower common man about towers working in a particular locality and whether they are compliant to the EMF emission norms defined by the Government.

### **Integrated Case Management System**

- The system will help litigants access data and retrieve information online and will be a step towards a **paperless Supreme Court**.
- ICMIS will provide information on Next tentative date of listing generated through e-process, Categories and Acts & Section, Office Reports, Listing dates, Judgement/Orders, Tracking of file movement and Status of the notice issued
- With the help of a new software, **High Court will be able to access the case records** and it will reduce the repetition of case data entries in the Supreme Court.

### **Electricity Accessibility Ranking**

- India has climbed up to twenty-sixth position in **World Bank's** electricity accessibility ranking in the current year from 99th spot in 2014.

### **Public Affairs Index**

- Two South Indian States - Kerala and Tamil Nadu - secured first and second rankings for the second year in a row in **public affairs index (PAI) in governance in States**.
- The report was based on a wide range of themes such as essential infrastructure, support to human development, social protection, women and children, crime, law and order, delivery of justice, environment, transparency and accountability, fiscal management and economic freedom.
- Punjab is the best performer among all States in the category of essential infrastructure.
- In human development, Kerala, Maharashtra, and Punjab are top of the table.
- Kerala, Assam and Madhya Pradesh secured top three ranks in implementation of social protection policies.
- Tamil Nadu secured first rank in maintaining law and order, delivery of justice and environment categories and secured last rank in transparency and accountability in the administration

### **Government Amends Definition of Start-Ups**

- In order to promote entrepreneurship in the country, the Government of India has amended the definition of a Startup.
- **Age of Startup increased:** An entity shall be considered as a Startup up to seven years from the date of its incorporation/ registration (from earlier 5 years). However, in the case of Startups in the Biotechnology sector, the period shall be up to ten years from the date of incorporation/ registration.

- **No Letter of Recommendation required:** No letter of recommendation from an incubator/industry association shall be required for either recognition or tax benefits
- **Potential of Job and Wealth Creation:** The scope of definition has been broadened to include scalability of business model with potential of employment generation or wealth creation.

### ***National Waterways***

- The Union Cabinet has accorded its approval for amendment of Central Road Fund Act, 2000 to allocate 2.5% of the proceeds of **Central Road Fund (CRF)** for development and maintenance of National Waterways (NWs).
- An allocation of 2.5% of CRF proceeds would provide approximately Rs.2000 crore per annum for the development and maintenance of NWs at existing rates of duties funding the CRF.
- The National Waterways Act, 2016 for developing and maintaining the existing five NWs and new 106 NWs has been passed by Parliament and is now enforced.
- The arrangement approved by the Cabinet; would make available adequate and sustainable source of funding for NWs through institutional means of CRF.

### ***SEVA App***

- Union Minister of State (IC) for Power, Coal, New & Renewable Energy and Mines has launched the Saral Eindhyan Vitaran Application (SEVA), developed in-house by Coal India Limited (CIL) for power sector consumers.
- SEVA, which is aimed at increasing the Consumer Connect as well as the Transparency and Accountability in Coal dispatch.
- SEVA Dashboard provides summary of quantity of coal dispatched along with grades for the given day, month, and the latest yearly updates as well.
- It also provides information on rake movement including latest status of indents of rake, allotment and loading. This would help consumers making advance logistics planning.
- Further, the app has a dedicated backend team to monitor the status of specific grievances from consumers and take action on the feedback received on the app.

### ***Dr Ambedkar National Award***

- The President of India presented the “Dr. Ambedkar National Award for **Social Understanding and upliftment of Weaker Sections** for the year 2011, 2012 and 2014”.
- The award was instituted by the Government of India in the year 1992 and one award each year is presented to individuals or organizations.
- The function was organized by The Ambedkar Foundation under Ministry of Social Justice and Empowerment and award for the year 2014 was jointly presented to Shri Babu Lal Nirmal of Rajasthan and to Amar Sewa Sangam of Tamil Nadu.

### ***Avvaiyar Award***

- The award was constituted by late CM J Jayalalithaa in 2012 **to honour women** actively working in the areas of social reform, women’s development, culture, media, inter-faith harmony, and administration, among others.

- Tamil Nadu government honoured social worker **Padma Venkataraman** with the state's "Avvaiyar Award" for 2017 for her efforts in the areas of women's welfare and rehabilitation of leprosy-affected persons for the past 30 years.

