

**VISION IAS**

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# **CURRENT AFFAIRS SEPTEMBER 2016**

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# 1. POLITY AND CONSTITUTION

## 1.1. CIVIL SERVICE REFORMS

### Why in news?

The paper, titled “**The Indian Administrative Service Meets Big Data**” was published recently. It also highlights about the need for immediate reforms should be brought about by the government.

### Challenges

- **Flailing state of IAS**
  - ✓ Apex civil service is not functioning anywhere close to its highest capacity. A new report by a political consultancy rated that Indian bureaucracy as the most inefficient in Asia.
  - ✓ There are perverse incentives for career advancement, a lack of specialized expertise, and a perception of widespread corruption.
- **Declining Human Capital**
  - ✓ The government is finding it hard to lure young talent away from increasingly attractive private-sector opportunities.
  - ✓ The combination of rising average age and lack of advanced academic qualifications implies that many candidates spend a majority of their twenties preparing for and taking entrance examinations for the elite civil services.
- **Diminished Independence**
  - ✓ A deeply pervasive culture of political interference.
  - ✓ Short average tenure in posts. For example it is as low as six months in Uttar Pradesh.
- **Poor Incentives for Advancement**
  - ✓ Bias toward seniority in filling key posts reduces the ability of high-performing officers to swiftly obtain promotions. Even poorly performing officers are given promotion.
- **Lack of Specialization**
  - ✓ Some experts have questioned whether the IAS can continue to exist as a generalist service in a world that is increasingly complex and where domain knowledge has become more valuable.
- **Malfeasance**
  - ✓ Endemic political interference can lead to rent-seeking behavior even for honest officers, who might feel forced to comply with questionable demands from superiors for fear of being punished.
  - ✓ Furthermore, uncompetitive public-sector salaries encourage officers to make extra money while in office.
- **Status-quoist attitude:** Stiff resistance from incumbent IAS officers on civil service reform.

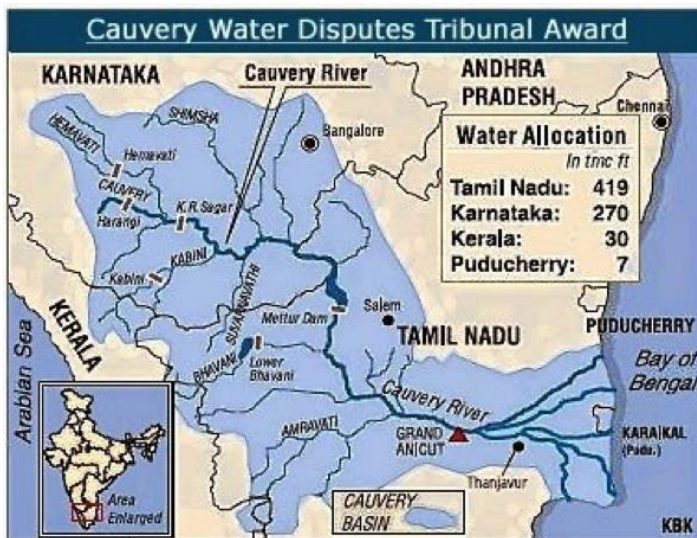
### A Reform Agenda for the Civil Service

- **Transfers and Plum postings:** It is imperative that the central and various state governments institute key safeguards to protect against arbitrary, politically motivated transfers and postings of civil servants.
- **Data:** The IAS should use data on civil servants’ abilities, education, and training when placing officers early in their careers. As officers gain experience, performance metrics can inform key decisions about promotion and allocation.
- **Lateral Exit:** The government should consider the proposal that officers deemed unfit for further service at certain career benchmarks be compulsorily retired through a transparent and uniform system of performance review.
- **State cadre:** State and central governments should discuss whether state cadres should be given greater latitude to experiment with increasing the proportion of local IAS officers and track their relative performance.

## 1.2. CAUVERY WATER ISSUE

### Why in news?

- In August this year, the Tamil Nadu government showed a deficit of 50.0052 tmcft (thousand million cubic feet) of water released from Karnataka reservoirs, as directed by the CDWT.
- Tamil Nadu sought the apex court's intervention saying its farmers needed the water to begin cultivating samba crops.
- On September 5, the Supreme Court ordered the Karnataka government to release 15,000 cusecs of water a day for 10 days, to Tamil Nadu. This led to widespread protests and bandhs in Karnataka.
- The Karnataka government's stand was water could not be released due to drought conditions in South Karnataka.
- On September 22 two Houses of the Karnataka legislature, on Friday, unanimously passed a resolution stating that "it is imperative for the State government to ensure" that no water is drawn from the four reservoirs in the Cauvery basin "except for drinking water requirements of villages and towns in the Cauvery basin and for the entire city of Bengaluru."



### Background

- As per 1924-agreement, Cauvery river water is distributed as 75% with Tamil Nadu and Puducherry, 23% to Karnataka and remaining to go to Kerala.
- In 1974, Karnataka (Mysore) asserted that the 1924 agreement entailed a discontinuation of the water supply to Tamil Nadu (Madras) after 50 years.
- Karnataka demanded that the river water should be divided according to international rules, i.e., in equal portions.

### Cauvery waters tribunal

- Owing to Tamil Nadu government's appeal to the Central government in 1986 to constitute a tribunal for solving the issue under Inter-State Water Disputes Act, 1956, the Cauvery Waters Tribunal was established on June, 2, 1990.
- In 2007, after sixteen years of hearing and an interim order later, the Tribunal announced its final order.
- It concluded that the water availability in Cauvery stood at 740 tmcft. (*Divisions between states are shown in the infographic*)

### Issue

- Endless cycle of sporadic litigation and ad hoc adjudication: Both Karnataka and Tamil Nadu continue to avoid any mutual engagement to share the shortfall during distress years.
- The Cauvery Water Disputes Tribunal, which gave its award in 2007, has asked the parties to share the deficiency on a pro rata basis.
- Weak implementation of award: Due to absence of a 'Cauvery Management Board' and a **Regulatory Authority**, which the Tribunal had wanted created to oversee implementation.
- Supervisory Committee: After notifying the final award in 2013, the Union government set up a Supervisory Committee (not independent Cauvery Management Board) comprising officials from the Union government

### Geography

- Tribunal award has been criticized for ignoring the fact that ground water in the river basin is more in lower riparian state and less in the upper riparian state while assessing water availability.
- **Deficiency in monsoon rainfall and less water due to el nino and 2yr drought is the main reason.** Karnataka had 18 percent short of normal rainfall.
- **Inefficient use of land**: Karnataka is cultivating large-scale water-intense crops such as sugar cane, despite their soil's dry-land-farming qualities.

**Geographic location of Tamil Nadu:** Tamil Nadu is present on the leeward side of western ghat for SW monsoon and receive majority of its rainfall via N-E Monsoon.



and the Central Water Commission and representatives of both States. The court has now asked Tamil Nadu to approach the committee, which will decide on further releases.

- Excessive complication of the matter is due to regional politics and delayed judicial proceedings.
- Separation of powers and KA defying SC:

#### What needs to be done?

- Ideally, any distress-sharing formula should come from a technical body and not courts.
- Set up the **Cauvery Management Board and Regulatory Authority**.
  - ✓ Once the Board is set up, all the Cauvery reservoirs in Karnataka will come under the control of the board and the state will lose its rights over the management of water.
  - ✓ The Board will take decisions on water usage and distribution.
  - ✓ The Board will also see to it that states ensure proper hydraulic structures at relevant sites. It will determine the amount of water to be received by the states.
  - ✓ During Bad Monsoons: The Board will ensure adequate storage by the end of May each year during good years. This will help during delays in the onset of monsoons.
    - In case of consecutive bad years, the Board will handle the issue appropriately by distributing water in a planned manner with minimum distress.
- Attempts to resolve dispute have focused mainly on resource sharing while ignoring equity and efficiency issues.
  - ✓ In a world of depleting water resources, fewer crop seasons and lower acreages, a resort to less water-intensive crops and better water management hold the key.
  - ✓ In the longer term, experts will have to devise a sustainable agricultural solution for the Cauvery basin, as the river does not seem to have the potential to meet the farming requirements of both sides.
  - ✓ Different types of irrigation like drip irrigation, sprinkler systems etc. should be adopted widely.
  - ✓ Re-Visiting MSP Policies esp. w.r.t. Water Intensive Food Crops
  - ✓ Crops should be planted according to Agro-Climatic conditions.
- River basin planning: Stakeholder states should plan collectively for the whole river basin.
  - ✓ The fact is the Cauvery basin is overdeveloped and legal instruments are insufficient to address the recurring water crisis.
- Non-political initiatives, such as the '**Cauvery Family**', a body formed a few years ago covering farmers of both States, could help co-operation between farmers.
- Data: Transmission of quick and accurate information — rainfall to reservoir storage — could help dispel the current mistrust among the different stake-holders.

#### Way forward

One solution can be to bring water under concurrent list and according to Mihir shah report central water authority can be constituted to manage rivers.

- Centre can play the role of impartial arbitrator. This role cannot be done by courts as this is a political question with political consequences.
- A Parliamentary Standing Committee on Water Resources too has stated the need for bringing the subject in the Concurrent List.
- It also urged the Centre to initiate "earnest" efforts to build a national consensus for bringing water in the Concurrent List of Constitution so that a comprehensive plan can be prepared for water conservation.

### 1.3. POLICE REFORMS

#### Why in news?

Supreme Court of India in Youth Bar Association of India v Union of India and others, made it mandatory for the police to upload within 48 hours a First Information Report (FIR) drawn up by it suo motu or on a complaint.

**Legislations by states:** e.g. Bombay Police Act of 1951, in Kerala by the Kerala Police Act of 1960, in Karnataka by the Karnataka Police Act of 1963, in Delhi by the Delhi Police Act of 1978 etc. But all of them were still patterned on the model of the old 1861 legislation and ignored the needs of 'democratic policing'.



## Background

- The Police System is a colonial legacy: Police Act of 1861 has a managerial philosophy, which was based on distrust of the lower ranks in the organization.
- Post-Independence: Police Act of 1861 continued to govern it.
- Police is an **exclusive subject under the State List** (List II, Schedule 7 of the Indian Constitution).
- But most of the states are following the archaic Indian Police Act 1861 with a few modifications.
- Police have become the 'subjects' of Parliamentarians and legislators – with a high degree of politicization and allegiance towards ruling party.

## National Police Commission

During the period between 1979 and 1981, the NPC produced eight reports. Major recommendations were centered around the problem of insulating the police from illegitimate political and bureaucratic interference

## Benefits Of recent SC directive

- Protecting the accused – now he/she knows that he figures in an FIR.
- He/ she will also know the allegations which formed the basis of his accusation.
- This order is also a shot in the arm for activists who want to protect citizens from State harassment on flimsy grounds.
- Makes it difficult for station house officers to ignore crime, a common practice adopted with a view to helping an offender
- Makes it difficult to dress police statistics up so that rise in crime is concealed.
- Two issues: the need to protect national security, as well as the privacy of a citizen; and the technical feasibility of implementing its directive that FIRs should be uploaded within 48 hours of their registration. According to the order, there will be exemption from the directive when the alleged offence is sensitive, such as sexual violence or one in which there is an angle of national security, insurgency or terrorism.
- Will solve the problem of corruption involved in getting an FIR filed.

### Seven directives given in *Prakash Singh* case

#### THE SEVEN DIRECTIVES IN A NUTSHELL

##### Directive One

Constitute a State Security Commission (SSC) to:

- Ensure that the state government does not exercise unwarranted influence or pressure on the police
- Lay down broad policy guideline and
- Evaluate the performance of the state police

##### Directive Two

Ensure that the DGP is appointed through merit based transparent process and secure a minimum tenure of two years

##### Directive Three

Ensure that other police officers on operational duties (including Superintendents of Police in-charge of a district and Station House Officers in-charge of a police station) are also provided a minimum tenure of two years

##### Directive Four

Separate the investigation and law and order functions of the police

##### Directive Five

Set up a Police Establishment Board (PEB) to decide transfers, postings, promotions and other service related matters of police officers of and below the rank of Deputy Superintendent of Police and make recommendations on postings and transfers above the rank of Deputy Superintendent of Police

##### Directive Six

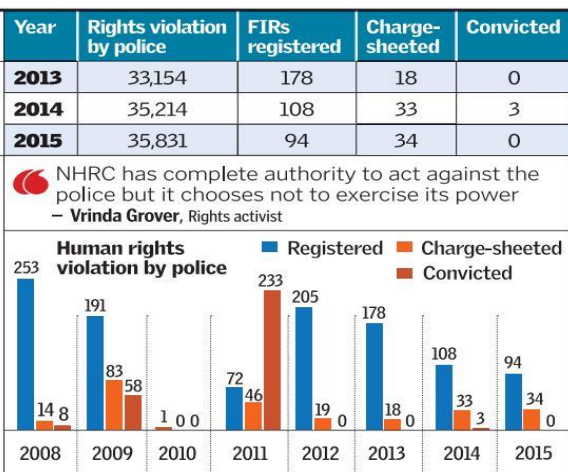
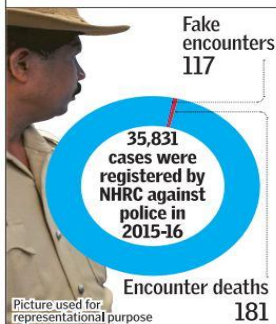
Set up a Police Complaints Authority (PCA) at state level to inquire into public complaints against police officers of and above the rank of Deputy Superintendent of Police in cases of serious misconduct, including custodial death, grievous hurt, or rape in police custody and at district levels to inquire into public complaints against the police personnel below the rank of Deputy Superintendent of Police in cases of serious misconduct

##### Directive Seven

Set up a National Security Commission (NSC) at the union level to prepare a panel for selection and placement of Chiefs of the Central Police Organisations (CPO) with a minimum tenure of two years.

### POLICE STORY

On an average, 120 FIRs were filed against policemen between 2006 and 2015, according to NCRB data



## Significance of police reforms

- The three greatest problems confronting the country today are:
  - ✓ The challenge of international terrorism,
  - ✓ The spread of maoist influence over vast areas of central india
  - ✓ The cancer of corruption.
- To tackle these problems we need a professional police force, well trained and equipped, highly motivated, and committed to upholding the law of the land and the constitution of the country.
- The police are the first responders in the event of any terrorist attack or Maoist violence, and they are also the backbone of our intelligence, investigation and anti-corruption agencies.
- Economic progress cannot be sustained if we are not able to generate a safe and secure environment.
- The democratic structure may also crumble if we do not arrest the trend of criminals gaining ascendancy in public life.

## Problems

- Political interference
- Lack of internal and external accountability. (**Thomas committee** has shown that nearly all states have ignored **Prakash Singh case directives.**)
- **Numbers:** The global average ratio of police-population is 270 to 100,000, where it's 120 in India. With far less police – ill trained, ill-equipped and most of them are posted to protect the politicians, people of India are the least secure (most vulnerable) people in the world.
- Criminal Investigation:
  - ✓ The important, but badly neglected, aspect of policing is criminal investigation. Standards have declined sharply in the last few years.
- **Human right violations:**
  - ✓ Compensation amount comes from public money, putting no burden on the policeman in question.
  - ✓ Convictions are few. In seven of the 10 years from 2006 to 2015, not a single policeman was convicted of human rights violations.
- Collection and analysis of preventive intelligence:
  - ✓ Especially pertaining to terrorists and insurgents who pose a constant challenge to internal security.
- Vacancies:
  - ✓ Central investigation agencies like the CBI, the National Investigation Agency (NIA) and the Enforcement Directorate continue to have huge vacancies
- Outdated arms and equipments: as seen in 26/11 attacks.
- Lack of proper training.

## Way forward

- Police are to give better security and protection to the people of the country, uphold their human rights and generally improve governance and attending to their grievances is dependent on the establishment of a police force, which is efficient, honest and professional to the core.
- Therefore the PM, at the Guwahati Conference of the Directors General of Police on November 30, 2014, enunciated the concept of SMART Police - a police which should be sensitive, mobile, alert, reliable and techno-savvy.
- Also the reforms package must include the establishment of statutory institutional arrangements,
- Insulating police force from outside illegitimate control and giving them functional autonomy.
- Once the police are given functional independence, they must be held accountable for the wrongs they do

The existing mechanisms of accountability must be strengthened and improved. In addition, new mechanisms, working independently to monitor the functioning of the police and to inquire into public complaints against the police, must be established.

**Internal Accountability Mechanisms:** Police Act of 1861, the state governments' Police Acts and in rules laid down in state Police Manuals.

### **External Accountability Mechanisms**

- *Judiciary*
- *Human Rights Commissions:* holds the police accountable in cases of misconduct.
- *Non-government organizations and Media.*

## 1.4. REVIEW OF STATUS OF NATIONAL PARTY

### Why in news?

- The Election Commission of India (EC) accorded national party status to the All India Trinamool Congress (TMC), making it the seventh party that can contest Lok Sabha and assembly polls across the country on its own symbol.
- Election Symbols (Reservation and Allotment) order was amended.
- TMC fulfilled conditions to qualify as a so-called state party in four states **West Bengal, Tripura, Arunachal Pradesh and Manipur**.

### Recent changes made by ECI

- Under the revised rules of EC, a party's performance over two consecutive Lok Sabha or assembly elections is considered, as opposed to one previously, for granting recognition as a national party.
- The changes have helped other parties that performed badly in 2014 elections to maintain their nation party status.
- The other six are the Bharatiya Janata Party, the Congress, the Bahujan Samaj Party, the Nationalist Congress Party, the Communist Party of India (Marxist) and the Communist Party of India.

### Criteria for becoming national party

A political party shall be eligible to be recognised as a National party if :-

- It secures at least **six percent (6%)** of the valid votes polled in any **four** or more states, at a general election to the House of the People or, to the State Legislative Assembly; **and** in addition, it wins at least **four** seats in the House of the People from any State or States.  
**OR**
- It wins at least **two percent (2%)** seats in the House of the People (i.e., 11 seats in the existing House having 543 members), and these members are elected from at least **three** different States.  
**OR**
- A party has got recognition as a state party in at least four states.

#### Privileges of National Parties

- Unique symbol
- Free airtime on public broadcasters AIR and Doordarshan during the Lok Sabha elections.
- Two free copies of electoral rolls while their candidates need only one proposer to file their nomination papers.
- Deploy 40 star campaigners whose expenditure is not clubbed with the election expenses of an individual candidate.