### ***Bhairon Singh Shekhawat Life Time Achievement Honour in Public Service***

- The President of India visited Jaipur to deliver the 1st Bhairon Singh Shekhawat Memorial Lecture and present the 1st Bhairon Singh Shekhawat Life Time Achievement Honour in Public Service to **Pawan Kumar Chamling**, Chief Minister of Sikkim.
- Bhairon Singh Shekhawat was the 11th Vice-President of India and also served as the Chief Minister of Rajasthan three times.

## **18. INTERNATIONAL EVENTS AND ISSUES**

### ***UN-Habitat***

- India has been unanimously elected as the President of the UN-Habitat.
- It is the UN programme working towards a better urban future. Its mission is to **promote socially and environmentally sustainable human settlements development** and the achievement of adequate shelter for all.
- UN-Habitat reports to the United Nations General Assembly.
- Since the UN-Habitat came into being in 1978, It is only the third time that India has been elected to lead this important organization after 2007 and 1988.
- The theme of the 26th Meeting of the Governing Council is "Opportunities for effective implementation of the New Urban Agenda".

### ***The World Organisation for Animal Health (OIE)***

- The OIE is the **intergovernmental organisation** responsible for improving animal health worldwide.
- It is recognised as a reference organisation by the World Trade Organization (WTO) and in 2016 has a total of 180 Member Countries.
- The OIE maintains permanent relations with 71 other international and regional organisations and has Regional and sub-regional Offices on every continent.
- The day-to-day operation of the OIE is managed at the Headquarters situated in Paris.

### ***Global Platform for Disaster Risk Reduction***

- India is participating in the five day Global Platform for Disaster Risk Reduction (GPDRR) summit being held in Mexico.
- The summit will mark the first opportunity since 2015 to review global progress in the implementation of SFDRR.
- **Sendai Framework (2015 – 2030):** It is an international document which was adopted by UN member states at the 3<sup>rd</sup> World Conference on Disaster Risk Reduction held in Sendai, Japan.
- It is the successor agreement to the Hyogo Framework for Action (2005–2015).
- The Sendai Framework sets four specific priorities for action and to support the assessment of global progress in achieving the outcome and goal of the Sendai Framework, **seven global targets** have been agreed.



### ***International Solar Alliance***

- The world's smallest republic, **Nauru** — has become the sixth country to ratify the ISA Framework pact initiated by the Indian and French Governments at the climate change summit held at Paris in 2015.
- The International Solar Alliance is an initiative jointly launched by the **Prime Minister of India and the President of France** on 30 November 2015 at Paris, in the presence of the Secretary General of the UN, on the side lines of COP21.
- Under the ISA, **solar rich countries lying fully or partially between the Tropics** are invited to share and aggregate data regarding their needs and objectives; emulate successful practices; and set up common mechanisms and instruments, in order to address obstacles to deployment at scale of solar energy.
- Headquartered in India, the alliance, conceived as a coalition of solar resource-rich countries to collaborate on meeting their energy needs through a common, agreed approach, will become a legal entity once at least 15 countries ratify and deposit the framework agreement.

## **19. NATIONAL INSTITUTIONS**

### ***National Technical Research Organisation***

- The Home Ministry issued a notification listing NTRO under **The Intelligence Organisations (Restriction of Rights) Act, 1985**.
- The NTRO, which reports to the PMO and the National Security Advisor, will now have the same “norms of conduct” as the Intelligence Bureau and the Research and Analysis Wing.
- The Act prevents employees of a notified agency from forming unions/associations, puts restrictions on the employee's freedom of speech, bars any communication with the press, or publishing a book or other document without the permission of the head of the intelligence organisation.
- The **NTRO was created after the 1999 Kargil conflict** as a dedicated technical intelligence agency.

### ***North Eastern Council***

- Recently PM has hinted at the possibility of upgrading the North Eastern Council (NEC) as a state-of-the-art resource centre capable of meeting the aspirations of the people.
- The North Eastern Council was constituted in 1971 by an Act of Parliament.
- The North Eastern Council is the nodal agency for the economic and social development of the North Eastern Region which consists of the eight States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.
- The constitution of the Council has marked the beginning of a new chapter of concerted and planned endeavour for the rapid development of the Region.

### ***National Platform for Disaster Risk Reduction***

- The multi-stakeholder NPDRR was constituted by the Government in 2013. NPDRR is **chaired by the Union Home Minister** and Minister of State in-charge of Disaster Management in the Ministry of Home Affairs is the Vice Chairperson of NPDRR.
- The main functions of the NPDRR are:

- To review the National Disaster Management Policy and progress made in the field of Disaster Management from time to time.
- To appreciate the extent and manner in which the Disaster Management Policy has been implemented by the Central and State Governments, and other concerned agencies, and to give appropriate advice in the matter.
- To advise on coordination between the Central and State Governments/UT Administrations, local self-governments and civil society organizations for Disaster Risk Reduction.
- The National Platform aims to bring together the whole range of India's disaster risk community.

## 20. ECONOMY

### *Cobweb Phenomenon*

- **An abundance of the produce has led to a crash in prices.** If it is tomatoes in Karnataka, it is red chillies in Andhra Pradesh and Telangana, and tur and grapes in Maharashtra.
- While most farmers complain about the poor remuneration for their produce in comparison to the prices that prevailed in the previous season, agricultural economists have traced the reasons for the glut and the resultant price crash to the “cobweb phenomenon.”
- After the prices of a particular agricultural commodity shoot through the roof during a season of scarcity, farmers resort to boosting the production on the premise of the pre-existing demand and prices, leading to a problem of plenty. This is the cobweb phenomenon.
- Most of the agricultural products that have now suffered a price crash due to their abundance had yielded a rich dividend in the previous season.

### *Railway safety cess*

- Plagued by repeated derailments, the railways is considering imposing safety cess on train tickets to be utilised for strengthening accident prevention measures.
- The cess **could be fixed at less than 2% of the total fare amount.**
- A safety cess was last levied in 2002 during Nitish Kumar's term as the railway minister to service a special fund of Rs 17,500 crore.
- The fund was set up to take up several tasks, including restoration of old bridges, besides signaling and track modernisation works.

### *National Steel Policy 2017*

- The Union Cabinet chaired by the Prime Minister has given its approval for National Steel Policy (NSP) 2017.
- It seeks to enhance domestic steel consumption and ensure high quality steel production and create a technologically advanced and globally competitive steel industry.
- Key features of the NSP 2017:
  - Create self-sufficiency in steel production by providing policy support & guidance to private manufacturers, MSME steel producers, CPSEs,
  - Encourage adequate capacity additions,

- Development of globally competitive steel manufacturing capabilities,
  - Cost-efficient production,
  - Domestic availability of iron ore, coking coal & natural gas,
  - Facilitating foreign investment,
  - Asset acquisitions of raw materials &
  - Enhancing the domestic steel demand.
- The Indian steel sector has grown rapidly over the past few years and presently it is the third largest steel producer globally, contributing to about 2% of the country's GDP.
  - India has also crossed 100 MT mark for production for sale in 2016-17. The New Steel Policy aspires to achieve 300MT of steel-making capacity by 2030.

### **Base Erosion and Profit Shifting (BEPS)**

- The Union Cabinet has given its approval for the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS.
- The Convention is an outcome of the **OECD / G20 BEPS Project** to tackle BEPS through tax planning strategies that exploit gaps and mismatches in tax rules to **artificially shift profits to low or no-tax locations** where there is little or no economic activity, resulting in little or no overall corporate tax being paid.
- This undermines the fairness and integrity of tax systems because businesses that operate across borders can use BEPS to gain a competitive advantage over enterprises that operate at a domestic level.

### **Paytm Payment Bank**

- India's leading digital wallet player Paytm has received the final licence from the Reserve Bank of India for its payments bank entity.
- As per the Central bank's guidelines, the company will transfer its wallet business to the newly incorporated payments bank entity under a payments bank licence
- A payments bank cannot lend or give advance to customers.
- It can issue cheque books and debit cards but not credit cards.
- It can accept upto Rs. 1 lakh as a deposit.
- The purpose behind these banks is to provide quick and basic banking services to the people at the bottom. Airtel too is launching a payments bank.

### **Atal Pension Yojana**

- The subscribers base under the Atal Pension Yojana (APY) has reached about 53 Lakhs.
- APY is a government-backed pension scheme in India targeted at the unorganised sector.
- In APY, for every contribution made to the pension fund, the Central Government would also co-contribute 50% of the total contribution or Rs 1,000 per annum, whichever is lower, to each eligible subscriber account, for a period of 5 years.
- The minimum age of joining APY is 18 years and maximum age is 40 years. The age of exit and start of pension would be 60 years.
- Therefore, minimum period of contribution by the subscriber under APY would be 20 years or more.