### What are the benefits of being recognised as national party?

- National party recognition leads to a reserved symbol for its candidates contesting from across the country.
- This is critical for political parties since a large section of voters in the country are illiterate and depend on symbols to identify the party they want to vote for.
- Having a pan-India symbol helps parties reach out to prospective voters.
- Candidates from a national party require only one proposer to file their nominations and are entitled to two sets of electoral rolls free of cost.
- National parties get dedicated broadcast slots on public broadcasters Doordarshan and All India Radio during the general elections.
- A national party can have a maximum of 40 'star campaigners' while a registered unrecognised party can nominate a maximum of 20 'star campaigners', whose travel expenses are not accounted for in the election expense accounts of candidates.

## 1.5. NGOS: NEED OF REGULATORY LAW

### Why in news?

- Supreme Court is to ask the Law Commission of India to bring an effective law to regulate the flow of money to a total 29.99 lakh NGOs functioning in the country.
- The government has clamped down on four American NGOs- Avaaz, Bank Information Centre (BIC), Sierra Club and 350.org. Earlier it had acted against Greenpeace. These events happened in January 2015.
- Recently there was proposal to bring all NGOs under home ministry.

### Necessity

- A Intelligence Bureau report, "Concerted efforts by select foreign-funded NGOs to take down Indian development projects", in 2014 alleged that several foreign-funded environmental NGOs were targeting development projects across the country. This report says **~2% of GDP is lost** due to these activities.
- The CBI records filed in the Supreme Court in the case show that only 2,90,787 NGOs file annual financial statements of a total of 29,99,623 registered ones under the Societies Registration Act. In the Union Territories, of a total of 82,250 NGOs registered and functioning, only 50 file their returns.
- Also NGOs are getting money from all over the world and these may include enemy countries.
- Recently, Supreme Court (SC) voiced its concerns on the NGO becoming a "proxy litigant" and a front for settling corporate rivalry or personal vendetta.

### NGOs argument

- Registration for the FCRA was easy a few years ago, it has now become a lot more stringent.
- Often, the larger NGOs do not face a problem when it comes to funding, but smaller ones does.
- There are several NGOs that exist only on paper. These have given others a bad name too and so the funding has dried up for many sectors

### Way Forward

- Anyone can register a society and it becomes an NGO. So there is a need to form an appropriate law.
- Sensitize all NGOs about compliance of FCRA act and rules when they receive funds from abroad.
- Agencies involved in creating engineered dissent just to influence the polity and economy of India should be selectively handled.
- Issues like misappropriation of funds, lack of transparency and accountability of NGOs need to be addressed to bridge trust deficit between government and civil society.
- All NGOs must respect the law of the land, maintain transparency and remain above board.
- We have to realize that NGOs have become an indispensable tool for social development. This was highlighted in National Policy on Voluntary sector. Success of various SHG initiatives, government schemes and laws such as FRA, CAMPA and processes such as EIA etc., is due to NGOs. So streamlining them will increase their productivity for the nation.

As Presently, Home Ministry monitors foreign funds donated to NGOs and organisations through the **FCRA**. But for **effective monitoring** it wants the Finance Ministry to surrender its powers to monitor NGOs under FEMA as many International donors such as the Ford Foundation, the U.K.'s Department for International Development and Canada's International Development Research Centre are registered under FEMA.

## 1.6. IMPROVEMENT IN RTI

### Why in news?

- The Central Information Commission (CIC) now would function like an e-court with all its case files moving digitally and the applicant being alerted about case hearings through an SMS and email from September 2016.

## New Features in RTI

- Real time updates on filing a complaint or appeal under Right to Information (RTI) Act.
- As soon as an RTI applicant files an appeal or a complaint, he/she would be given a registration number and would get an alert on email and mobile phone about his case and progress.
- The case would then be electronically transferred immediately to the concerned information commissioner's registry electronically.
- CIC has already scanned 1.5 lakh files and converted them into electronic files.
- The Commission would also be able to separate complaints from the appeals.

## Impact of the changes

- Currently, the entire process of RTI takes a few days but after the changes are incorporated entire process would be done within hours.
- This would lead to faster hearings and more convenience.
- The facility would not only benefit the appellants but also information commissioners in quickly disposing off the cases.
- The changes could facilitate hearing of multiple appeals of the same person on a given day.
- It would directly impact in reducing pendency as more cases would be disposed in a day.

## 1.7. SC DECISION ON SINGUR LAND PROJECT

### Why in news?

- The Supreme Court recently held that the land acquisition in Singur project **could not be said to be for a "public purpose"** and hence the land should be remitted back to farmers within 12 weeks.

### Timeline of the issue

- **In 2006** it was announced that Tata would setup a car manufacturing unit to roll-out its Nano model for which close to 1000 acres of land would be allocated.
- **In 2008**, government acquired 997 acres of land in Singur, 40km from Kolkata, under the Land Acquisition Act 1894, under **"eminent domain principle and urgency clause"** for Tata Motors to build the Nano factory.
  - ✓ Massive demonstrations were held against the forcible land acquisition proposed for the project.
  - ✓ It became controversial because it was prime arable land that was forcibly acquired by the West Bengal government.
- **In 2008**, Calcutta high court upheld the acquisition of the land, holding it to be in the interest of the public and for public purpose. The Tatas moved the Nano project from West Bengal to Gujarat in the meantime to avoid judicial hassles.
- **In 2016**, the Supreme Court in an appeal overturned the decision and has ordered to return the acquired land to farmers in 12 weeks.

#### 'Eminent domain principle'

Eminent domain is the right or power of a sovereign state to take private property for public use without the owner's consent, after payment of just compensation.

### Impact of the verdict on future land acquisition

- Although, this is a one off case and may not impact on a large scale in India but still its unclear if it will have detrimental effect on land acquisition and development in India.
- Supreme Court verdict gives emphasis on protecting individuals' rights than development.
- The potential land reform amendments to make it easier for the government and companies to acquire land could meet even greater resistance now.
- The decision sets a precedent that land has to be acquired for public purpose and benefit and has to be proved.



## 1.8. BAN ON SHARING AADHAAR DETAILS

### Why in news?

- The Union Government has banned agencies in possession of Aadhaar number to publish or post the information publicly to ensure that the details are not misused.
- The Unique Identification Authority of India (UIDAI) issued notification under the Aadhaar (Targeted Delivery of Financial and other Subsidies, benefits and services) Act, 2016 regarding the same.
- The core biometrics that are fingerprints and iris scan along with bank details, form important sensitive information in Aadhaar.

### Key takeaways

- The agencies under possession of Aadhaar details will have to **ensure security and confidentiality** of the 12-digit identification number.
- The biometric information collected by UIDAI **cannot be shared with anyone** for any reason whatsoever.
- The agencies will also have to inform Aadhaar holders the purpose for which their details will be used.
- Penalty has been prescribed for offences such as impersonation of the Aadhaar holder at time of enrolment, tampering with data and disclosing identity information under the Aadhaar act.

## 1.9. WEB RESPONSIVE PENSIONER'S SERVICE PORTAL

### Why in News?

- Finance Minister launched a new **Digital India** initiative, the Web Responsive Pensioner's Service Portal undertaken by the office of Controller General of Accounts.

### What is it?

- This portal will help pensioner's access information relating to status of pension cases, and pension payments processed by Central Ministries/Departments and Banks.
- This portal will also serve as an effective platform for grievance redressal.
- It has been developed by the Central Pension Accounting Office.



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## 2. INTERNATIONAL /INDIA AND WORLD

### 2.1. 17TH SUMMIT OF THE NON ALIGNED MOVEMENT (NAM)

#### Why in news?

- The 17th Summit of the Non-Aligned Movement (NAM) took place in Margarita, Venezuela.
- India was represented by Vice President and not by the head of government (Prime Minister) as the usual practice.
- Only once before, the Indian Prime Minister had not been to the NAM Summit at Havana (Cuba) in 1979 under the caretaker government of Prime Minister Charan Singh

#### Highlights of Vice President address at summit

- **Anti-terrorism Push:**
  - ✓ India echoed for "concrete action" to fight against terrorism and asked the 120-nation group to set up a mechanism to ensure effective cooperation in combating the menace.
  - ✓ Vice President called terrorism as one of the "most egregious sources of human right violations today" and condemned its use as an instrument of state policy.
- **UN reform**
  - ✓ Vice President strongly flagged the issue of UN reforms. He urged for use the forthcoming 71st UNGA to ensure that discussions in the Inter-Governmental Negotiations move forward.
  - ✓ Noting that the global landscape has changed since 1961, when NAM was formed, Vice President stressed that the values and principles on which the foundations of the movement, namely
    - "respect for sovereignty"
    - "peaceful settlement of disputes" and
    - "international cooperation" — are as relevant today as they were at the time of the first summit.
- **Sustainable development**
  - ✓ He urged member states to ensure wholehearted and holistic implementation of the SDGs and remain attentive to any effort to modify or distort Agenda 2030.
  - ✓ He called Sustainable development as the bedrock and the highest aspiration of NAM countries' efforts.
- **Peace and sovereignty**
  - ✓ He asserted that peace and sovereignty are a prerequisite for development; a peaceful global environment is essential for development and for development cooperation.

#### Non Aligned Movement (NAM)

- It was founded in September 1961. At present NAM have 120 member countries and 17 observer countries.
- The idea of NAM was jointly conceived by **India's** Prime Minister Jawaharlal Nehru, **Indonesia's** President Sukarno, **Egypt's** President Gamal Abdel Nasser, **Ghana's** President Kwame Nkrumah and **Yugoslavia's** President Josip Broz Tito.
- The first non-alignment summit was held in Belgrade in 1961.
- **NAM Policy and ideology-**
  - ✓ Push for an alternative economic order
  - ✓ Campaign against the arms race that had put the fear of nuclear annihilation across the planet.
  - ✓ It was also conceived as the voice of the former colonies and poor nations in a world overwhelmingly dominated by the rich western nations.

#### Post-Cold War world Transition in NAM

Over the course of the past 60 years, the NAM has seen an erosion of its authority.

- The Third World debt crisis of the 1980s crushed the economic ambitions of NAM states.
- **Unipolar world:** The Soviet Union collapsed, the U.S. bombed Panama and Iraq, and history seemed to end with American ascendancy.
  - ✓ By the early 1990s, several important powers of NAM began to back away (Argentina left in 1991). Yugoslavia crumbled, with war tearing apart its promise.
  - ✓ India went to the IMF and gestured to the U.S. that its days of non-alignment had gradually come to a close. NAM oscillated between suspicion of U.S. motives and attempts to regenerate the economic engines of its members.
- **No binding principles:** NAM does not have any binding principles and that it is a marriage of convenience among disparate countries. Contrary to the image of a cohesive movement seeking to challenge the

dominance of the imperialist powers, it was hard to find agreement among the founding leaders on the purpose and objectives of NAM.

- **Division within NAM:** The Iran-Iraq war, the Soviet occupation of Afghanistan, the Vietnamese intervention in Cambodia, and the military support to national liberation movements in Southern Africa and Central America had deeply divided the NAM.

### Importance/Relevance of NAM

- NAM acts as catalyst to foster the **co-operation between south -south nation**.
- NAM is particularly important **in elections at the UN**, including the possible identification of new permanent members of the Security Council. In fact, it was through NAM that we operated to counter the efforts to expand the UN Security Council by including just Germany and Japan as permanent members.
- No NAM country may agree to isolate Pakistan, but the NAM forum will be an effective **instrument to project our anti-terrorist sentiments**. NAM has the potential to act as a strong movement against international terrorism. NAM therefore must continue to live as the movement of the developing countries engaged in the pursuit of international peace, security, and development.
- NAM today, like the Commonwealth has always been, is a **heritage we need not discard**.
- The very informal nature of NAM permits members to operate individually. It also has the facility of members reserving their positions, as we did on the non-proliferation positions of NAM.

### To conclude

Politics of the Third World has successfully influenced the thematic setting of the global agenda. Today North-South relations and the issues connected with the development of countries of the South have become one of the main inertia systems of our global world, and in formulating potential answers to global challenges. There is an ever increasing need for non-alignment in the sense of alliance formation and concerted efforts to make the existence of the NAM "no less necessary than before." What we need to do is to strengthen the movement with new hopes and new challenges as per 21st century.

## 2.2. INDIA-ASEAN

### Why in News?

Prime Minister Narendra Modi attended the 14th Asean-India Summit and 11th East Asia Summit in Vientiane, the capital of Laos.

**History and Evolution of the India-ASEAN Relations** after its Independence in 1947, India followed a policy of **Non-Aligned Movement (NAM)** and became a champion of decolonisation, including in Southeast Asia. However, during the 1970s, India's perceived tilt towards the Soviet Union led Southeast Asia to drift away from India as both followed different economic and political ideologies.

- In a major shift away from policies of the Cold War era, India adopted the **"Look East Policy" (LEP)** soon after economic liberalisation in 1991 to increase economic and commercial ties with East and Southeast Asian nations such as China. Over the years the policy has also concentrated on building closer ties on the strategic and security aspects in the region.
- Phases of LEP-
  - ✓ **Phase I** lasted between 1991 and 2002, when the primary thrust was **toward renewed political and economic relations** with ASEAN countries.
  - ✓ During **Phase II** (2003 to 2012), the scope of the LEP was broadened to include China, Japan, South Korea, Australia, and New Zealand.
  - ✓ The new phase of LEP would focus on **extensive economic and security issues**, including joint efforts to protect the **Sea Lanes of Communications** and launch **coordinated counter-terrorism activities**.

#### Why is it important?

These summits are important for both Asean members and India because issues like maritime security, terrorism and other matters of regional and international interests were discussed at a time when China was involved in a raging dispute with the Philippines, Vietnam, Taiwan, Malaysia and Brunei over ownership of territory in the South China Sea.

- One of the major consequences of India's engagement with ASEAN has been the **ASEAN-India Free Trade Agreement (AIFTA)**, which was seen as an essential step towards deeper economic integration.
  - ✓ Its initial framework was signed on 8 October 2003 in Bali, Indonesia and the final agreement was signed on 13 August 2009, coming into effect from 1 January 2010.
  - ✓ The FTA reduced tariff barriers to trade between India and the ASEAN countries, and included specific provisions for services trade and investment facilitation.
- India was accorded full **ASEAN Dialogue Partner Status in 1995**, followed by its membership in the ASEAN Regional Forum. The India-ASEAN Relations soon broadened its cooperation into political as well as security arenas. India also joined the East Asian Summit (EAS) in 2005.
- ASEAN has been a **strategic partner** of India since 2012. India and ASEAN have 30 dialogue mechanisms which meet regularly.
- India's engagement with the ASEAN and wider Asia-Pacific region has acquired further momentum following the enunciation of the '**Act-East Policy (AEP)**' at the 12th ASEAN-India Summit and 9th East Asia Summit in Myanmar in November 2014.
- Under the AEP, India not only expected to bolster its economic engagements with the region; it yearned to emerge as a **potential security balancer as well**.
- **Commerce, Culture and Connectivity** are the three pillars of India's robust engagement with ASEAN.
- Enhancing the connectivity in all its dimensions – physical, digital, economy, institutional and cultural- has been at the heart of India's strategic partnership with ASEAN.

### Importance of ASEAN for India

- **Economically:** India is one of the strategic partners of ASEAN. With a total population of 1.8 billion and a combined GDP of \$3.8 trillion, ASEAN and India together form an **important economic space** in the world.
- **Geopolitically**
  - ✓ India expects to benefit geopolitically as well from its rejuvenated affinity with ASEAN and other regional countries.
  - ✓ India has attempted to demonstrate its ability to play a dynamic role in the region. India sent a strong signal to China by mentioning the importance of maintaining freedom of navigation in the **South China Sea**.
- **Maritime Importance: Freedom of navigation in the South China Sea** is essential for India in order to ensure that its sea-bound trade continues uninterrupted.
  - ✓ Sea lanes are "life lines of global trade." India supports freedom of navigation based on United Nations Convention on the Law of the Sea (UNCLOS).
  - ✓ ASEAN is important for extending cooperation in areas such as maritime security including freedom of navigation, drug trafficking and cybercrime.
- **Security Aspect:** There are diverse areas on which India and ASEAN are jointly working, e.g. non-traditional security threats such as terrorism, human and drug trafficking, cybercrimes and piracy in the Malacca Straits, etc.
- **Connectivity Aspect**
  - ✓ The envisaged highway (under construction) and rail connectivity to energy giants like, Nepal and Myanmar and further to Thailand, will improve people to people contact, thus enhancing the sphere of economic cooperation and interdependence.
  - ✓ The highly underdeveloped NE States of India, which lie at the gateway to a region offering unlimited economic opportunities, will witness an economic transformation.
- **Energy security**
  - ✓ ASEAN countries, particularly Myanmar, Vietnam and Malaysia can potentially contribute to India's energy security.
  - ✓ Oil and natural gas deposits in the South China Sea region.

#### East Asia Summit (EAS)

- The East Asia Summit is the premier leaders-led forum in the Asia-Pacific. Since its inception in 2005, it has played a significant role in the strategic, geopolitical and economic evolution of East Asia.
- Apart from the 10 ASEAN Member states, East Asia Summit includes India, China, Japan, Republic of Korea, Australia, New Zealand, United States and Russia.
- India, being a founding member of the East Asia Summit, is committed to strengthening the East Asia Summit and making it more effective for dealing with contemporary challenges.

## Trade relation with ASEAN

- Trade between India and ASEAN stood at US\$ 65.04 billion in 2015-16 and comprises 10.12% of India's total trade with the world.
- The ASEAN-India economic integration process has got a fillip with the creation of the ASEAN-India Free Trade Area in July 2015, following the entry into force of the ASEAN-India Trade in Services and Investment Agreements.
- Conclusion of a balanced Regional Comprehensive Economic Partnership (RCEP) Agreement will further boost our trade and investment ties with the region.

## Important Issues Highlighted by PM Modi during the EAS

The two most significant issues highlighted by PM Modi during his address at EAS were: Recommending strongest action against those states that use terrorism as an instrument of state policy and outlining India's principled stand on the South China Sea issue.

- PM Modi commented that most countries in the South Asian region were pursuing a peaceful path to economic prosperity "But, there is one country in **India's neighbourhood whose competitive advantage rests solely in producing and exporting terrorism.**"
- For India's principled stand on the South China Sea issue, he said that the lanes of communication passing through the sea were "**main arteries of global merchandise trade**".
- India supports freedom of navigation and over flight, and unimpeded commerce, based on the principles of international law, as reflected notably in the UNCLOS.