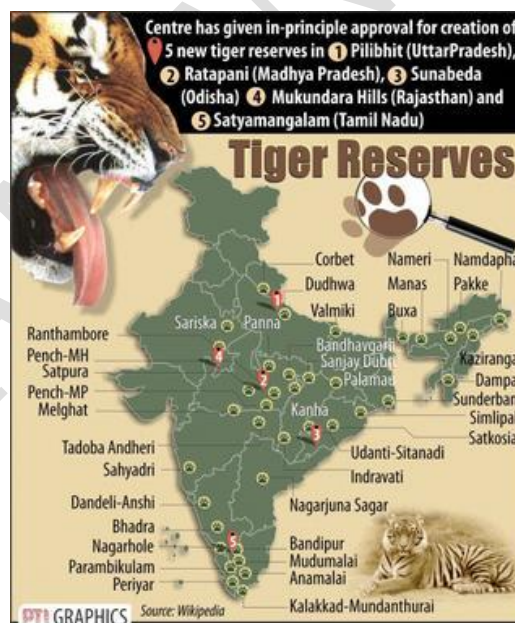
## 21. ENVIRONMENT

### Tiger Relocation

- Six tigers would be relocated to the **Buxa Tiger Reserve (BTR) in north Bengal** from neighbouring Assam as part of a plan for augmentation of the tiger population in the reserve.
- The technical committee of the National Tiger Conservation Authority (NTCA) has given its approval for the augmentation of the tiger population in Buxa.
- The relocation of wild tigers should only be considered when the factors, such as **poaching and anthropogenic pressure**, that have caused the low population and local extirpation of the species have been addressed.
- There are **50 tiger reserves in India** which are governed by Project Tiger which is administered by the NTCA.

### Bhitarkanika National Park

- With the onset of the **breeding season of estuarine crocodiles**, Bhitarkanika National Park will be closed for 3-months.
- It is a national park located in **Kendrapara district of Odisha** in eastern India. It has been designated as a National Park since 1998. It is also a **Ramsar site**.
- The national park is surrounded by the Bhitarkanika Wildlife Sanctuary. **Gahirmatha Beach and Marine Sanctuary** lies to the east, and separates swamp region cover with canopy of mangroves from the Bay of Bengal.
- The sanctuary is the second largest mangrove ecosystem in India. The national park and wildlife sanctuary is inundated by a number of rivers - Brahmani, Baitarni, Dhamra, Pathsala and others.
- The park is home to the **saltwater crocodile, white crocodile**, Indian python, black ibis, wild pigs, rhesus monkeys, chitals, darters, cobra, water monitor lizard. **Olive ridley sea-turtles** nest on Gahirmatha and other nearby beaches.



### Albino Orangutan

- A rare albino orangutan has been rescued on the Indonesian part of Borneo island
- Native to Indonesia and Malaysia, orangutans are currently found in only the rainforests of Borneo and Sumatra.
- The **Bornean orangutan**(has three subspecies),which along with the **Sumatran orangutan** are **Asia's only great apes**, is classified by the IUCN as "**critically endangered**".
- The creatures have seen their habitat shrink dramatically as the island's rainforests are increasingly turned into oil palm, rubber or paper plantations, and are sometimes targeted by villagers who view them as pests.
- Orangutans are **the most arboreal of the great apes** and spend most of their time in trees.

### **Dholes**

- The Indira Gandhi Zoological Park (IGZP), running a conservation breeding centre for the **Dholes (Indian wild dogs)**, plans to reintroduce a pack of 16 into the forests.
- The pack should be genetically strong and have the basic instinct to hunt.
- **It will be the third such zoo effort** for the recovery and long-term survival of an endangered species.
- Earlier, Darjeeling's Padmaja Naidu Himalayan Zoological Park had a programme for the **red panda** and a **Pygmy Hog** Conservation Programme was undertaken in Assam.
- Protected under **Schedule 2 of the Wildlife (Protection) Act, 1972** and listed as '**endangered**' by the IUCN, the dhole was adopted by IGZP in 2014 under the Central Zoo Authority's mandate.
- Dholes, with a bushy tail and an alert gaze, are aggressive pack predators, covering long distances on a hunt.

### **Vaquita Porpoise**

- With an estimated 30 or fewer individuals remaining, vaquita porpoise – the world's most endangered marine mammal – may go extinct by 2018 if no action is taken to save them, a new study warns.
- Known as the '**panda of the sea**' because of its distinctive markings, the vaquita is **endemic to the Upper Gulf of California**.
- Unsustainable fishing practices and illegal wildlife trade driven by demand for the swim bladder, has caused the vaquita population to plummet.
- Listed as the most endangered cetacean in the world these mammals are often accidentally killed in gillnets also.

### **Smooth-coated otter**

- The species is found in most of the Indian Subcontinent and eastwards to Southeast Asia, with a disjunct population in Iraq.
- Smooth-coated otters are found in areas where fresh water is plentiful – wetlands and seasonal swamps, rivers, lakes, and rice paddies.
- Major threats to Asian otter population are **loss of wetland habitats** due to construction of large-scale hydroelectric projects, reclamation of wetlands for settlements and agriculture, reduction in prey biomass, poaching, and contamination of waterways by pesticides.
- The smooth-coated otter is listed as a **vulnerable species**. Their range and population are shrinking due to loss of wetland habitat and contamination of waterways by pesticides.
- The otters are also protected in India under the Wildlife (Protection) Act, 1972.

### **Red Sanders**

- Red sanders or red sandalwood, is a species **endemic to the southern Eastern Ghats** mountain range of South India.
- This tree is valued for the rich red color of its wood. The wood is not aromatic. The tree is not to be confused with the aromatic Santalum sandalwood trees that grow natively in South India.

- It is listed as an **Endangered species by the IUCN**, because of overexploitation for its timber in South India.
- It is also listed in the **appendix II of the CITES**, which means that a certificate is required in order to export it, that should only be granted if the trade is not detrimental to the survival of the species.

### **Common leopard**

- In India, **the leopard is found in all forest types**, from tropical rainforests to temperate deciduous and alpine coniferous forests.
- It is also found in dry scrubs and grasslands, **the only exception being desert and the mangroves of Sundarbans.**
- It is Listed in Schedule I of the Indian Wildlife (Protection) Act, 1972 and included in Appendix I of CITES and also listed as Near Threatened on the IUCN Red List.
- The leopard is the **smallest of the 'big cats'** (a term commonly used to describe the four largest wild cats – Tiger, Lion, Jaguar and Leopard. These are the only wild cats that roar).
- Melanism is a common occurrence in leopards. A melanistic leopard is often called black panther or jaguar, and mistakenly thought to be a different species.
- The biggest threats facing the common leopard in India are increasing conflict with humans, poaching for illegal trade in body parts and loss of habitat.

### **Cobra Lily**

- The incredibly rare *Arisaema translucens*, more commonly known as the cobra lily, was recently rediscovered in the western Nilgiris after 84 years.
- They can be found only in a small area measuring less than 10 square kilometres in the Nilgiris.
- The **Toda tribals of the Nilgiris**, who know the plant well, have an embroidery motif known as the 'podwarshk', which resembles it.
- The indigenous community could **predict the early arrival of monsoon from the blooming of the cobra lily's 'translucens'**.
- Prized for their beauty around the world, cobra lilies are at even greater risk of extinction from the commercial trade in exotic plants.
- Of the handful cobra lily species found in the Nilgiris, **only two are endemic.**
- Cobra lilies have vanished in the past decades along with the **disappearance of the shola tree patches** in which they were found.

### **Traffic pollution reaches the Himalayas**

- Geologists have found **high levels of sulphur from diesel emissions** along the Manali-Leh highway through the northwestern Himalayas.
- While the good news is that **heavy metal contamination was found to be low**, the soil had significantly high levels of sulphur (490–2033 ppm).
- Indian diesel contains some of the highest concentrations of sulphur in the world and an estimated 70% of automobiles running on Indian roads use diesel.



- With the likely increase of exhaust and sulphur in this region in the future, the paper recommends periodic monitoring of contaminant accumulation and human health along the Manali-Leh Highway.