## 2.3. INDIA-VIETNAM

### Why in news?

Indian Prime Minister Narendra Modi's recent visit to Vietnam marked an important step forward in their ties. During Modi's visit, the two countries decided to upgrade their relationship from a "**strategic partnership**" to a "**comprehensive strategic partnership**."

### Outcomes of the Visit

- India and Vietnam signed 12 agreements in a wide range of areas covering defence, IT, space, double taxation and sharing white shipping information, signalling a strong upward push in their strategic ties.
- **Defence Agreement:** India extended \$500 million Line of Credit to Vietnam for facilitating deeper defence cooperation with the south East Asian nation, as the two countries elevated their ties to a Comprehensive Strategic Partnership to respond to emerging regional challenges.
- India had offered earlier \$100 million in 2013 to Vietnam to buy defense hardware. Though both countries have been negotiating the sale of **BrahMos missiles** (jointly produced by India and Russia), no decision was taken on the issue during this latest visit.

### Trade and investment

- The bilateral trade between two countries is around \$ 8 billion; it has grown 400 per cent in the last six to seven years. Both sides have agreed on a new trade target of US\$ 15 billion by 2020.
- India has 93 projects in Vietnam with total investment of about US\$ 1 bn.
- Vietnam has three investment projects in India with total investment of US\$ 23.6 million.

### South China Sea conflict

- India and Vietnam called for "peaceful" resolution of the South China Sea issue and "exercise self-restraint."
- They also urged all parties to show "utmost respect" for the United Nations Convention on the Law of the Sea (UNCLOS).

### Vietnam's Importance for India

- Vietnam is an important element of India's Act East Policy, which aims to re-invigorate its historical ties with countries in Southeast and East Asia.
- **Connectivity:** In the future, the India-Myanmar-Thailand trilateral highway could link up with already existing roads like the one linking Thailand with the Vietnamese port of Da Nang.

- Vietnam is also an important partner for India's engagement in the ASEAN being the coordinator country for India-ASEAN ties for 2015-2018.
- **Strategic location:** Vietnam is located at a strategically important place and operates as "the gate" to enter Southeast Asia from north.
- India's relations with Vietnam are marked by growing economic and commercial engagement. India is now among the top ten trading partners of Vietnam.
- India's growing economy needs energy resources and Vietnam has rich hydrocarbon reserves, for example ONGC had been given two exploration blocks originally (Block 127 and Block 128 in 2006).

#### India's Importance for Vietnam

- India could be a bulwark against the dominance of any single country in the region. Hanoi has a long-festering territorial dispute with Beijing in the South China Sea.
- Indian companies can infuse much needed capital and technology into the Vietnamese market to bring it to par with its East Asian counterparts.
- There is the strong cultural aspect to the relationship, with Buddhism seeping into Vietnam from the land of its birth in India. Vietnam has a large number of Buddhists and many of them come to visit Buddhist holy shrines in India.
- Spirituality has given a fresh and interesting aspect to India-Vietnam relationship. With the resurgence of Buddhism in Vietnam, the country has found a deep connect with India, home to Buddhism.

## 2.4. MIGRANTS AND REFUGEES

### 2.4.1. NEW YORK DECLARATION ON MIGRANTS AND REFUGEES

#### Need for Declaration

- The world is faced with more than 21 million refugees, almost 41 million internally displaced, 3.2 million asylum seekers and increasing flows of mixed migrants caused by conflict, repression and poverty.
- This grave trend is further fueled by climate change and the disasters and pressure on resources they leave behind. Such incidences have led to the New York Declaration.

#### Aim of the Declaration

- it expresses the political will of world leaders to save lives, protect rights and share responsibility on a global scale.
- The declaration aimed at providing a more coordinated and humane response to the refugee crisis that has strained resources and sparked divisions from Africa to Europe.

#### What are the commitments?

The New York Declaration contains bold commitments both to address the issues we face now and to prepare the world for future challenges. These include commitments to:

- Protect the **human rights** of all refugees and migrants, regardless of status. This includes the rights of women and girls and promoting their full, equal and meaningful participation in finding solutions.
- Ensure that all refugee and migrant children are **receiving education** within a few months of arrival.
- Prevent and respond to sexual and **gender-based violence**.
- Support those countries rescuing, receiving and hosting large numbers of refugees and migrants.
- Work towards ending the practice of detaining children for the purposes of determining their migration status.
- Strongly condemn **xenophobia against refugees** and migrants and support a global campaign to counter it.
- Strengthen the positive contributions made by migrants to economic and social development in their host countries.

#### Refugees

- According to the UN Refugee Agency, refugees are people forced to flee due to armed conflict or persecution, while migrants choose to move in search of a better life.
- Around the world, there are currently about 21.3 million refugees, 3.2 million asylum seekers, and 40.8 million migrants.



- Improve the delivery of humanitarian and development assistance to those countries most affected, including through innovative multilateral financial solutions, with the goal of closing all funding gaps.
- Implement a comprehensive refugee response, based on a new framework that sets out the responsibility of Member States, civil society partners and the UN system, whenever there is a large movement of refugees or a protracted refugee situation.
- Find new homes for all refugees identified by UNHCR as needing resettlement; and expand the opportunities for refugees to relocate to other countries through, for example, labour mobility or education schemes.
- Strengthen the global governance of migration by bringing the International Organization for Migration into the UN system.
- **No binding commitments:** The declaration has no concrete commitments and is not legally binding but rather calls on countries to protect refugees' human rights, boost humanitarian aid and increase resettlement of refugees.

## 2.4.2. UNICEF REPORT ON REFUGEES

### Why in news?

The United Nations Children's Fund (UNICEF) on 7 September 2016 released the report titled *Uprooted: The growing crisis for refugee and migrant children*.

### Key findings

- According to the report, nearly 50 million children have been uprooted across the globe and millions more migrating in the hope of finding a better, safer life.
- Traumatized by the conflicts and violence they are fleeing, they face further dangers including
  - ✓ the risk of drowning on sea crossings,
  - ✓ malnourishment,
  - ✓ trafficking,
  - ✓ rape and even murder
- In countries they travel through and at their destinations, they often face xenophobia and discrimination.
- 1 in 200 children in the world is a child refugee.
- Nearly 1 in 3 children living outside their country of birth is a refugee
- Child refugees has increased by two times from 2005 to 2015.
- Regional perspective:
  - ✓ Asia is home to 2 in 5 of the world's child migrants

### International protocols

- Convention on the Rights of the Child (1989)
- Convention relating to the Status of Refugees (1951) and Protocol (1967)
- Protocol against the Smuggling of Migrants by Land, Sea and Air (2000)
- International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families (1990).

Many countries are yet to ratify these which will strengthen protections to these refugees.

### Six specific actions to protect refugee and migrant children

- Protecting child refugees and migrants, particularly unaccompanied children from exploitation and violence.
- Ending the detention of children seeking refugee status or migrating by introducing a range of practical alternatives.
- Keeping families together as the best way to protect children and give children legal status.
- Keeping all refugee and migrant children learning and giving them access to health and other quality services.
- Pressing for action on the underlying causes of large-scale movements of refugees and migrants.
- Promoting measures to combat xenophobia, discrimination and marginalization.

## 2.5. INDIA-EGYPT

### Why in News?

Egyptian President Abdel Fattah el-Sisi paid official visit to India.

### Outcomes of the Visit

#### Political and Security Cooperation

- Declaration of a **"robust defence and security partnership"** is likely to further energise the Joint Defence Cooperation which was set up in 2006 and has held six meetings so far.
- The two leaders highlighted the leading role of India and Egypt in the maintenance of **international peace and security**, being among the ten largest troop and police contributing countries in United Nations missions.
- **Fighting terrorism** has been identified as an important issue for both India and Egypt as they are concerned with the growing menace of the Islamic State (IS).
- The two leaders affirmed their commitment to achieve a **comprehensive reform of the United Nations**, including the revitalization of the General Assembly as the only universal organ representing all member states.
- The two leaders strongly **condemned terrorism** in all its forms and manifestations. They also reaffirmed their resolve to work together at UN on concluding the **Comprehensive Convention on International Terrorism (CCIT)**.
- To tackle **the challenges of adverse impacts of climate change**, the two leaders highlighted the importance of a global approach based on the principles and provisions of the United Nations Framework Convention on Climate Change (UNFCCC) and its Paris Agreement in particular the principles **of Equity, and the Common but Differentiated Responsibilities (CBDR)**.
- Both leaders emphasized that enhanced support from developed countries to developing countries and the provision of adequate, predictable and sustainable means of implementation in particular **finance, technology transfer and capacity building** is a corner stone for the realization of the globally agreed commitments to tackle climate change.

#### Trade and Investment

- India and Egypt vowed to take their economic and trade ties to the next level. Both countries have set a bilateral trade target of \$8 billion in the near future from the current \$3 billion.
- There are currently 52 Indian companies operating in Egypt of which 25 are joint ventures with a total investment of \$3 billion across a wide range of sectors.
- As a \$286-billion economy with around 89 million consumers, which is the second largest in Africa, Egypt has tremendous potential as an economic partner.
- President Al-Sisi invited Indian participation in the Suez Canal Economic Zone, particularly in sectors such as petro-chemicals, energy, agriculture, healthcare, education, skills and IT.

#### Agreement on Maritime Transport

- India and Egypt signed an agreement on Maritime Transport. The agreement would help the two nations to step-up co-operation on the seas not only in terms of maritime commerce but also in transit of naval vessels.

#### Cultural exchange

- Cultural exchange is another vital aspect of our excellent bilateral relations.
- The two leaders agreed that a special and enlarged **"India by the Nile Festival"** would be held in 2017 to commemorate the 70th anniversary of India's independence. They also welcomed the proposal to have the inaugural **"Egypt by the Ganga Festival"** in 2017.



## 2.6. INDIA-PAKISTAN

### Why in News?

In the wake of the Uri attack, several experts have demanded that India withdraw from the Indus Waters Treaty and also MFN status to Pakistan.

### Indus Water Treaty (IWT)

The Indus Waters Treaty was signed on September 19, 1960 by the then Prime Minister Jawaharlal Nehru and Pakistan's President Ayub Khan.

- The 1960 treaty for the Indus and five tributaries flowing from India to Pakistan was brokered by **the World Bank (then, the IBRD)**, and has held through wars and conflicts along the Line of Control.
- The treaty administers how river Indus and its tributaries that flow in both the countries will be utilized.
- According to the treaty, **Beas, Ravi and Sutlej are to be governed by India, while, Indus, Chenab and Jhelum are to be taken care by Pakistan.**
- However, since Indus flows from India, the country is **allowed to use 20 per cent of its water** for irrigation, power generation and transport purposes.
- **A Permanent Indus Commission** was set up as a bilateral commission to implement and manage the Treaty. The Commission solves disputes arising over water sharing.
- The Treaty also provides arbitration mechanism to solve disputes amicably.
- Though Indus originates from Tibet, China has been kept out of the Treaty. If China decides to stop or change the flow of the river, it will affect both India and Pakistan.
- Climate change is causing melting of ice in Tibetan plateau, which scientists believe will affect the river in future.
- Both India and Pakistan are still at loggerheads over various issues since Partition, but there has been no fight over water after the Treaty was ratified.

### Review of IWT

In the wake of the Uri attack, several experts have demanded that India withdraw from the Indus Waters Treaty whose terms are considered generous to Pakistan. However, officials made it clear that the IWT will hold, at least for the moment. Instead, the Centre drew up a list of measures to optimize use of the Indus waters that India has so far failed to do.

- The Union government has decided to set up an inter-ministerial committee to study India's further options on the Indus Waters Treaty.
- The government also decided to build more run-of-the-river hydropower projects on western rivers, to exploit the full potential of 18,600 MW (current projects come to 11,406 MW).
- A decision was taken to review restarting the Tulbul navigation project that India had suspended after Pakistan's objections in 1987.

### If India revokes IWT

- Revoking it would threaten regional stability and India's credibility globally.
- It remains unclear what India intends to do with the "western" rivers in question beyond the short-term plan to irrigate Jammu and Kashmir's fields better.
- Dams required holding the course of the tributaries of the Indus to alter water levels to Pakistan dramatically would take more than a decade to build.
- Given the environmental and geopolitical consequences of such actions, they are unlikely to elicit any international funding.
- Stopping the waters of the Indus rivers can be counterproductive also
  - ✓ India has water-sharing arrangements with other neighbours as well. Not honouring the Indus Treaty would make them uneasy and distrustful.
  - ✓ India would lose her voice if China, decides to do something similar.

### Most Favoured Nation (MFN)

- Most Favoured Nation is a treatment accorded to a trade partner to ensure non-discriminatory trade between two countries vis-a-vis other trade partners. Under WTO rules, a member country cannot discriminate between its trade partners. If a special status is granted to a trade partner, it must be extended to all members of the WTO.
- While India has given the status to Pakistan back in 1996, it has not reciprocated by doing the same till date.
- Bilateral trade between the two nations was just \$2.6 billion in 2015-16 (of which \$2.2 billion constituted India's exports to Pakistan) — which represented a minuscule 0.4 per cent of India's overall goods trade worth \$643.3 billion in the same year.
- Therefore, even if India revokes the MFN status, it would only have a **“symbolic” impact**.

## 2.7. SAARC SUMMIT

### Why in News?

In the wake of the Uri attack, Indian government has launched diplomatic offensive to isolate Pakistan internationally and in its neighbourhood.

- India has decided to pull out of the SAARC summit in Islamabad this November, with Afghanistan, Bhutan and Bangladesh deciding to follow suit.
- The decision is unprecedented as this is the first time that India has cancelled participation in the regional group's summit meeting because of actions that it blames on Pakistan-based elements.
- As per Experts, India's cancellation might handicap economic integration in South Asia.

### 'SAARC minus Pakistan'

By pulling out of the SAARC summit in Islamabad, the government is trying to achieve two ends: sending a tough message in the wake of the **Uri attack**, but also that it is going ahead with its plan for 'SAARC minus Pakistan' instead.

- Since the previous Nepal summit, Pakistan has blocked all protocols to better link the region, while India has pursued a “SAARC minus Pakistan” plan to push through with agreements it is keen on.
- Motor vehicle movement agreement, railway linkages, and the SAARC satellite programme for which all SAARC countries apart from Pakistan have signed up.
- With Afghanistan, which cannot be accessed by land, the two governments have discussed a separate “air corridor” for cargo.
- A bigger articulation of that vision is expected in mid-October, when India hosts **the BIMSTEC outreach summit** on the sidelines of the BRICS summit in Goa.
- Another grouping of India, Bangladesh, Bhutan, Maldives, Nepal, and Sri Lanka met for the **South Asia Sub-regional Economic Cooperation (SASEC) programme** in Delhi to release the first SASEC Operational Plan 2016-2025.
- SASEC's lead financier, the Asian Development Bank (ADB), has already approved about 40 infrastructures and IT projects worth about \$7.7 billion.

### Pakistan's line of action

- Pakistan continues to receive support from several other countries outside of the SAARC, most notably China, and also has a new relationship with Russia that conducted its first-ever military exercises in Pakistan just days after the Uri attack. Iran too sent four naval warships to the Karachi port to participate in a Passage exercise (PASSEX).

### Way forward for India

An economic union is the order of the day. If India has to achieve its global desires to be an economic power, she has to get into the driver's seat and create an environment which provides opportunities and not just veto them for security concerns.

## 2.8. INDIA-AFGHANISTAN

### Why in News?

Afghanistan President Ashraf Ghani paid official visit to India. During the visit following agreements have been signed between two countries.

- India and Afghanistan signed an Extradition Treaty to facilitate exchange of wanted terrorists and criminals.
- The two sides also sealed agreements on peaceful uses of outer space and on cooperation on civil and commercial matters
- India also extended a \$one-billion for 'capacity and capability building' in areas such as education, health, agriculture, skill development, empowerment of women, energy, infrastructure and strengthening of democratic institutions.
- India also offered Afghanistan affordable pharmaceutical products and medicines.

## 2.9. APTTA (AFGHANISTAN-PAKISTAN TRANSIT TRADE AGREEMENT)

The **Afghanistan–Pakistan Transit Trade Agreement** (also known as **APTTA**) is a bilateral trade agreement signed in 2010 by Pakistan and Afghanistan that calls for greater facilitation in the movement of goods amongst the two countries.

- The 2010 APTTA allows for both countries to use each other's airports, railways, roads, and ports for transit trade along designated transit corridors.
- The agreement does not cover road transport vehicles from any third country, be it from India or any Central Asia country.
- The APTTA agreement allows Afghan trucks to transport exports to India via Pakistan up to the Wagah crossing point, but does not offer Afghanistan the right to import Indian goods across Pakistani territory.

### Issues with APTTA

Far from being a unifier, the APTTA itself has become a point of deep discord.

- Bitter India-Pakistan relations mean Afghan trucks carrying perishable fruit face long delays on both sides of the border where they must be loaded and unloaded, often more than once.
- Pakistan has rejected the demand voiced by Afghan President Ashraf Ghani that India be made a party to its transit trade pact with Kabul
- India's External Affairs Minister had at the last Heart of Asia ministerial conference in Islamabad expressed India's wish to join the Afghanistan-Pakistan Trade and Transit Agreement (APTTA).

### Separate trade routes

India, Pakistan and Afghanistan are moving at a furious pace to cut one another out of the trade equation.

- India is working on a corridor via Iran's Chabahar port, where goods will go up the land route and connect to the Zaranj-Delaram Highway without touching Pakistan.
- Pakistan will connect directly to China through the small strip through PoK and Gilgit-Baltistan once the China-Pakistan Economic Corridor is ready, avoiding both India and Afghanistan.
- Afghanistan too is assiduously cultivating its options to the north, and its position in China's One Belt, One Road plans.

## 2.10. G-20 SUMMIT

### Why in News?

11th G20 Summit was held in Hangzhou, China. The theme of the Summit was **"Toward an Innovative, Invigorated, Interconnected and Inclusive World Economy"**.

## Highlights of G20 Summit

- Leaders of G20 economies have made substantial achievements on **development issues including consensus to advance anti-corruption campaign** and set up a research centre in China on fugitive repatriation and asset recovery.
- **Sustainable Development**
  - ✓ For the first time, the summit put the issue of **development front and centre of the global macro policy framework**, constituted an action plan to facilitate the implementation of the **2030 Agenda for Sustainable Development** and **supported** the industrialisation of African countries and least developed countries collectively.
- **Hangzhou Consensus**
  - ✓ “**Hangzhou Consensus**” calls on the G20 to deliver more inclusive economic growth through **co-ordinated macroeconomic policy, open trade and innovation**. In short, it reaffirms the group’s core mandate: to make globalisation work for the benefit of all.
- **International tax avoidance**
  - ✓ Numerous low-key objectives shared by multiple G20 members, such as strengthening enforcement against **international tax avoidance and advancing cooperation on Base Erosion and Profit Shifting**.
- **Climate change**
  - ✓ Despite pressure from the US and China, the final G20 communique has skipped any mention of the **December 2016 deadline for member-countries to ratify the Paris Agreement on climate change**.
  - ✓ It has also avoided specifying a date for ending fossil fuel subsidies.
- Among the major issues that found mention in the summit was the question of excess steel capacity in China resulting in a flood of cheap imports into India, the U.K. and other economies.
- Little real progress was made on key issues of climate change and energy.
- Other challenges that consumed the attention and energy of leaders on the sidelines, including co-ordinated responses to the **Syrian crisis, refugees, terrorism and migration, remain unresolved**.

### G-20

- The G20 started in 1999 as a meeting of Finance Ministers and Central Bank Governors in the aftermath of the Asian financial crisis.
- The Group of Twenty (G20) is the premier forum for its members' international economic cooperation and decision-making. It comprises 19 countries plus the European Union.
- G20 represents 85% of global GDP, 80% of international trade, 65% of world's population.
- In 2008, the first G20 Leaders' Summit was held, and the group played a key role in responding to the global financial crisis.

## 2.11. REGIME CHANGE IN BRAZIL

Brazil's Dilma Rousseff was stripped of the country's presidency in a Senate impeachment vote, ending 13 years of leftist rule in Latin America's biggest economy.

### Reasons for Rousseff's Impeachment

- Ms. Rousseff's popularity has eroded fast over the last year with a deepening economic crisis and a spreading **corruption scandal**, in which several of her Workers Party (PT) leaders have been implicated.
- Some of the measures she took, such as **cutting public expenditure to control deficit**, were counter-productive as they drove the PT's traditional base, the working people, away from her.

### Economic crisis

- Brazil's economy is going through its worst recession in more than three decades following a drop in prices for Brazilian commodities such as oil, iron ore and soya.
- In 2015, the economy shrank by 3.8%, its worst annual performance since 1981.
- Inflation reached 10.7% at the end of last year, a 12-year-high.
- Unemployment increased to 9% in 2015 and economists predict it could go into double figures in the coming months.

## Impact of impeachment

- The impeachment is likely to deepen **Brazil's political crisis** at a time when the country needs a stable administration to cope with the enormous challenges it faces, especially the current economic crisis, and chronic corruption.
- The impact of the Brazilian political crisis on global politics has been damaging because the world needs the contribution of the region's largest country.
- Geographically and politically, Brazil has to be the axis around which its predominantly Spanish-speaking neighbours must turn and coordinate their policies.
- Russia, China and India have strengthened their politico-economic bilateral relations with Brazil considerably in recent years, and will be fearful of what the future may hold.
- Due to leadership crisis first in South Africa and now in Brazil, the efficacy of BRICS, IBSA and BASIC has become precarious.

## 2.12. RUSSIA-PAKISTAN

### Why in News?

Pakistan-Russia conducted first-ever joint military drills dubbed '**Friendship—2016**' in Pakistan. Reflecting growing military ties between the two former Cold War rivals.

### Concerns for India

- Joint military exercise held at a moment when India was trying to isolate Pakistan after the Uri attacks, coping with fresh political violence inside Kashmir, and drawing international attention to India's claims over Gilgit-Baltistan.
- That Russia was unwilling to postpone these exercises in deference to Indian sensitivities at this critical juncture suggests something fundamental is at work in Moscow's approach to the Subcontinent.
- The joint drill is seen as another step in growing military-to-military cooperation, indicating a steady growth in bilateral relationship between the two countries.
- A Russian-Pakistani renaissance started in 2014 when the Kremlin removed its arms embargo against Islamabad.
- In 2015, Moscow agreed to sell four Mi-35M helicopters to Pakistan and welcomed Islamabad to join the Shanghai Cooperation Organization (SCO).

### Change in Russia's strategy

Under President Vladimir Putin, Russia has shown assertiveness in international affairs.

- It has taken a clear position on opposing Western intervention and militarist regime-change policies in Iraq and Libya and now in Syria.
- Russia has used counter-force in the fight against the Islamic State in backing Syrian President Bashar al-Assad.
- It retook the province of Crimea that it had gifted Ukraine in 1954 due to (Soviet) historical reasons. This invited unilateral sanctions on Russia from the U.S. and the European Union.
- Demonised by the West, Russia has become a strategic partner of China and they have significant convergence of interests.
- Russia dependent on arms and energy exports is constantly looking for new markets and Pakistan is a potential one. The planned exercises were an extension of this search.

### India's policy shift

India as an emerging power has developed a strategic partnership with the U.S. There are **real and perceived shifts in Indian armament policies** where Russia dominated for years.

- India has opened up to the U.S., France, and Israel, all of whom are gradually edging out the Russians in some sectors. The Kremlin has grown cautious lately about India's augmenting defense cooperation with the United States and other Western nations.
- Russia-India trade has not grown to great heights despite the encouragement of both states. Yet India has been supportive of Russian positions and has a careful and calibrated response to all Russian actions — in Chechnya, Syria, Ukraine and elsewhere, India has supported Russia. The Russians, on their part, have dutifully backed the Indian position on Kashmir.
- The greatest weakness is the lack of an **economic relationship that encompasses** the Indian private sector. India's odd defence purchase and equity stake in a Siberian oil or gas field are substitutes for rather than the basis of a strategic relationship.
- India has its own military exercises with the U.S. and has signed logistics agreements which can eventually give the U.S. access to Indian naval bases.

#### Way forward

- The military exercise may not have much impact on India-Russia relations but surely it indicates that India cannot take Russia for granted. There is urgent need to revitalize our relation with Russia. In these circumstances, India has to rebuild on its strengths and common concerns with the Russians.
- Russia will not become a major Pakistani partner any time soon, and will remain closely connected to India. Still, the Kremlin's move delivers a strong message to the Modi administration. In effect, New Delhi acknowledges Moscow's security concerns but also understands that the Russia-Pakistani partnership would continue to evolve proportionally to India's cooperation with the West.



## 3. ECONOMY

### 3.1. BUDGETARY REFORMS

#### About

- The Union Cabinet has approved the proposals of Ministry of Finance on certain landmark budgetary reforms as given below. All these changes will be put into effect simultaneously from the Budget 2017-18.

#### Merger of Railway Budget

- The presentation of separate Railway budget started in the year 1924, and has continued after independence as a convention rather than under Constitutional provisions.
- **Benefits**
  - ✓ The merger was warranted so as to **save the annual dividend liability of railways which runs to about Rs. 10,000 crores.**
  - ✓ This is a **colonial practice** which does not seem to rightly fit in the changed conditions. No other country has a similar practice today.
  - ✓ The practice is mainly used by **politicians for populist reasons** without sound economic rationale.
  - ✓ Over the years the general budget expenditures have been more than the railways and several ministries like **defence have more expenditures** than railways.
  - ✓ The presentation of a unified budget will bring the affairs of the Railways to centre stage and present a holistic picture of the financial position of the Government.
  - ✓ The merger is also expected to reduce the procedural requirements and instead bring into focus, the aspects of delivery and good governance.
  - ✓ Consequent to the merger, the appropriations for Railways will form part of the main Appropriation Bill.

#### Advancement of Budget Date

- **Benefits**
  - ✓ This would pave the way for early completion of Budget cycle and **enable Ministries and Departments to ensure better planning and execution of schemes** from the beginning of the financial year.
  - ✓ It would lead to **utilization of the full working seasons** including the first quarter.
  - ✓ This will also **preclude the need for seeking appropriation through 'Vote on Account'** and enable implementation of the legislative changes in tax laws for new taxation measures from the beginning of the financial year.
  - ✓ This would **synchronize the transfer of funds to states** with their own state budgets.
- However, this will lead to less expenditure by various ministries in the current fiscal year, which can be a deterrent for growth.

#### Merger of Plan and Non-Plan classification

- **Benefits**
  - ✓ The Plan/Non-Plan bifurcation of expenditure has led to a **fragmented view of resource allocation to various schemes**, making it difficult not only to ascertain cost of delivering a service but also to link outlays to outcomes.
  - ✓ The bias in favour of Plan expenditure by Centre as well as the State Governments has led to a **neglect of essential expenditures on maintenance of assets** and other establishment related expenditures for providing essential social services.
  - ✓ The system is based on past commitments and requirements and residual resources allocated to Plan budget. This has resulted in **reduced flexibility in allocation** within the Plan budget.
  - ✓ The distinction was important earlier as Planning Commission used to play an important role in determining the quantum of plan expenditure. However, with the abolition **of the Planning Commission**, the relevance of plan and non-plan expenditure is lost.
  - ✓ A better indicator of productive and general expenditure will be a distinction under the heads of revenue and capital. The merger is expected to provide appropriate budgetary framework having focus on the revenue, and capital expenditure.



## 3.2. INDIA'S FIRST COASTAL ECONOMIC CORRIDOR

### About

- India has planned to build its **first Eastern Coast Economic Corridor (ECEC) from West Bengal to Tuticorin in Tamil Nadu.**
- As part of the project, recently, the **Asian Development Bank approved a \$631 million loan** for the construction of industrial corridor between Vishakhapatnam and Chennai (VCIC).
- The fund will help develop the first key **800-km section of the planned 2,500-km East Coast Economic Corridor.** The remaining \$215 million will be funded by the Andhra Pradesh government.
- The idea is to not just build new ports or upgrade old ones but **raise entire industrial ecosystems** that encompass several such ports.
- The ADB loan will help the government build state-of-the-art industrial clusters, roads, efficient transport, and reliable water and power supplies with a skilled workforce and good business policies.

### Coastal Economic Zones

- Coastal location allows companies to operate in the world markets unhindered by the poor infrastructure in the hinterland. This was successfully done in China.
- The NITI Aayog, thus, suggests that India should also work on building a coastal economic zone. This becomes further attractive in the light of **Sagarmala initiative.**

### Significance

- The new industrial corridor is expected to **spur growth by augmenting existing investment** in world-class transport networks, infrastructure, and industrial and urban clusters.
- VCIC will also be an **important component of the government's Make in India campaign to attract foreign investors and encourage the creation of manufacturing hubs** in the country. According to ADB's projections, automobile and electronic manufacturing will grow 24% a year over the next two decades along the coastal corridor districts.
- By linking areas that are lagging in development with dynamic industrial and urban clusters, VCIC will **create employment opportunities that alleviate poverty and reduce inequality.** This is particularly significant for the Eastern region as it lags behind other regions of the country.
- It can help **unify the large domestic market.** The Visakhapatnam-Chennai corridor, for example, will link four economic hubs and nine industrial clusters.
- It will **integrate the Indian economy with the dynamic global value chains of Asia and drive India's Act East policy.** Greater connectivity and economic integration between South Asia and the rest of Asia is likely to contribute significantly to development and foster regional cooperation as well.
- As a coastal corridor, VCIC can provide **multiple access points to international gateways.**
- It is **in line with the trade reforms** needed in the evolving global trade landscape.

### Maritime Clusters and CEZ

- Maritime clusters are to be one of focal points for economic development along India's coastline, according to a draft report prepared under Sagarmala Programme of the Ministry of Shipping.
- The report on port-led-industrial development of the coastal economic clusters identifies two major maritime clusters in **Tamil Nadu and Gujarat** as areas with potential

### Need

- Globally,** the shipbuilding market is dominated by China, Korea and Japan, which cumulatively account for 90 per cent of the world's shipbuilding capacity.
- According to the report, India currently accounts for **only 0.45 per cent** of the global shipbuilding market and could target 3–4 mn DWT of the global shipbuilding capacity by 2025.
- The report also states that India can target to **achieve a 0.2 per cent share** of maritime services in overall GDP by 2025.
- INR 5,000 crore worth ancillaries market for maritime cluster can prove to be a huge opportunity for the Indian economy with engineering, fabrication and machining offering the greatest potential by 2025.

- The report further captures overall opportunity of port-led industrial development for the country through **14 CEZs proposed** along the maritime states and industrial clusters under Sagarmala.
- The competitive location of these CEZs will help reduce logistics costs, thus, enabling Indian trade to be more competitive globally.
- These proposed CEZs have been envisioned to tap **synergies** from the industrial corridors to provide a thrust to manufacturing and industrialization under the 'Make in India' initiative of the Government of India.

### 3.3. INDIA IMPROVES IN GLOBAL COMPETITIVENESS INDEX

#### Why in news

India's position **improved to 39<sup>th</sup>** rank in the World Economic Forum's latest Global Competitiveness Index.

#### Key facts

- India improved 16 places to 39, making it the fastest riser up the ranks among 138 countries surveyed.
- India's competitiveness improved across the board, particularly in goods market efficiency (60), business sophistication (35) and innovation (29).
- India is also the second most competitive country among BRICS nations (China on 28<sup>th</sup>).
- **Recent reform efforts** by the government that help improve rank are
  - ✓ Improving public institutions (up 16 places).
  - ✓ Opening the economy to foreign investors and international trade (up 4).
  - ✓ Increasing transparency in the financial system (up 15).
- WEF observed that India still needs to tackle **problems** like
  - ✓ Labour market deficiencies,
  - ✓ large public enterprises that reduce economic efficiency,
  - ✓ the financial market,
  - ✓ Lack of infrastructure.

#### MARKED ADVANCEMENT

YEAR	INDIA'S GLOBAL COMPETITIVENESS RANKING	TOTAL COUNTRIES
2016-17	39 ▲	138
2015-16	55 ▲	140
2014-15	71 ▲	144
2013-14	60 ▼	148
2012-13	59 ▼	144

India's performance	RANK	
	2015-16	2016-17
<b>Basic requirements</b>	80	63 ▲
Institutions	60	42 ▲
Infrastructure	81	68 ▲
Macroeconomic environment	91	75 ▲
Health and primary education	84	85 ▼
<b>Efficiency enhancers</b>	58	46 ▲
Higher education and training	90	81 ▲
Goods market efficiency	91	60 ▲
Labour market efficiency	103	84 ▲
Financial market development	53	38 ▲
Technological readiness	120	110 ▲
Market size	3	3 ▲
<b>Innovation and sophistication factors</b>	46	30 ▲
Business sophistication	52	35 ▲
Innovation	42	29 ▲

Source: Global Competitiveness Index

### 3.4. PSU REFORMS: DISINVESTMENT POLICY

#### Why in News

- Recently, the **PMO has given approval to NITI Ayog's proposal for strategic sales in about 22 public sector companies**. It is aimed at reducing government ownership to below 51 per cent.
- It has further approved the Ayog's recommendations of closing certain loss-making PSUs as part of its PSU reforms measures.
- The government had earlier renamed the Department of Disinvestment as the Department of Investment and Public Asset Management (**DIPAM**).

#### Background

- The disinvestment policy of India has undergone several changes. The **policy of the present NDA government focuses on three points**:
  - ✓ Public Sector Undertakings are the wealth of the Nation and to ensure this wealth rests in the hands of the people, promote public ownership of CPSEs
  - ✓ While pursuing disinvestment through minority stake sale in listed CPSEs, the Government will retain majority shareholding, i.e. at least 51 per cent of the shareholding and management control of the Public Sector Undertakings; and

- ✓ Strategic disinvestment by way of sale of substantial portion of Government shareholding in identified CPSEs up to 50 per cent or more, along with transfer of management control.
- The Finance Minister in this year's budget speech had promised strategic disinvestment worth Rs.41,000 crores.

#### Significance

- The move is aimed at not just meeting the fiscal needs of the government but **pursuing the larger aim of managing the public investment more effectively.**
- This is part of the long-term process of **PSU reforms.**
- The involvement of NITI Ayog streamlines the process.

### 3.5. INFRASTRUCTURE FUNDING

#### Long term irrigation fund

- The National Bank of Agriculture and Rural Development (NABARD) will raise in phases over Rs 77,000 crore from the market.
- Raised money will fund around 100 prioritised irrigation projects, including 56 in drought-prone areas, under the Pradhan Mantri Krishi Sinchayee Yojana (PMKYS) over the next four years.
- The government will irrigate an estimated area of 76.03 lakh hectares with more focus on increasing irrigation potential utilisation.
- Of the total projects, 26 will be completed in Maharashtra, 14 in Madhya Pradesh and 11 in Telangana.
- **Benefits of the fund**
  - ✓ Focus will be on convergence of investments in irrigation at the field level and expansion of cultivable area under irrigation
  - ✓ Enhance the adoption of water saving technologies and attract private investment to cover this aspect of agriculture

#### Sports Sector Gets the Infrastructure Status

- **Ministry of Finance** after discussions with different agencies including RBI have decided that **sports infrastructure** will be included under the **Harmonized Master List of Infrastructure Subsectors.**
- It includes the provision of Sports Stadia and Infrastructure for Academies for Training / Research in Sports and Sports-related activities.
- **Benefits**
  - ✓ It will now be eligible for obtaining **long term financial support** from banks and other financial institutions.
  - ✓ It will **encourage private investment in a public good** which has socio-economic externalities.
  - ✓ It will bolster **investment in sports infrastructure** sector which will contribute to the **economy**, promote **health and fitness** and will provide **opportunities for employment.**
  - ✓ The country can become a **sporting power in future.**

#### Extra Budgetary Resources for Infrastructure

- The Union Cabinet has given its approval for raising a total of Rs. 31,300 crore in the financial year 2016-17 to augment infrastructure spending
- The move is intended to supplement the efforts of the Government to improve infrastructure spending and to improve the revenue-capital mix of the expenditure for a more sustainable growth.
- **Importance of the sector**
  - ✓ Infrastructure spending is one of the key parameters to judge the sustainability of growth in a country.
  - ✓ The proportion of Capital expenditure to the total expenditure is the yardstick to measure this
  - ✓ The announcement has been made in the lines of this approach

### Railways India Development Fund

- Railways are setting up a Rs 30,000 crores fund, first-of-its-kind for the national transporter, for implementation of remunerative projects across the country.
- Investors like World Bank, National Infrastructure Investment Fund, pension and insurance fund and other institutional investors are expected to be part of the RIDF.
- However, the RIDF will invest only on those rail projects having higher rate of returns with minimum rates ranging between 14 per cent and 16 per cent.
- RIDF will focus on new lines for freight movement or redevelopment of stations and will not invest in non-remunerative projects.
- Since freight lines are more remunerative than passenger line, RIDF will focus on goods movement.
- Currently, Railways has undertaken many new projects which are socially desirable but economically non-viable.