## 22. SCIENCE AND TECHNOLOGY

### GSAT – 9

- South Asia Satellite GSAT-9 was launched by GSLV-F09 on Friday, May 05, 2017 from Sriharikota.
- GSAT-9 is a **Geostationary Communication satellite** realised by India.
- The primary objective of GSAT-9 is to provide various **communication applications in Ku-band** with coverage over South Asian countries.

### Cassini

- NASA has released a new movie sequence showing a close view of Saturn's atmosphere as the Cassini spacecraft swooped over the ringed planet during the first of its 'Grand Finale' dives.
- Cassini-Huygens was a joint project between NASA, the European Space Agency and the Italian Space Agency.

#### In brief | Nasa's Cassini mission

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

#### What is it?

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

#### How?

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

#### Phases

- 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)

#### Scientific instruments

The Cassini orbiter carries 12 instruments capable of "seeing" in wavelengths the human 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



CREDIT: NASA

### Brahmos

- The Army carried out a successful test of the advanced BrahMos Block III Land Attack Cruise Missile (LACM) in the Andaman and Nicobar Islands on May 3, 2017.
- BrahMos is a product of joint collaboration between India and Russia and is **capable of being launched from land, sea, sub-sea and air** against surface and sea-based targets.

- It is a **two-stage missile** with a solid propellant booster engine as its first stage which brings it to supersonic speed and then gets separated.
- The liquid ramjet or the second stage then takes the missile closer to 3 Mach speed in cruise phase.
- **Stealth technology and guidance system** with advanced embedded software provides the missile with special features.
- It is the first supersonic cruise missile known to be in service.
- It operates on '**Fire and Forget Principle**', adopting varieties of flights on its way to the target.
- The range of the supersonic missile was initially capped at 290 km as per the obligations of the MTCR. Since India's entry into the club, the range has been extended to 450 km and the plan is to increase it to 600km.

### ***New Frontiers program***

- The New Frontiers program is a series of space exploration missions being conducted by NASA with the purpose of researching several of the Solar System bodies, including the dwarf planet Pluto.
- There are currently **three New Frontiers missions in progress**.
- **New Horizons**, which was launched in 2006 and reached Pluto in 2015, **Juno**, which was launched in 2011 and entered Jupiter orbit in 2016, and **OSIRIS-REx**, launched in September 2016 towards asteroid Bennu for detailed studies from 2018 to 2021 and a sample return to Earth in 2023.

### ***Juno Mission***

- Juno's primary goal is to reveal **the story of Jupiter's formation and evolution**.
- Using long-proven technologies on a spinning spacecraft placed in an elliptical polar orbit, Juno will observe Jupiter's gravity and magnetic fields, atmospheric dynamics and composition, and evolution.
- The first close-up observations from Nasa's Juno spacecraft have captured towering clouds, swirling cyclones and dramatic flows of ammonia that drive giant weather systems on the largest planet in the solar system.
- The mission has also sent back data on Jupiter's magnetic field, thought to be much like our own compass-directing fields.
- In some places it's 10 times stronger than the strongest magnetic fields of Earth. And, like our planet, **Jupiter has northern and southern lights**, but as of now, its auroras look to be quite different from our own.

### ***Lunar Palace***

- Chinese students will live in a laboratory simulating a lunar-like environment for up to 200 days as Beijing prepares for its long-term goal of putting humans on the moon.
- The volunteers will live in the sealed lab (dubbed the "**Yuegong-1**", or "Lunar Palace") to simulate a long-term, self-contained space mission with no input from the outside world.
- Human waste will be treated with a bio-fermentation process, and experimental crops and vegetables grown with the help of food and waste byproducts.
- The Lunar Palace is the **world's third bioregenerative life-support base**, and the first developed in China.

### ***Mapping of the Universe with Quasar position***

- Astronomers have created the first map of the large-scale structure of the universe based entirely on the positions of quasars.

- Quasars are the incredibly bright and distant points of light powered by super-massive black holes.
- The amazing brightness of quasars is due to the supermassive black holes found at their centres.
- As matter and energy fall into a quasar's black hole, they heat up to incredible temperatures and begin to glow.
- To make their map, scientists used the Sloan Foundation Telescope to observe an unprecedented number of quasars.