## 3.6. LANGUISHING ROAD PROJECTS

### Why in news?

- As per the data submitted by Ministry of Road Transport and Highways before the Parliamentary standing committee)
  - ✓ There are 46 projects which have been identified by NHAI as languishing with a total length of these projects is 4,860 km. covering a total project cost of Rs 51,338 crore.
  - ✓ Out of 46, issues have been resolved in 27 cases whereas issues on 19 projects are yet to be sorted out.

### Reasons responsible for project delays

- **Lack of equity with the concessionaire:** it leads to delay in completion date. So bankers not disbursing even the sanctioned loan.
- **Diversion of funds:** Physical progress of work not commensurate with the financial progress. It results into concessionaires are finding it difficult to bring back the funds so diverted.
- **Problems in getting various clearances** like land acquisition, environment /forest clearance /utility shifting /RoB issues.
- **Refusal of banks to accept right of NHAI on toll/annuity:** For any languishing highway project in BOT (toll/annuity) mode that has achieved at least 50 per cent physical completion, NHAI will provide financial assistance to complete the project subject to first charge on the toll/annuity receivables of these projects. However, the banks have refused to accept the first charge of NHAI and therefore no progress in implementation of this policy to complete languishing projects is being achieved.
- **Long period of revenue collection:** Revenue streams spread over 20 to 30 years, but project debt having tenure of 10 to 15 years, is unsustainable.
- **High cost of interest during construction (IDC):** The cost of construction in case of delay, whether due to concessionaire or the Authority, results in increase in the cost of debt which turns the project unviable.
- Difficulty in obtaining additional debt in stalled projects
- Overleveraged balance sheet of the developers
- Stress on the existing road infrastructure loan portfolios of FIs.

### Steps taken by Government

- High-level committee under the chairmanship of K Kasturirangan to look into the unresolved issues impacting the sector.
- Introduced hybrid annuity model.
- Those awarded projects can reschedule the premium they had committed during the bidding process.
- A policy that allows substitution of any concessionaire in a financially stressed project with another in a harmonious manner.
- De-linked environment clearance from forest clearance.
- A policy that permits 100% divestment by the company which has won the contract 2 years after the construction is completed. This is applicable to all projects under the build-operate-transfer (BOT) model irrespective of the year the project was awarded.

- The government is also focusing on having regular consultations with all stake-holders to discuss challenges they face and work out a practical way forward.

### 3.7. ECONOMIC FREEDOM INDEX

#### Why in News

- The 2016 report of the Economic Freedom of the World has **placed India at 112<sup>th</sup> position out of 159 countries, a slip of 10 positions from previous year.**

#### What is it?

- A **classic definition of economic freedom** for individuals is when the 'rightly acquired economic property of people is protected and the people are free to use, exchange, or give their property as long as their actions do not violate the identical rights of others'.
- Thus, essentially, **economic freedom is dependent on the following broad dimensions: Security of privately-owned property, levels of personal choice, ability to enter markets and the rule of law.**
- Economic Freedom Index basically tries to measure this freedom and ranks countries accordingly.
- Such indexes are usually produced by economic think tanks. For example, the present index is produced by the U.S.-based Heritage Foundation in conjunction with the Wall Street Journal.
- The index is a measure of economic prosperity on per capita GDP basis.

#### Significance of the Index

- Within the five broad areas, **India's rank is best for the size of the government (8), while it performs poorly on regulation (132) and freedom to trade internationally (144).**
- The poor performance on exports is due to global economic sluggishness and India's own delays in infrastructural projects.
- Similarly, too many regulations have hampered the prospects of economic growth. The government has done well to identify and weed out key laws and regulations that are not in accordance with the present times.
- Better regulations along with laws like GST, Bankruptcy code, Labour law reforms, etc will help in improvement along the regulation dimension of the Index.

### 3.8. URBAN-RURAL DISPARITY IN GROWTH OF MICROFINANCE INSTITUTIONS

#### About

- As per the recent **report by Sa-Dhan**, the self-regulatory body of MFIs, the **growth of MFIs has been faster in urban areas than rural areas.**
- The annual increase in loan disbursement in rural areas has been just 14% as compared to 27% in urban areas.
- **Urban and semi-urban areas already account for about 72% of the loan portfolio of MFIs.** The rural ratio has decreased from 30% to 28% in last year.
- Barring the two old-generation MFIs- Bandhan and SKS-the next four top MFIs have nearly 70 per cent of their portfolio focused on urban areas.

- MFIs are intended to provide financial help to low-income groups, the bulk of which resides in rural areas.
- The **heavy inclination towards urban areas, thus, points towards non-fulfillment of objectives of MFIs.**
- MFIs have proved to be an important source of empowerment of vulnerable sections of society especially women and also SC/STs. They are, thus, needed more in rural areas.

#### Reasons for the trend

- The **MFIs are looking to cut their operation costs** as they cannot charge more than 10% over the cost of loans taken from banks. Big slums in cities turn out to be cost-effective markets over small villages in far-flung locations in terms of office spaces, human resources.



- Demand for rural credit is mainly for agricultural loans, which under Centre's various 'krishi' schemes are better catered by banks at a lower interest rate.
- It points towards the larger trend that banks in India are reluctant to engage in rural areas.
- Demand for rural loaning is of low volume
- Migration to urban areas is fast and many of these migrants are also microfinance clients.
- Phenomenal growth of a few urban-focused MFIs

### 3.9. AADHAR BASED BIOMETRIC AUTHENTICATION IN PDS

#### Issue

- A study led by **Jean Dreze in nine PDS states**-- Andhra Pradesh, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Odisha, Rajasthan, Tamil Nadu and Uttar Pradesh found that the system was working reasonably well for "below poverty line" (BPL) households. On average, they were receiving 84 per cent of their food grain entitlements from the PDS.
- However, high leakages continued in the "above poverty line" (APL) quota, which tended to be used by the Central government at that time as a dumping ground for excess food stocks.
- Installation of "Point of Sale" (PoS) machines at PDS shops, and verifying the identity of cardholders by matching their fingerprints against the Aadhaar database over the Internet has led to inefficiencies in states like Jharkhand and Rajasthan.
- This system requires multiple fragile technologies to work at the same time: the PoS machine, the biometrics, the Internet connection, remote servers, and often other elements such as the local mobile network.
- Further, it requires at least some household members to have an Aadhaar number, correctly seeded in the PDS database.
- The Central government continues to push for compulsory Aadhaar-based biometric authentication in the PDS. This is a violation of the Supreme Court orders, as the Court did not make Aadhaar compulsory for PDS users.
- The main vulnerability today, is not identity fraud (e.g. bogus cards), but quantity fraud: PDS dealers often give people less than what they are entitled to, and pocket the rest.
- Moreover, PoS machines are ineffective in preventing quantity fraud. They may help in reducing identity fraud, such as it is, but that does not justify depriving people of their food entitlements when the technology fails.

#### Analysis of the PDS system

- India's Public Distribution System (PDS) has improved steadily during the last 10 years.
- Initially, the system was ineffective and corruption-ridden, with leakages of around 50 per cent at the national level, going up to 80 or 90 per cent in some States.
- Around 2007, Chhattisgarh took the lead in reforming the PDS — making it more inclusive, methodical and transparent. Within a few years, the system was overhauled.
- Today, most rural households in Chhattisgarh have a ration card, and are able to secure their entitlements (typically 7 kg of rice per person per month) on time every month.
- Many other States also initiated Chhattisgarh-style PDS reforms: broad coverage, clear entitlements, de-privatisation of PDS shops, separation of transport agencies from distribution agencies, computerisation, fixed distribution schedules, tight monitoring.

#### Way forward

An end-to-end technology solution for the digitisation of the vast Public Distribution System is required that can track discrepancies and prevent leakages.

## 3.10. PULSES CRISES

### Why in News

- India has been in the **grip of a pulses crisis, or rather crises, in the last few years**. The proximate problem is last two years of poor pulses production in the wake of weak monsoons, resulting in excess demand, rising imports and price rise.
- In recent months however, scarcity has ceded to surplus leading to plummeting of prices. This volatility, which alternates between adversely impacting consumers and farmers, creates dilemmas for public policy.
- Earlier this year, the government had constituted an **expert panel under CEA Arvind Subramanian** to look into the problem. The panel submitted its report this month.

### Key Recommendation

- A strong case for increasing domestic production
  - ✓ From a consumption perspective, pulses are going to be increasingly important in the dietary habits of the average Indian consumer. Normatively, this is desirable because the average Indian under-consumes protein and pulses offer a cheap source of protein.
  - ✓ The demand-supply mismatch cannot be fixed by imports as India is already one of the biggest importers of pulses in the world.
  - ✓ The foreign supplies are correlated with domestic production and thus food security in pulses can be achieved only by boosting domestic production.
  - ✓ Pulses, in contrast to cereals, are grown by small and marginal farmers in dryland areas. High MSPs that raise the incomes of pulse-growing farmers can help create a new constituency that lobbies for policies favoring pulses.
- Need for Remunerative MSP for pulses
  - ✓ **Higher MSPs** in pulses are necessary not only to incentivize the farmers to produce more pulses but also increase the bargaining powers of small and marginal farmers.
  - ✓ Remunerative MSPs alone will not be sufficient to induce farmers to switch to pulses production. They have to be **backed up by price support/procurement operations** to ensure that market prices do not fall precipitously and then deter farmers from cultivating pulses in the following season. Thus, the **MSP must act as a floor on market price**.
- Other recommendations
  - ✓ High level committee to be constituted **to monitor procurement**.
  - ✓ **Need to increase yield in pulses**. Indian productivity in pulses is almost half of other pulses producing countries like Myanmar. Need to **encourage development of GM technologies**. Grant expeditious approval to indigenously developed new varieties of pulses.
  - ✓ Encourage **states to delist pulses from their APMCs**
  - ✓ **Review Essential Commodities Act, 1955** and futures trading of agricultural commodities with a view to preserving objectives but finding more effective and less costly instruments for achieving them
  - ✓ Create a **new institution as a Public Private Partnership (PPP)** to compete with and complement existing institutions to procure, stock and dispose pulses
- **Concerns**
  - ✓ General **equilibrium effect on production of crops that compete with pulses**. This can be minimized in three ways:
    - First, in the medium term pulses production must be incentivized in the irrigated areas of Punjab because some reduction in paddy production is socially desirable here: paddy stocks are high and paddy cultivation has large negative externalities in this region.
    - Second, pulses production should also be encouraged in the fallows of eastern India.
    - Third, a focus on increasing productivity and yields both in pulses and in competing crops such as cotton can also help minimize the adverse consequences.
  - ✓ **Higher inflation**: The Panel rules out this effect as unlike in the case of cereals, the MSP in pulses is envisaged as price support. Thus, procurement will kick in only in adverse state.



### 3.10.1. GOVERNMENT RAISES BUFFER STOCK OF PULSES

#### Why in news

**Cabinet Committee on Economic Affairs** approved decision to more than double the **buffer stock limit** from 800,000 tonnes to 2 million tonnes.

#### Significance

- Will help government to intervene and **control spikes in retail prices** of pulses and address recurring gaps between demand and supply.
- Will increase buffer stocks to at least **10% of domestic consumption**.
- Will encourage domestic farmers to **increase production** of pulses.
- Will also deter hoarders to hold stock, thus, **preventing artificial hike in prices**.

#### Mechanism

- Funding through 'Price Stabilization Fund' scheme.
- Procurement by Central agencies (**FCI, NAFED and SFAC**) or **State governments**.
- Procurement at prevailing market prices or Minimum Support Prices (MSP) whichever is higher
- Buffer stock of 2 million tonnes will comprise **domestic procurement of 1 million tonnes** and **rest will be arranged via government-to-government contracts** with other countries and spot purchases from the global market.

### 3.11. PROJECT SAKSHAM

#### Why in news

Cabinet committee cleared the Rs 2,256 crore **back-end information technology (IT) project for the indirect tax department (CBEC)**.

#### Significance

- **CBEC's IT structure needs to integrate with Goods and Service Tax Network (GSTN)** for processing of registration, payment and returns data sent to CBEC as well as act as a front-end for other modules like audit, appeal and investigation.
- This IT infrastructure is also **urgently required for**
  - ✓ Continuation of **CBEC's e-services** in Customs, central excise and service tax.
  - ✓ Implementation of taxpayer services such as scanned document upload facility.
  - ✓ Extension of Indian Customs **SWIFT initiative** and
  - ✓ Integration with government initiatives such as **e-Nivesh, e-Taal and e-Sign**.

#### Goods and Services Tax Network (GSTN)

- It is a **not for profit**, non-Government, private limited company incorporated in 2013.
- The **Government of India holds 24.5% equity** in GSTN
- **All States including NCT of Delhi and Puducherry**, and the Empowered Committee of State Finance Ministers (EC), together **hold another 24.5%**.
- **Balance 51% equity is with non-Government financial institutions.**
- The Company has been set up **primarily to provide IT infrastructure and services** to the Central and State Governments, tax payers and other stakeholders for implementation of the Goods and Services Tax (GST).

After rolling out of GST, the Revenue Model of GSTN shall consist of **User Charge to be paid by stakeholders** who will use the system and thus it will be a self-sustaining organization.

#### Key facts

- This new indirect tax network (systems integration) called Project Saksham will **help in smooth roll-out of goods and services (GST) tax** from April 1, 2017.
- It will be **developed with the help of Wipro**, whereas GSTN is developed by Infosys.
- Project Shakhsham is back-end IT infrastructure of CBEC. **GST Network (GSTN), a private body, is developing the front-end infra with the help of Infosys.**

### 3.12. REGULATION OF DIRECT SELLING FIRMS

#### Why in News

- The Center has issued **model guidelines for State governments to regulate the business of direct selling** and multi-level marketing with an **aim to protect the consumers from Ponzi schemes**.

#### Need for Regulation

- Many fraudulent schemes especially in the **nature of pyramid schemes and money circulation schemes have been in circulation**. Their processes are similar to these direct selling firms and this creates a problem for not only gullible customers but also put the legitimate direct selling firms in bad light.
- The **arrest of William Pinckney**, MD and CEO of the country's largest direct selling company Amway for unethical circulation of money under the Prize Chits and Money Circulation Schemes (Banning) Act, 1978 two years ago had put the spotlight on this.
- Further, there is a **need to protect the agents and customers** from any kind of exploitation due to the special nature of direct selling.

**Direct selling:** A marketing, distribution and sale of goods or providing of services as a part of network of direct selling.

**Pyramid scheme or Money Circulation scheme:** It involves an unsustainable business which rewards people for enrolling others into a business that offers a non-existent or worthless product.

**Ponzi scheme:** It is a fraudulent investing scam promising high rates of return with little risk to investors.

Pyramid schemes are banned under **Chits and Money Circulation Schemes (Banning) Act, 1978**

#### Model Guidelines: Key Points

- Protection from fraud:**
  - ✓ The framework defines legitimate direct selling and differentiates it from pyramid and money circulation schemes to help investigating agencies identify fraudulent players.
  - ✓ The guidelines list out conditions for the set up of a direct selling business, including that such a firm should be a registered legal entity.
- Interest of agents:**
  - ✓ These entities will have to enter into a contract with direct sellers or agents, and give full refund or buy-back guarantee for goods and services sold to them.
  - ✓ They bar companies from charging any entry fee from agents or compelling them to buy back unsold stocks.
  - ✓ It lays down a remuneration system.
- Consumer interest**
  - ✓ It mandates to constitute a grievance redressal committee.

#### Conclusion

The guidelines are being welcomed by all the stakeholders. The norms have the potential to weed out fraudulent players, help serious companies grow, protect consumers along with agents and entrepreneurs.

### 3.13. CURRENT ACCOUNT MOVES INTO SURPLUS

#### Why in news?

India's current account moved in to surplus in the April-June quarter of the current fiscal year after a gap of 9 years.

#### Analysis

- The major contributor to India's Current Account Deficit (CAD) has been imports of Gold and Crude Oil.
- Sustained period of CAD has led to currency depreciation, high rates of inflation which further effects the incoming foreign investment.
- Fall in gold imports and lower oil import bill in recent time led to shrinkage in the deficit.
- A current account surplus means an economy is exporting a greater value of goods and services than it is importing.

#### Concerns

- A surplus is expected to bolster the rupee, which could render India's already subdued exports less competitive.
- For a developing economy like India slow import growth is a negative sign, as it reflects weak investment demand because Indian firms need to buy capital goods and machinery from abroad.

- There is no hard and fast rule about what will happen if a country has a current account surplus. It depends on the size of the current account and the reasons for the current account surplus.
- In the case of India, slow growth in imports, reflecting the persisting weakness in the investment sentiment, is the prominent reason behind this.
- The current account was in surplus last in the January-March quarter in the year 2007.

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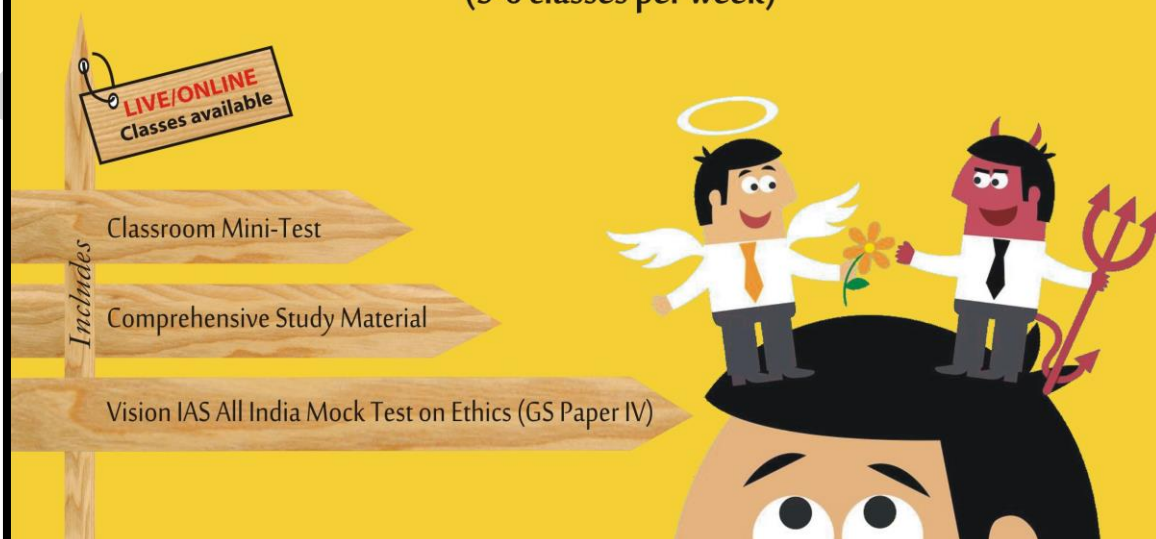
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## 4. SOCIAL ISSUES

### 4.1. GLOBAL RANKING OF INDIAN INSTITUTE

#### Why in News

- The global ranking of prestigious Indian institutes have gone down with Indian Institute of Science (IISc) Bangalore, along with six top-ranked Indian Institutes of Technology (IITs), dropped in the latest QS World University Rankings 2016-17.
- QS World University Rankings is an annual publication of university rankings by Quacquarelli Symonds (QS). Previously known as **THE-QS World University Rankings**.

#### Solutions

- Need an infusion of fresh ideas and teaching mechanisms to create a new educational infrastructure that not just delivers knowledge, but also encourages new thinking and boosts the spirit of innovation in the new generation.
- Need to adopt to create a global culture to have world-class educational institutions, borrow ideas in pedagogy from the best institutions around the world and move from a top-down mode of education to a more organic culture of learning.
- Need educational institutions that not only create skilled human resource but also boosts indigenous research and development, power the country's intellectual and entrepreneurial leadership, and instill scientific thinking among the masses.
- Need institutions that can become a major draw for international students to help obtain the twin purposes of earning foreign reserve and spreading the country's soft power.

#### Factors responsible for decline in ranking

- India's relatively low numbers of PhD-qualified researchers, which has an impact on the research productivity and impact of India's universities.
- Nine of India's universities also fall for faculty/student ratio.
- Lack of innovation and new ideas in institutions
- Absence of world class teaching institutions
- Old curriculum and less practical work in engineering colleges etc.

### 4.2. HIGHER EDUCATION FINANCE AGENCY (HEFA)

#### Why in news?

- The Union Cabinet has approved the creation of the Higher Education Financing Agency (HEFA) to give a major push for creation of high quality infrastructure in premier educational institutions.
- Later on instead of the Rs2,000 crore equity portion that the cabinet approved earlier, with Rs1,000 crore coming from the government, HEFA will now have Rs1,050- 1,100 crore of equity that will be used to raise funds from the markets for lending to educational institutions.
- Potential equity partners in HEFA balked at infusing Rs1,000 crore into the vehicle, given that it's expected to be a low-margin business, prompting the government to set its sights lower.

#### About HEFA

- It will be jointly promoted by the identified Promoter and the **Ministry of Human Resource Development**.
- It would be formed as a SPV within a PSU Bank/ Government-owned-NBFC (Promoter). It would leverage the equity to raise up to Rs. 20,000 crore for funding projects for infrastructure and development of world class Labs in IITs/IIMs/NITs and such other institutions.
- It would also mobilise CSR funds from PSUs/Corporates, which would in turn be released for **promoting research and innovation** in these institutions on grant basis.
- It would finance the civil and lab infrastructure projects through a 10-year loan.
- The principal portion of the loan will be repaid through the 'internal accruals' (earned through the fee receipts, research earnings etc) of the institutions. The Government would service the interest portion through the regular Plan assistance.

#### Concerns

Since the institutions will borrow money and return it, they have to be revenue-surplus, which may make a fee hike the first possibility. This will be detrimental for students coming from poor economic backgrounds.

- For joining as members, the Institution should agree to escrow a specific amount from their internal accruals to HEFA for a period of 10 years. This secured future flows would be securitised by the HEFA for mobilising the funds from the market.
- All the Centrally Funded Higher Educational Institutions would be eligible for joining as members of the HEFA.

#### Significance

- HEFA marks the beginning of a market-linked education financing structure in India and a departure from the traditional grant-based system of funding higher educational institutions.
- The agency is expected to ease pressure on the government, which currently is the sole funder of such institutions.
- HEFA will instill accountability in higher educational institutions. As the institutes need to pay back, a market force-driven fee structure is required. But for charging more fees, it needs to provide better facility, better infrastructure for which they need to borrow. The cycle will instill accountability.
- It would provide the much needed funds to boost research oriented infrastructure.

### 4.3. THE DRAFT NATIONAL MEDICAL COMMISSION BILL, 2016

#### Why in news?

- In March 2016, a parliamentary committee report delivered a scathing indictment of the Medical Council of India's (MCI) functioning following which NITI Aayog was given task of drafting a bill for revamping MCI.

**Focus of the bill:** The bill aims to create a world-class medical education system that

- Ensures adequate supply of high quality medical professionals at both undergraduate and postgraduate levels.
- Encourages medical professionals to incorporate the latest medical research in their work and to contribute to such research.
- Provides for objective periodic assessments of medical institutions.
- Facilitates the maintenance of a medical register for India and enforces high ethical standards in all aspects of medical services.
- is flexible so as to adapt to the changing needs of a transforming nation

#### Key features of the bill

- The Bill does away with elected members to different bodies.
- **Medical Advisory Council:** The Council shall serve as the primary platform through which the states would put forward their views and concerns before the National Medical Commission (NMC).
- **National Medical Commission (NMC)**
  - ✓ The commission shall assess the changing requirements of the health care scenario, human resources for health, health care infrastructure and develop a road map for meeting these requirements.
  - ✓ It shall frame requisite policies for the governance of Medical Education.
  - ✓ It shall provide overarching policy coordination among the Boards with due regard to their autonomy.
  - ✓ Commission shall exercise Appellate Authority with respect to decisions of the UGMEB, PGMEB and MARB.
- **Under-Graduate Medical Education Board (UGMEB):** UGMEB will determine and prescribe standards and oversee all aspects of medical education at undergraduate level
- **Post-Graduate Medical Education Board (PGMEB):** PGMEB will determine and prescribe standards and oversee all aspects of medical education at the postgraduate and super-speciality levels.
- **Medical Assessment and Rating Board (MARB)**
  - ✓ MARB shall determine the process of Assessment and Rating of Medical Educational Institutions as per the standards laid down by the UGMEB or PGMEB
  - ✓ It shall levy monetary and other such penalties on Institutions which fail to maintain the minimum essential standards.
- **Board for Medical Registration (BMR)**
  - ✓ The BMR shall maintain a live National Register of all licensed medical practitioners to be known as the National Register.
  - ✓ BMR shall prescribe the standards of professional conduct and frame a Code of Ethics for medical practitioners.



- The bill provides for a uniform **National Eligibility-cum-Entrance Test (NEET)** for admission to undergraduate medical education under the purview of National Medical Commission.
- The bill aims to create the **National Medical Commission Fund** for meeting the salaries, allowances and other remuneration of the Chairman and Members of the Commission, Boards, officers and other employees of the Commission and the Boards.

#### 4.4. UNITED NATIONS HIGH PANEL REPORT ON ACCESS TO MEDICINES

##### Why in News?

- The UN released its High-Level Panel report on Access to Medicines showing concerns over non-accessibility of medicines due to high prices.

##### Highlights of the Report

- The report has urged governments to
  - ✓ “Urgently” increase their current levels of investment in health technology innovation.
  - ✓ De-link drug prices from R&D costs.
  - ✓ To globally prioritise research on disease whose needs are unmet such as growing emergence of infectious diseases like Ebola and Zika.
- The panel has recommended making the drug prices transparent both to the consumers and governments.
- The report calls for **human rights to be placed above intellectual property rights** so that all countries are able to use flexibilities granted under TRIPS to access affordable medicines.
- The report has also lashed out powerful nations on threatening weaker countries from overriding drug patents under TRIPS flexibilities.

#### 4.5. NEW HEALTH INDEX

##### Why in news?

- The first global analysis that assesses countries on sustainable development goal (SDG) health performance was launched at a special event at the UN General Assembly recently and published online in The Lancet.
- The scores ranked countries which nations are closest to achieving the targets.

##### How the ranking was done?

- The study was carried out by an international collaboration on the Global Burden of Disease (GBD) which analyzed each country's progress towards achieving health-related SDG targets by creating an overall SDG Index score.
- By using data from the Global Burden of Diseases, Injuries and Risk Factors (GBD) study between 1990 and 2015, the current status of 33 of the 47 health-related indicators were estimated.
- To enable easier comparison, a health-related SDG index was created with a rating of 0-100 that combines these 33 health-related indicators to measure progress for 188 countries between 1990 and 2015.

##### India's performance

- It has ranked India at 143 in a list of 188 countries with a score of 42/100. India is six places ahead of Pakistan and way behind countries like Sri Lanka (79), China (92), even war-torn Syria (117) and Iraq (128).
- India's score in few health-related indicators is as follows
  - ✓ **Malaria:** India registered only 10 points.
  - ✓ **Under-five mortality:** India has a score of 39 on this front.
  - ✓ **On safe hygiene practices,** India has 8 on the scale of 0-100.

A CALL FOR TRANSPARENCY		
Key recommendations made by the UN report		
Countries that threaten generic drugmakers like India for using their entitlements under the TRIPS Agreement will face serious sanctions	<ul style="list-style-type: none"> <li>• Governments should negotiate the coordination, financing and development of health technologies to aid existing models</li> </ul>	<ul style="list-style-type: none"> <li>• It is imperative that governments increase their current levels of investment in health technology innovation to address unmet needs</li> </ul>

The report calls for transparency in the pricing of drugs



- ✓ **India's highest score** has been 93 on the 'war' indicator front that assesses age-standardised death rate due to collective violence and legal intervention, per 100,000 populations.

## 4.6. INDIA DECLARED FREE FROM BIRD FLU

### Why in news

- India has declared itself free from the highly contagious avian influenza or bird flu.
- Bird flu (avian influenza) is a disease caused by strains of influenza virus that primarily affects birds.

### Causes

- Bird flu is caused by strains of the influenza virus that have evolved to be specially adapted to enter avian cells. There are three main types of influenza: A, B, and C.
- The virus that causes bird flu is influenza A type with eight RNA strands that make up its genome.
- Influenza viruses are further classified by analyzing two proteins on the surface of the virus. The proteins are called hemagglutinin (H) and neuraminidase (N).
- There are many different types of hemagglutinin and neuraminidase proteins. For example, the recent pathogenic bird flu virus has type 5 hemagglutinin and type 1 neuraminidase. Thus, it is named "H5N1" influenza A virus.

## 4.7. MARRAKESH TREATY COMES INTO FORCE

### Why in News?

- On Sep 29th, Marrakesh Treaty came into force, after 22 countries ratified the treaty adopted in 2013 by members of World Intellectual Property Organization (WIPO).

### What is Marrakesh Treaty?

- Marrakesh Treaty or Marrakesh VIP Treaty is formally known as Marrakesh treaty to facilitate Access to Published works by Visually Impaired Persons and Persons with Print Disabilities.
- It is also called "Books for Blind" treaty.

### Highlights of the treaty:

- The treaty allows for copyright exceptions to help for the creation, export and import, sharing, translation of the books in any format for accessible versions of copyrighted books and other works for the people with impaired visibility.
- The treaty is expected to alleviate the "book famine" experienced by 300 million people suffering from such disability, according to WHO.

### Implementation of Treaty

- World Intellectual Property Organisation (WIPO), a United Nations Organisation based in Geneva, administers the Marrakesh Treaty and leads an alliance of private and public partners known as the Accessible Books Consortium (ABC).
- The ABC has established a free centralized electronic database of accessible books produced by libraries for the blind around the world. It is a library-to-library service.

### India and Marrakesh Treaty

- India was the first country to ratify the Marrakesh Treaty back in July 2014 and has set an example for other countries to follow.
- India has 63 million visually impaired people, of whom about 8 million are blind, according to WHO.
- India has begun implementation of the Marrakesh Treaty through a multi-stakeholder approach, which includes collaboration among key players such as government ministries, local champions like the DAISY Forum of India, and the private sector.
- In line with Marrakesh treaty, India launched Accessible India Campaign (Sugama Bharat Abhiyan) and has set up Sugamya Pustakalaya, which has 2,00,000 volumes.

(Note: It is not to be confused with Marrakesh Agreement signed at the end of Uruguay round of discussions for establishing WTO.)

## 4.8. MISSION PARIVAR VIKAS

### Why in News?

- Health Ministry to launch “Mission Parivar Vikas” for improved family planning services.
- It was launched in 145 high-focus districts of Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh, Chhattisgarh, Jharkhand and Assam.

### Objective

To accelerate access to high quality family planning choices based on information, reliable services and supplies within a rights-based framework.

### Factors that affect population growth

- **Low socio-economic development:** For example, Uttar Pradesh has a literacy rate of 56%, records an average of four children per couple. In contrast, in Kerala almost every person is literate, records an average of two children per couple.
- **Infant mortality:** Empirical correlations suggest that high IMR leads to greater desire for children. In 1961, the Infant Mortality Rate (IMR) was 115. The current all India average is much lower at 57. However, in most developed countries this figure is less than 5.
- **Early marriage:** Nationwide almost 43% of married women aged 20-24 were married before the age of 18.
- **Use of contraceptives:** According to NFHS III (2005-06), only 56% of currently married women use some method of family planning in India. A majority of them (37%) have adopted permanent methods like sterilization.
- **Other socio-economic factors:** The desire for larger families particularly preference for a male child also leads to higher birth rates.
- It is estimated that preference for a male child and high infant mortality together account for 20% of the total births in the country.

### Why these districts chosen?

These 145 districts have been identified based on total fertility rate and service delivery for immediate, special and accelerated efforts to reach the replacement level fertility goals of 2.1 by 2025.

## 4.9. MATERNAL HEALTH

### Why in News

- The latest Lancet series on maternal health reveals that nearly one quarter of babies worldwide are still delivered in the absence of a skilled birth attendant.
- one-third of the total maternal deaths in 2015 happened in two countries: India and Nigeria

### Reasons for High MMR in India

- **Institutional delivery:** Institutional delivery rates in rural and urban areas were 28.9% and 67.5% respectively as per NFHS-III in 2005-06.
- **Women not getting Antenatal Care:** More than one out of every three women (34%) in India did not receive an ante-natal check- up for births in the three years preceding the survey. Only 7% received antenatal checkup in third trimester.
- **Postnatal care is grossly deficient.**
- **Teenage pregnancy and their risk of dying:**
  - ✓ Despite the Child Marriage Restraint Act (1978), 34 percent of all women are married below the legal minimum age of marriage (ie 18 years);
  - ✓ Girls aged 15-19 are twice as likely to die from child birth as women in their twenties; those under age 15 are five times as likely to die.
- **Women lack awareness** of the importance of pregnancy care and delivery/taking place in a healthcare

### Maternal deaths in India

45,000 mothers (15 per cent) died during pregnancy or childbirth in India while Nigeria shouldered the maximum burden of 58,000 (19 per cent) maternal deaths.

According to the World Health Organization (WHO) India's MMR, which was 560 in 1990, reduced to 178 in 2010-2012. However, as per the MDG mandate, India needs to reduce its MMR further down to 103.

facility (poor health education).

- **Women's lack of decision-** making power within the family (gender bias).
- **Lack of awareness of location** of health services (poor health awareness).
- **Cost:** direct fees as well as the cost of transportation, drugs and supplies (poverty).
- **The poor quality of services**, including poor treatment by health providers also makes some women reluctant to use services.

#### Solutions

- An improved, accountable health care system at primary level is essential for decreasing maternal mortality to the desired level.
- Make the antenatal, intra-natal and postnatal services available to women, located close to them. For this, linking hospitals by an emergency transport and good referral system of network is needed.
- Ensure delivery by skilled attendant nurses or doctors.
- Peripheral/ Village level interventions specifically directed towards major causes of maternal deaths are required.

### 4.10. HOUSEHOLD TOILET COVERAGE-SWACHH BHARAT MISSION

#### Important Details of the Survey

- For purposes of assessing performance, the Swachh Bharat Mission considers both individual household latrine coverage and ODF.
- The Ministry of Drinking Water and Sanitation conducts the Survey
- ODF is defined as “the termination of faecal-oral transmission, defined by no visible faeces found in the environment/village and every household as well as public/community institution using safe technology option for disposal of faeces.

#### Key Findings

- Sikkim (100%) and Himachal Pradesh (55.95%) have the maximum percentage of villages that are ‘Open Defecation Free’ (ODF).
- The total number of districts declared ODF in the country stand at 23.
- Three cities in Karnataka — coastal Mangaluru, Udupi and Mysuru — have been declared “open defecation free”
- Mysuru tops the list of “clean cities” for two consecutive years.
- A recent survey of 476 cities had also declared Mangaluru the third cleanest in India.

### 4.11. CUSTODIAL DEATHS AND REFORMS IN JAIL

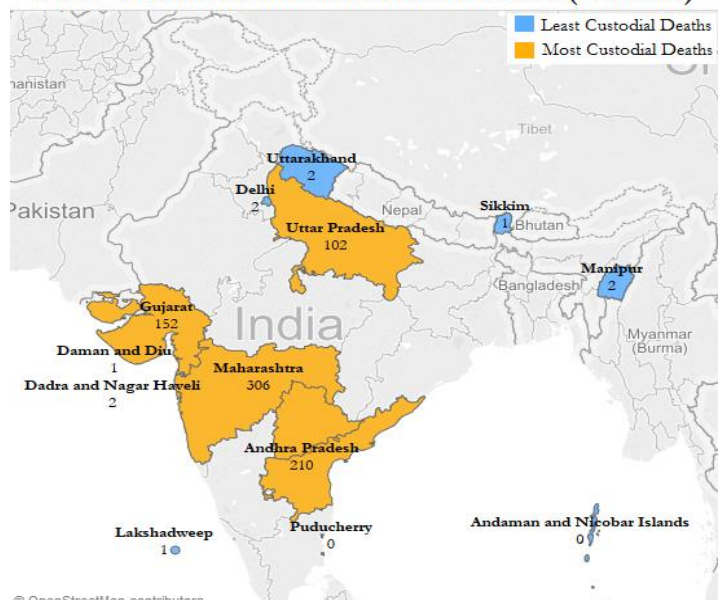
#### Why in news?