### **Pressurized Heavy Water Reactors**

- The Union Cabinet has given its approval for construction of 10 units of India's indigenous Pressurized Heavy Water Reactors (PHWR).
- India has **current installed nuclear power capacity of 6780 MW** from 22 operational plants. Another 6700 MWs of nuclear power is expected to come onstream by 2021-22 through projects presently under construction.
- A PHWR is a nuclear power reactor, commonly using unenriched natural uranium as its fuel, that uses heavy water (deuterium oxide D<sub>2</sub>O) as its coolant and moderator.
- **Indian PHWRs:** Tarapur, Rawatbhata, Kalpakkam, Narora, Kakrapar and Kaiga.

### **3D Bio-Printer**

- Researchers have successfully generated **cartilage tissue using a 3D bioprinter**, an advance that could lead to new treatments for osteoarthritis.
- Previously, Scientists have found **a new bio-ink for 3D printing with stem cells** that allows **printing of living tissue known as bio-printing**.
- The new bio-ink contains two different polymer components: a natural polymer extracted from **seaweed** and a sacrificial synthetic polymer used in the medical industry.
- The findings, could help printing complex tissues using the patient's own stem cells for surgical bone or cartilage implants, which could be used in knee and hip surgeries.

### **Genetic secrets of the tea tree**

- Scientists have unlocked the genome of the tea tree, which may help explain why tea leaves are rich in antioxidants and caffeine, and **how they produce so many flavours**.
- The most popular varieties of tea — all come from the leaves of the evergreen shrub *Camellia sinensis*, otherwise known as the tea tree.
- The researchers found that **the leaves of the tea plant contain high levels of chemicals** that give tea its distinctive flavour. They include flavonoids and caffeine.
- The distinctive flavours of these teas are created by their different chemical compositions. The genetic knowledge could lead to ways to improve the quality and price of tea, by selective breeding of tea plants.

### **Heart Attack – Blood Group**

- People having a non-O blood group such as A, B or AB may be at an increased risk of a heart attack, new research has found.
- The higher risk for cardiovascular events in non-O blood group carriers may be due to having **greater concentrations of von Willebrand factor** — a blood clotting protein, researchers said.
- Non-O blood group carriers, specifically those with an A blood group, are known to have higher cholesterol.

- And **galectin-3 protein**, which is linked to inflammation and worse outcomes in heart failure patients, is also higher in those with a non-O blood group.

### ***Methane into Methanol***

- Researchers have developed a one-step process that **uses water to convert methane to methanol**.
- Methane has been identified as a greenhouse gas. Whereas, Methanol, on the other hand, has been considered a **good alternative to gasoline for use in automobile engines**.
- It is currently made using a variety of techniques and basic materials including coal, natural gas and even municipal waste.
- In this new effort, **water is used to oxidize methane** over a bed of copper containing zeolite – the unique structure of the mineral lets the water behave as an oxidant.
- The team claims the process is 97% efficient, emitting only methanol and hydrogen.

### ***NASA's inflatable greenhouse***

- One of the biggest problems we still have to solve when it comes to sending humans to live on the moon or Mars is food.
- To conjure up a possible solution to the issue, NASA scientists are developing an inflatable cylindrical greenhouse for outer space.
- The Prototype Lunar/Mars Greenhouse project uses what's called "**bioregenerative life support system**" that mimics Earth's environment to be able to grow plants outside our planet.
- The prototype involves an inflatable, deployable greenhouse to support plant and crop production for nutrition, air revitalisation, water recycling and waste recycling.
- The support system will introduce the carbon dioxide astronauts exhale into the greenhouse and will release the oxygen plants produce into the human settlement.
- While plants here at home grow under the sun, the greenhouse will likely have to be **buried underground** to protect the plants from radiation.

### ***Kodaikanal Solar Observatory***

- Every day, since 1904, staff at the Kodaikanal Solar Observatory in Tamil Nadu have aimed their telescope at the sun, freezing the images of its disc.
- This data has now been digitised by astrophysicists from the Indian Institute of Astrophysics, Bengaluru, and opened up to the public.
- Apart from use in academic studies, the data can be used to better understand sunspot activity which impacts climate and affects telecommunication systems.
- It also throws light on major events that had an impact on the earth's magnetic field.
- While '**spectroheliograms**' were taken at the Kodai observatory since 1902, it was in 1909 that the data was used to discover the Evershed effect – that gases in sunspots flowed radially outwards.
- The discovery by John Evershed put the KSO at par with the best observatories in the world. But its importance eventually declined as it was not upgraded or maintained.