A writ petitions in SC was filed against the use of torture as an instrument of “human degradation” by State authorities.

#### Magnitude of the problem

- In 2014, there were five deaths every day, so 35 deaths in a typical week. In the same period, the death rate inside prisons rose by 42 per cent.
- Ninety per cent of these deaths were recorded as ‘natural’ and ‘others’, but what constitutes ‘natural’ and ‘others’ in a custodial set-up is questionable.

States With Most And Least Custodial Deaths (2001-2013)



- From 1995 to 2014, 999 suicides were reported inside Indian prisons. Tamil Nadu alone has seen 141 of them.

### Solutions

- **Accountability:** The only way to thwart what goes on in these institutions is to make them accountable.
- **Surveillance:** Supreme Court last year ordered to install CCTV cameras in all the prisons in the country.
- **Monitoring:** Prison monitors are mandated to regularly visit jails, listen to prisoners' grievances, identify areas of concern, and seek resolution. These visitors include magistrates and judges, State human rights institutions, and non-official visitors drawn from society.
- **Psychological:** Providing counselling to inmates is crucial for them to deal with the ordeal they undergo in custody.
- **Registering and reporting cases:** File FIR and report all cases of custodial death to the NHRC within 24 hours of their occurrence.
- **Guidelines:** NHRC has repeatedly issued guidelines to prevent and respond to custodial deaths. It is time for the State governments to start taking these guidelines seriously.

## 4.12. THE CIVIL ASPECTS OF INTERNATIONAL CHILD ABDUCTION BILL, 2016

### Why in news?

- Union ministry of women and child development (WCD) has drafted the Civil Aspects of International Child Abduction Bill, 2016, that once approved will facilitate prompt return of any **child under 16 who has been "wrongfully removed to or retained in other state which is not his/her habitual residence."**
- The bill will provide an enabling legislation to implement the provision of the **Hague convention**.

### Features of the bill

- The draft mandates setting up the Central Authority who shall be an officer of the Central Government not below the rank of **Joint Secretary** to the Government of India.
- Applications can be made to the Central Authority for assistance in securing the return of such child.
- The central authority would have the power to decide all the cases in this matter.
- The Central Authority shall while inquiring into any matter referred to have all the powers of a civil court.
- The Central Authority may apply to the High Court (**First strike principle**) within whose territorial jurisdiction the child is physically present or was last known to be present for an order directing the return of such child.
- The central authority may exchange information relating to any such child, with the appropriate authorities of a Contracting State.
- The Central Authority shall submit an annual report to the Central Government through the Ministry of WCD.

#### About Hague convention

The Hague Convention seeks "to protect to protect children internationally from the harmful effects of their wrongful removal or retention and to establish procedures to ensure their prompt return to the State of their habitual residence, as well as to secure protection for the rights of access."

Ninety-four states are party to the Hague Convention on Civil Aspects of International Child Abduction.

India is not a signatory to the Hague Convention. A country has to have a domestic law in place before it can become a signatory.

### Way forward

- The bill can be further improved on the lines of other countries and their experience. In the US and Europe, inter-parental child abduction is a serious offence where the accused parent can go to jail on charges of abduction.
- The bill is a right step in direction towards ending the trauma for children facing this issue. It should be discussed and debated and made into a law as soon as possible.

## 4.13. AARAMBH INITIATIVE

### Why in news?

It is the country's first-ever hotline to curb sexual abuse of children through the Internet and to remove child pornographic content online unveiled.

### About initiative

- **Aim:** To eliminate the scourge of online child pornography and further the cause of child protection in online spaces.
- It is a network of organizations and individuals working on child protection in the country, has collaborated with the U.K.-based Internet Watch Foundation (IWF).
- The hotline in India will be hosted on aarambhindia.org and will enable users to report child sexual abuse images and videos in a safe and anonymous environment.
- It is a simple, accessible form (available in Hindi & English) that any informed user who stumbles across sexually explicit imagery of a child on the public internet can use to report the content. Latter it will be started in other languages.

## 5. SCIENCE AND TECHNOLOGY

### 5.1. GSLV F05 AND INSAT 3DR

- ISRO's GSLV F05 spacecraft has successfully placed INSAT 3DR satellite into a Geostationary Transfer Orbit (GTO) for eventually stationing in geosynchronous orbit.
- **INSAT-3DR:**
  - ✓ It is an advanced weather satellite which is expected to provide a variety of meteorological services to the country.
  - ✓ It can provide imaging in Middle Infrared band to provide night time pictures of low clouds and fog.
  - ✓ It can also provide Imaging in two Thermal Infrared bands for estimation of Sea Surface Temperature (SST) with better accuracy.
- **GSLV F05:**
  - ✓ **GSLV-F05** was the tenth flight of India's Geosynchronous Satellite Launch Vehicle.
  - ✓ This is the third successful launch with the indigenous cryogenic engine in GSLV.
  - ✓ It is a three-staged vehicle and cryogenic engine is used in the third and final stage. GSLVs are used to carry heavy satellites (usually 2 to 2.5 tonnes) into Geostationary Transfer Orbit.
- **Significance**
  - ✓ It was the first operational flight of GSLV carrying Cryogenic Upper Stage.
  - ✓ A successful launch will make ISRO engineers more confident about the GSLV-MkIII.
  - ✓ This successful launch will increase ISRO's market value and confidence in her satellite capabilities.
  - ✓ INSAT-3DR satellite continues the mission of the INSAT-3D satellite, which was launched in 2013.
  - ✓ INSAT 3DR will be able to map vertical changes of humidity, temperature and ozone content in Earth's atmosphere. Thus enhancing nation's meteorological capabilities.

### 5.2. PSLV SUCCESSFULLY LAUNCHES 8 SATELLITES

#### Why in News?

- ISRO (Indian Space Research Organisation) launched eight satellites in orbit in longest ever launch mission.
- It is for the first time that satellites in two different orbits were placed by the same rocket, PSLV-C35 ( Polar Satellite Launch Vehicle).
- There was one weather satellite, SCATSAT-1 and seven others.

#### More on the Launch

- The advanced weather satellite was placed in polar sun synchronous orbit at an altitude of about 730km.
- SCATSAT-1 will now succeed the now defunct Oceansat-2 satellite launched in 2009.
- The data sent by the satellite SCATSAT-1 will help provide weather forecasting services.
- The rest of the seven satellites include PRATHAM from IIT Bombay and Pisat from PES University, Bangalore.
- There were five international customer satellites from Algeria, Canada and United States.

#### Challenges

- The main challenge was to shut down and restart the fourth-stage engine called **multiple burn technology**.
- This was to be done twice within a short span of time in a cold and low-gravity environment and letting it coast further.
- However, ISRO has demonstrated this technology in its two previous PSLV launches.

#### Significance

- Mastering the technology means that ISRO can now launch satellites from the same rocket thereby saving huge amount of money.
- It will also facilitate the launch of more commercial satellite in future.



## 5.3. RIGHT TO PHOTOCOPY

### Why in news?

Delhi High Court handed out a landmark verdict for IP and Access to Knowledge, holding that the educational **exception under Section 52(1)(i)** – the reproduction of a work by a “teacher/pupil in the course of instruction” – of the Copyright Act was broad enough to cover the photocopying and creation of course packs.

### Arguments supporting Delhi HC verdict

- To balance copyright protection with public interest in ensuring access.
- Ensures affordable access to expensive foreign quality educational material.
- Already Section 52(1) of copyright protection permits making of copies of literary works by a teacher or pupil in the course of instruction. Photocopying is just an extension as the material is mostly limited to university campus.

### Arguments against

- Sidelines the efforts of writers and publishers and deprives them of livelihood, undermining the principle of natural justice.
- Commercial loss to publishers: If reputed publishers feel there is insufficient copyright protection, they may back out of Indian educational market. This will lead to less access to international knowledge in the long term.
- Humanities: Besides general neglect of these subjects in Indian universities, humanities may be further affected. As right to photocopy is allowed, less resources will be spent by the publishers in these areas.
- The judgement may be inconsistent with our IPR policy.

### Way forward

- Balance between IPR and access issues: This will help creativity and intellectualism flourish in our society attracting intellectuals from over the globe to India and at the same time help achieve affordable access to quality education raising our educational standards.
- Provide easy access to public libraries as well in educational institutions with such educational material
- Monetize on photocopying for course-packs by having universities or photocopy shops purchase licences whereby publishers would be paid every time a course-pack was sold.

## 5.4. NIDHI

- NIDHI (**National Initiative for Development and Harnessing Innovations**) is an umbrella programme pioneered by the Department of Science and Technology
- It works towards nurturing knowledge-based and technology-driven ideas and innovations into successful start-ups.
- It also aims to provide technological solutions to the pressing needs of the society and create new avenues for wealth and job creation.
- NIDHI, by design connects and strengthens all the links of the innovation chain- scouting, sustaining, securing, scaling and showcasing.
- The key stakeholders of NIDHI includes various departments and ministries of the central government, state governments, academic and R & D institutions, mentors, financial institutions, angel investors, venture capitalists, industry champions and private sectors.
- Components of NIDHI that support each stage of a budding start-up are:
  - ✓ PRAYAS (Promoting and Accelerating Young and Aspiring Innovators & Start- ups), which aims to support innovators to build prototypes of their ideas by providing a grant up to Rs.10 lakhs and an access to Fabrication Laboratory (Fab Lab).
  - ✓ The Seed Support System which provides up to One Crore rupees per start-up and is implemented through Technology Business Incubators.
- With a view to drive the innovation and start-up centric new initiatives in a scaled up manner for its wider outreach across the country, a 450% increase in allocation (Rs. 180 crores) has been made in the Department's budget.

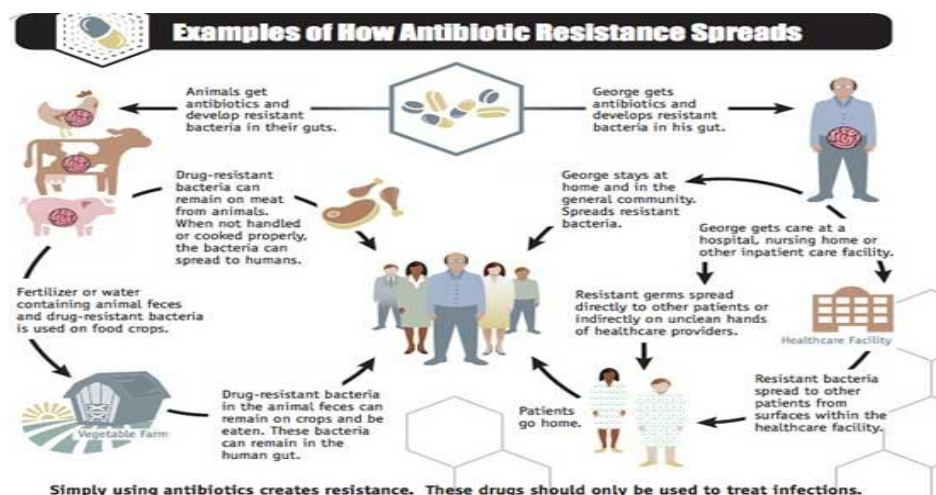
## 5.5. ANTIBIOTIC RESISTANCE

### Why in News?

- A major study has found that neonates in India are increasingly dying due to alarming degree of drug resistance after being infected at birth facilities within 72 hours of their birth.
- The study found that nearly 26 percent of babies with sepsis died due to multi-drug resistance which made the disease untreatable.

### Background

- India has become the focal point for drug resistance so much so that a new bacterium that was found to be resistant to a wide spectrum of antibiotics was named New Delhi-Metallo-Beta-Lactamase 1 in 2008.
- Individuals across all ages are highly drug resistant due to dreadful sanitation conditions (open defecation and untreated sewage systems) and uncontrolled use of antibiotics.
- Bacteria easily spread and thrive in India in humans, agriculture and livestock.
- One of the major problems that the country is facing is today AMR (Anti-microbial Resistance) is the treatment of TB.



### What Has Been Done?

- In February, 2016, India launched the Red Line campaign. Under this campaign prescription only antibiotics were marked with a red line to curb irrational use.
- The government has also backed it up with a communication campaign so as to create awareness that red line medicines should not be taken without prescription.



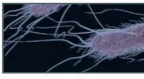

## 5.6. ANTI-MALARIA BATTLE

### Why in News?

- Scientists have discovered a new compound named *bicyclic azetidine series* that was found to act on all three stages of the malaria parasite, according to a study published in the journal Nature.

### About The Discovery

- The compound was found to cure the disease with a single, low dose treatment.
- Also, it can provide prophylaxis; prevent disease transmission both in lab and in animals.
- The compound works by targeting the parasite's protein translation machinery. Protein translation is vital at every stage of the plasmodium life cycle.
- Since protein translation is quite vital for the parasite's functioning, mutation is quite unlikely. Therefore, there are less chances of parasite developing drug resistance against the compound.
- This discovery can be a stepping stone in the treatment of the disease and will also pave way for more therapeutic arsenals in the coming year.

A PUBLIC HEALTH SCORE		
DeNIS study looked at 13,530 infants in ICUs		
		<ul style="list-style-type: none"> <li>Multi-drug resistance to Acinetobacter was found in <b>82 per cent</b> of the newborns</li> </ul>
		<ul style="list-style-type: none"> <li>Resistance to Klebsiella was found in <b>54 per cent</b> and E. coli in <b>38 per cent</b></li> </ul>
<ul style="list-style-type: none"> <li>Three 'superbugs' (pic) were linked with more than half the infections in the infants</li> </ul>		
<ul style="list-style-type: none"> <li><b>56,524</b> newborns in India die each year from microbial resistant bacteria</li> </ul>		

## 5.7. MAKING BRACKISH WATER POTABLE

### Why in News?

- Researchers at IIT Madras have devised a method that can convert brackish water into potable water in less than 12 paise per litre.

### What is it?

- Researchers used a stack of tissue paper to make graphene.
- Graphical electrodes were then covered with graphene.
- The electrodes are then dipped in brackish water.
- A potential of 1.8 volt is applied to the electrodes, the water gets deionised to become potable water.

### Pros

- Brackish water turns into potable water with less than 500 parts per million (ppm) of sodium chloride which is less than permissible limit for drinking water.
- Filters will last 10 years making the invention highly feasible.
- The process is not only cheaper than reverse osmosis but also saves a lot of water.
- Reverse osmosis is an energy intensive procedure and cause 60-75 percent of the water to be rejected as waste.
- The average water wastage in case of **capacitive deionisation** is only 25 percent.
- The process shows great promise for solving the problem of water scarcity.

## 5.8. DNA: DATA STORAGE

- A team from Microsoft and the University of Washington along with Twist Bioscience, a San Francisco start-up, reached a milestone by successfully storing 200 MB of digital data in DNA.
- DNA has been carrier of genetic data for generations.
- Significance
  - ✓ DNA possesses some of the attractive properties important for storing data.
  - ✓ It is very stable; synthetic DNA can remain intact for thousands of years.
  - ✓ DNA is never going to become obsolete as it holds blueprint of the living system.
  - ✓ It has high packing density- 1 kg of DNA is enough to store all the data available in the world.
- Limitations
  - ✓ Encoding and decoding data in DNA is a complex task, it requires more time and money.
- However this limitation is fast erasing as with technological advancements storing data into DNA structure will only become cheap, quick and less complicated.

## 5.9. GENES BEHIND INTELLECTUAL DISABILITY

### Why in News?

- Researchers have for the first time identified 30 recessive inherited genes that play a role in intellectual disability as well as other brain disorders, according to the journal, Molecular Psychiatry.
- The research was carried out by scientists from Radboud University Medical Centre in Netherlands and University of Health Sciences in Pakistan.
- The research was carried out for five years and across three continents.

### Intellectual Disability: Fact File

- Intellectual disability or ID (previously known as mental retardation) limits an individual's intellectual ability and practical skills.
- As many as 213 million people are affected by neuro-developmental disorder.
- It is measured by intelligent quotient below 70.
- Today, close to 1-3 percent population has some form of ID.

- Half of ID can be linked to poor nutrition and environmental causes while the other half is due to genetic disorders such as gene mutations.
- This research can be applied for DNA screenings and determine the possibility of a couple producing an ID child.

## 5.10. OSIRIS-REX

- NASA has successfully launched a space probe - OSIRIS-Rex (Origins, Spectral Interpretation, Resource Identification-Regolith Explorer) for a near earth asteroid Bennu.
- This will be NASA's first asteroid sampling mission.
- This spacecraft will reach Bennu by 2108 and then without landing on the asteroid capture 2 ounces of dust with its robotic arm and then begin its return trip to earth.
- This \$1 billion mission will help scientists unravel how life began on Earth, how the solar system formed, and how to protect our planet from stray asteroids like Bennu.

## 5.11. SELF-DRIVEN CARS

### Why in News?

- nuTonomy, a small firm, made history of sorts when it introduced a self-driving taxi service in Singapore.
- These cars powered by AI (Artificial Intelligence) can revolutionize the transport industry worldwide.

### Significance

- They have the potential to reduce road accidents especially the ones caused by the human driver errors.
- They can reduce labor cost and thus in turn reduce the cost of travel and transport.
- It would give the interior of the cabin greater ergonomic flexibility apart from large unoccupied spaces.
- There would also be an improved ability to manage traffic flow, combined with less need for traffic police, vehicle insurance; or even road signage.
- Overall they will have a positive impact on the economy, transportation efficiency, and on public health and safety of transport.

An autonomous car (driverless car, self-driving car, robotic car) is a vehicle that is capable of sensing its environment and navigating without human input. Autonomous cars can detect surroundings using a variety of techniques such as radar, lidar, GPS, odometry, and computer vision.

### Limitations

- Issues with liability concern: In case of an accident how a legal liability will be decided. Will be responsibility put on the manufacturer or the software developer or the user? The question is debatable and remains unanswered.
- Unemployment: Driver-less cars especially taxis will create large scale unemployment among the existing cab and other drivers.
- Safety concern: Issues like technology failure and cyber-attacks can pose huge threat to safety and security of the passengers and public at large.
- Ethical issue in case an autonomous car's software is to choose between whom to hit in case of an unavoidable crash.