### Immunotherapy

- Scientists have discovered a simple and practical way to kill cancer cells by using light to steer immune cells to attack the tumours.
- Immunotherapy is different from radiation or chemotherapy. Instead of directly killing cancer cells, immunotherapy **tells the immune system to act in certain ways by stimulating T cells to attack the disease.**
- But the problem is that immunotherapy can cause the immune system to overreact or under-react.
- Recently, scientists have conducted a study to understand and develop light-sensitive molecules (**channelrhodopsin**) that could efficiently guide T cells towards tumours.

### Combustible Ice

- Combustible ice is a **frozen mixture of water and concentrated natural gas.**
- Technically known as **methane hydrate**, it can be lit on fire in its frozen state and is believed to comprise one of the world's most abundant fossil fuels.
- Commercial development of this **frozen fossil fuel** has now moved closer to reality after Japan and China successfully extracted the material from the sea floor off their coastlines.
- Large-scale production, if not done properly, could flood the atmosphere with climate-changing greenhouse gases.
- Methane hydrate has been **found beneath seafloors and buried inside Arctic permafrost and beneath Antarctic ice.**

### Solibacillus kalamii

- Jet Propulsion Laboratory (JPL), the foremost lab of NASA for work on interplanetary travel, discovered the new bacteria on the filters of the International Space Station (ISS) and named it Solibacillus kalamii to honour the late President.
- Even as it orbits the earth some 400 kilometres above, **the ISS is home to many types of bacteria and fungi.**
- These spore formers tend to withstand high radiation and also produce some useful compounds protein-wise which will be helpful for biotechnology applications.

### 3 cases of Zika virus in Gujarat

- WHO has reported the first three “laboratory-confirmed cases of Zika virus disease” in India — all from Bapunagar area of **Ahmedabad.**
- Zika virus is a member of the virus family Flaviviridae. It is spread mostly by the bite of an infected Aedes species mosquito (**Ae. aegypti and Ae. albopictus**).
- Its name comes from the **Zika Forest of Uganda**, where the virus was first isolated in 1947.
- It can be passed from a pregnant woman to her fetus. Infection during pregnancy can cause certain birth defects.
- There is **no vaccine or medicine for Zika.**
- Zika infection during pregnancy can cause a birth defect of the brain called **microcephaly** and other severe brain defects. It is also linked to other problems, such as miscarriage, stillbirth, and other birth defects.



- There have also been increased reports of **Guillain-Barré syndrome**, an uncommon sickness of the nervous system, in areas affected by Zika.

### **Ransomware**

- It is malware that encrypts the files on an infected system and then **demand a ransom to decrypt them**, with escalation in the demand over time.
- The ransom demand is in Bitcoins, the cyber cryptocurrency that is hard to trace.
- The **Wanna Cryptor 2.0** 'ransomware', aka **WannaCry**, spreads using a flaw in older Microsoft Windows systems, which was made public when documents and cyber tools of the U.S. National Security Agency were leaked online.

## **23. EXERCISES AND OPERATIONS**

### **29th India-Indonesia Corpat**

- The 29th series of India–Indonesia **Co-Ordinated Patrol** (CORPAT) is scheduled from 09 – 25 May 2017.
- Indonesian Navy and the Indian Navy have been carrying out coordinated **patrolling twice a year since 2002** near the International Maritime Boundary Line to keep this part of the Indian Ocean region safe and secure.

### **Exercises**

- **Karavali Karunya:**The Annual Joint Humanitarian Assistance and Disaster Relief (HADR) Exercise involving multiple agencies and being conducted by Indian Navy's Western Nava Command commenced at Naval Station Karwar.
- Named as "Karavali Karunya", the exercise, which involves both professional exchange and actual disaster response mechanisms is set on a Tsunami disaster scenario and will continue till 20 May 2017.
- **SIMBEX-17:** SIMBEX is an acronym for "Singapore-India Maritime Bilateral Exercises". This year's edition of SIMBEX-17 being held in the **South China Sea**.

### **HADR**

- **Indo-Thailand** Humanitarian Assistance and Disaster Relief (HADR) Table Top Exercise 2017 is between the Indian Air Force and Royal Thailand Air Force (RTAF).
- The aim of the bilateral exercise is to evolve SOPs for **planning and executing relief missions** during unforeseen natural calamities like Tsunami, earthquakes, cyclones, floods etc.

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