## 5.12. WORLD'S LARGEST RADIO TELESCOPE BEGINS OPERATIONS

### Why in News?

- World's largest telescope, **Aperture Spherical Telescope or FAST** began operations from China's Guizhou Province.

### What is it?

- Measuring 500 metres in diameter, the telescope is stationed in a natural basin in the county of Pingtang.

- It took five years and an investment of \$180 million to complete.
- The telescope surpasses the 300 meter Arecibo Observatory in Puerto Rico.
- **Significance**
  - ✓ The telescope would search for signals from stars and galaxies as well as extra-terrestrial life.
  - ✓ The project demonstrates China's rising ambitions in space.

### 5.13. FOSSILS FOUND POINTS TO LIFE ON EARTH 3.7 BILLION YEARS AGO

#### Why in news?

- Scientists have found fossils of a tiny structure called stromatolites in ancient sedimentary rock along the Greenland's ice caps.

Stromatolites are calcareous mound built up of layers of lime-secreting cyanobacteria and trapped sediment, found in Precambrian rocks as the earliest known fossils.

#### Significance

- The finding has push back the date of origin of life on earth by hundreds of millions years. (Note: In geological terms, earth was originated 4.5 bn years ago)
- The structure and geology of the rock in which the stromatolite fossils has been found points to a rapid emergence of life on earth.
- The finding will also through light on the kind of earliest form of life that existed on earth and how they evolved.
- The finding will have great implication on our understanding of life on Mars and other planets. Probably a very basic life might have existed of Mars.

### 5.14. MORE THAN A BILLION STARS MAPPED

#### Why in news?

- A European satellite named **Gaia space probe** has mapped the precise positions and brightness of more than 1.14 million stars in the Milky Way.
- It is being lauded as the most accurate three dimensional map of the Milky Way.
- It has also pinned down the distances and motions of more than 2 billion stars.

#### More about the Mission

- **Gaia**, the European space probe was launched in 2013 and started collecting data in July 2014.
- It was launched to log the position, colour and brightness of a billion stars sending it an orbit around the sun, close to 1.5 million km from Earth.
- It has been able to map the star with so much accuracy thanks to its twin telescopes and a billion pixel camera.
- Gaia has not only mapped the distribution of the stars but also the neighbouring Small and Large Magellanic Clouds.



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## 6. SECURITY

### 6.1. NATIONAL CYBER COORDINATION CENTRE (NCCC)

**National Cyber Coordination Centre** is a proposed cyber security and e-surveillance agency in India. It is intended to screen communication metadata and co-ordinate the intelligence gathering activities of other agencies.

- Government's cyber security arm **Indian Computer Emergency Response Team (CERT-In)** will be the main agency handling the establishment of NCCC.
- This Centre will have top experts from the field and it will be run like similar organisation in other countries such as the US, the UK, France, Germany, etc.
- NCCC is expected to coordinate between intelligence agencies, specifically during network intrusions and cyber-attacks.
- Its mandate may also include cyber intelligence sharing among agencies.
- Apart from monitoring the Internet, the NCCC would look into various threats posed by cyber attacks.
- The NCCC will facilitate real-time assessment of cyber security threats in the country and generate actionable reports/alerts for proactive actions by the concerned agencies.

#### Concerns with NCCC

Some have expressed concern that the body could encroach on citizens' privacy and civil-liberties, given the lack of explicit privacy laws in the country.

### 6.2. MORMUGAO

An indigenously built warship equipped with a range of high-tech missiles was launched in Mumbai.

- Christened '**Mormugao**', the vessel has been built by government-run Mazgaon Dock Shipbuilders Ltd (MDL) and belongs to **Visakhapatnam class of ships** being constructed under **Project 15B**.
- The Project 15B missile destroyers are modern warships equipped with the latest weapons package, in continuation of the lineage of the highly successful Delhi and Kolkata Class ships.
- Fitted also with the **Barak-8 long-range missiles**, Mormugao has been named after the picturesque port in Goa.
- The warships can achieve a maximum speed of 31-32 knots and are equipped with surface-to-surface missiles, surface-to-air missiles, anti-submarine launchers, multi mission radar for surveillance along with medium range air/surface surveillance radar and other advanced electronic warfare and decoys.

#### The Visakhapatnam class (Project 15B)

The **Visakhapatnam class** (Project 15B) is a class of stealth **guided missile destroyers** currently being built for the Indian Navy. Based on the Kolkata-class design, the Visakhapatnam class will be an extensively improved version.

- Project 15B destroyers will feature enhanced stealth characteristics as well as incorporate state of the art weaponry and sensors including the long range **Barak 8 surface-to-air missile**.
- Project 15B will retain the same hull as 15A Kolkata-class destroyers, but there will be significant changes in the superstructure that will improve the ship's stealth characteristics.
- After **Visakhapatnam and Mormugao**, the next in the queue is '**Paradip**' followed by another warship expected to be named after a coastal city of Gujarat.

### 6.3. URI ATTACK

On September 18, a Jaish-e-Mohammad fidayeen group attacked the administrative station of the Indian Army's 12 Brigade, killing 19 soldiers. Data on GPS sets seized from the slain terrorists suggested Pakistan links. Fidayeen militants stormed an Army camp in Uri near the Line of Control (LoC). It was the largest attacks on the Army in Kashmir by militants "belong to Jaish-e-Mohammad tanzeem,".

## Investigation

- The National Investigation Agency (NIA) has started the investigation of the Uri terrorist attack.
- The NIA would collect DNA samples of the terrorists and look at the commonalities in the Uri and the Pathankot air base attacks in January.

## Vacuum on the intelligence

- South Kashmir has been simmering with protests since the killing of Burhan Wani, Hizbul Mujahideen's commander, in an encounter in July.
- The three-month unrest has left a **huge vacuum on the intelligence front** as several areas were put under curfew, affecting the movement of informers.
- The continuing unrest in Kashmir is affecting the **Army's routine movements and operations** as well as intelligence gathering.

## Spike in infiltration

- Not only violent protests, the Valley has also witnessed an **unprecedented spike in infiltration** bids since the killing of Hizbul Mujahideen commander Burhan Wani
- Infiltrating LeT militants were trying **to rope in local boys to emerge as the most influential** militant group in the Valley, capitalising on the rising anger and desperation among the youth.

## India's response to Uri attack

### A. Diplomatic

In the wake of the Uri attack, Indian government has launched diplomatic offensive to isolate Pakistan internationally and in its neighbourhood.

- India has decided to pull out of the SAARC summit in Islamabad this November, with Afghanistan, Bhutan and Bangladesh deciding to follow suit.
- **India Summons Pak Envoy:** India's foreign secretary summoned Pakistan High Commissioner and shared evidence of Pakistani involvement in the Uri attack, which Islamabad rejected.
- India has decided to review **Indus Water Treaty (IWT)**. Officials made it clear that the IWT will hold, at least for the moment. Instead, the Centre drew up a list of measures to optimise use of the Indus waters that India has so far failed to do.
- Review of the **Most Favoured Nation (MFN)** provisions further indicates that government is determined to demonstrate that it is not business as usual.
- In her address at the **United Nations General Assembly**, foreign minister took on Pakistan on the issue of terrorism. She told the world's nations that all India has got in response for its peace overtures were cross border attacks. She also took up the issue of **human rights violations in Balochistan**.

### B. Military response

India has carried out surgical strikes targeting **"launch pads"** for terrorists across the Line of Control (LoC). It is first time India has openly declared that it had carried out surgical strike in side LoC. Similar strike was carried out along Indo-Myanmar border by Indian army against NSCN (K) militants in 2015.

- Indian commandos entered three kilometres across the Line of Control and conducted the 'surgical strikes' in Bhimber, Hotspring, Kel & Lipa sectors. The location was 500 meters-2 Km across LoC
- 7 terror launch pads were destroyed during the surgical strike .
- The strike across the LoC was reportedly carried out by Para Commandos and Ghatak platoons of the Indian Army.

## What constitutes surgical strikes?

A surgical strike in military terms is an operation that is intended to take out a specific target, with no or limited collateral damage.

- In Army's terms, it is a fast operation carried out by a small unit, or it could be a well-aimed missile. By the Air Force, it can be an aircraft targeting a single building or vehicle, as opposed to carpet bombing an area.

## Pakistan response

Pakistan has denied that any surgical strike took place in side PoK. The top spokesperson for the Pakistani military slammed the Indian account of its action as “totally baseless and completely a lie”.

## 6.4. PAKISTAN STATE SPONSOR OF TERRORISM DESIGNATION ACT OF 2016

A new bill moved in the U.S House of Representatives in the wake of the terrorist attack on an Army base in Uri in Jammu and Kashmir prods the administration to designate Pakistan a state sponsor of terrorism

- The bill lists **Inter-Services Intelligence (ISI)** involvement in supporting terrorism in Afghanistan and quotes the Department of State’s 2016 Country Reports on Terrorism that “Pakistan has not taken sufficient action against groups such as **Lashkar-e-Taiba (LeT)** and **Jaish-e-Mohammad (JeM)**, which continued to cooperate, train, organise, and fundraise in Pakistan.
- The bill said, with ISI support, **Haqqani operatives** planned and conducted various attacks against U.S. in Afghanistan.
- The bill also cites a 2012 NATO report that indicated that the Afghan Taliban is directly assisted by the Pakistani security services.
- The bill says the Government of Pakistan, and the ISI in particular, provides support and a safe haven to groups designated as foreign terrorist organizations by the U.S.
- While the U.S. has designated **Iran, Syria and Sudan** as “state sponsors of terror”, the **U.N. designates entities and not states.**

## 6.5. ARMY DESIGN BUREAU

### Why in news?

Indian Army formally announced the establishment of the Army Design Bureau.

### What is it?

- It will act as an interface of the Indian Army that will provide a better understanding of the Army’s requirements
- It will act as single point contact to the academia, research organisations and the industry for developing high tech defence products.

### Why is it required?

- The idea is to bring together academic institutions and the industry to develop indigenous knowhow and for this the Army is open to sharing parts of its long-term plans.
- It will help in firstly fast tracking our procurement process and secondly help in modernisation.
- It will help to indigenise procurements and reduce import dependence as part of the government’s ‘Make in India’ initiative.

# 7. ENVIRONMENT

## 7.1. OCEAN WARMING AND ITS EFFECTS

### Why in news?

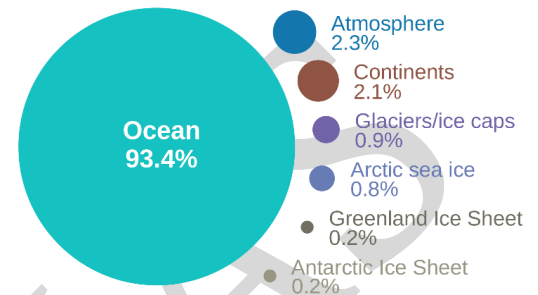
- Recently a research report “*Explaining ocean warming: causes, scale, effects and consequences*” released by the International Union for Conservation of Nature (IUCN) – has shown the effects of ocean warming.

### Observations-Concerns

#### Oceans Impacted

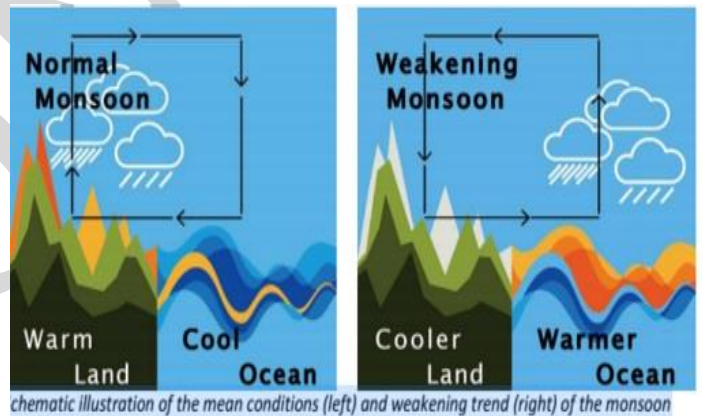
- World’s waters have absorbed more than 93 per cent of the enhanced heating from climate change since the 1970s, curbing the heat felt on land but drastically altering the rhythm of life in the ocean.
- Ocean has been shielding us and the consequences of global warming.

### Where is global warming going?



#### Food security

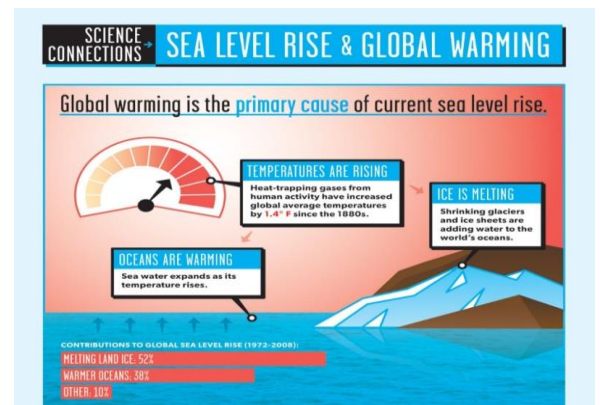
- Food security of India and several other major key food producing countries are threatened by changing weather patterns due to warming of the oceans, which may well be the “greatest” hidden challenge for the present generation
- Rainfall patterns affected: already been changes to precipitation patterns in a number of areas of the planet resulting from large-scale atmospheric tele-connections with ocean warming
  - ✓ Increased rainfall in some mid-latitude and monsoon areas and decrease over various sub-tropical regions.
- Yield is impacted:
  - ✓ Correlations between wheat and maize yields with the NAO (North Atlantic Oscillation) and PDO (Pacific Decadal Oscillation), so changes in these ocean-focused atmospheric patterns have direct implications on food production.
  - ✓ Similarly *ceteris paribus*, increasing temperatures tend to reduce rice, pulses and maize yields.
- Global warming is making the spread of diseases among animals and humans. This is threatening food security across the planet



### Effects on monsoon (refer infographic)

#### Impacts on eco-system

- Changes in the ocean are happening between 1.5 and 5 times faster than those on land. Such range shifts are potentially irreversible
- Climate change is altering the hibernation periods of animals, disturbing their breeding patterns and metabolism
- Large-scale climatic anomalies affecting marine predator foraging behaviour and demography
  - ✓ Proliferation of East Antarctic Adélie penguins in response to historical deglaciation



## Fisheries

- At sea, warming temperatures will cause changes to the abundance and range of marine species used for food.
- Huge implications for:
  - ✓ The billion people who depend on fish for their principal source of protein and
  - ✓ Fishing and aquaculture industries linked to this harvesting

Along with ocean warming, we also have increasing atmospheric temperatures.

- According to NASA's records, July month was the hottest month ever on the planet since we started taking records back in 1880. But now NASA has updated '**the record warm to August**'. **This continued a streak of 11 consecutive months dating back to October 2015.**
- Generally, the seasonal temperature cycle typically peaks in July, But unusually August 2016 wound up tied with July 2016 for the warmest month ever recorded.

**This is causing de-glaciation, and rise of sea levels. According to Danish Meteorological Institute (DMI)**

- Around 12% of the ice sheet was found to be melting almost one month earlier than the previous top three dates for when more than 10% of the ice had begun to melt.
- The average summer temperature was 8.2 degrees Celsius (46.8 degrees Fahrenheit) in Tasilaq on Greenland's southeast coast, the highest since records began in 1895.
- The Greenland ice sheet, a potentially massive contributor to rising sea levels, lost mass twice as fast between 2003 and 2010 as during the entire 20th century, researchers said in December.
- According to study by **University of Washington**: This year, Arctic sea-ice has reached the second lowest extent ever recorded by satellites.
  - ✓ A yacht of the Polar Ocean Challenge was able to sail the Arctic's Northwest passage in only 14 days as it was "almost totally ice free"

## Effect on polar bears according to a new study

- Sea ice season across all polar bear subpopulations in the Arctic has reduced by seven weeks since 1979,
- Polar bears depend on sea ice to hunt seals, their main prey. They use the ice as a platform to ambush seals at breathing holes or break through the ice to reach their dens.
- The findings of the study are being used by the International Union for Conservation of Nature to decide the conservation status of the species.

## 7.2. WORKING OF BIODIVERSITY ACT 2002

### Why in news?

- The National Green Tribunal (NGT) had recently asked for action against top State officials who had failed to respond to an application filed before the tribunal for effective implementation of the act.
- For the first time since the enactment of the Biological Diversity Act, 2002, States have now been forced to look into its implementation.

### Critical appraisal of the Act

- India's famed "**green judge**", **Justice Kuldip Singh**, had observed in **ICELA v. Union of India, 1996** case that "enacting of a law and tolerating its infringement is worse than not enacting a law at all". This is typically true for the present state of biodiversity act 2002.
- RTI responses from 15 States have revealed that out of more than **61,000 PRIs, only 14 per cent (less than 1,400) have PBRs (People's Biodiversity Register)**.
- The act has mostly failed in terms of implementation though the act has immense potential to safeguard India's threatened biodiversity.



## Failure of BD Act

This act is the most neglected of India's environmental laws, and one of the least implemented.

- Measures to conserve its rich biodiversity have not been sufficient. Despite many laws in place (Wildlife Protection Act, 1972, Forest (Conservation) Act, 1980, Biological Diversity Act, 2002), the report admits that there is lack of effective enforcement of the laws to protect biodiversity.
- Much of India's forestland has been given away for industrial and infrastructural activities.
- Over 40 per cent of India's forests face different levels of degradation. The plan blames domestic demand for timber, fuel-wood and grazing for the crisis. About 80 per cent of the forest area faces heavy grazing while fire affects 50 per cent of the forest cover.
- India now has just 12 varieties of food, which provide 80 per cent of the food energy. Changing lifestyles have affected variety, taste and nutritional value of food.
- Agricultural biodiversity has been declining in India with more number of crops being commercially cultivated. Number of varieties grown under different agricultural systems has also fallen. Over 300,000 samples of indigenous plants kept in the National Gene Bank have gone out of cultivation.
- Nearly 140 native breeds of farm livestock are facing survival threat. Low genetic diversity in natural conditions has affected the evolutionary development of indigenous wild species.
- About 90 per cent of India's traditional herbs are being traded. India's share in the global complementary medicine market valued at us \$62 billion is only 0.3 per cent, out of which 70 per cent comes from the export of raw materials.
- Grasslands, rivers, wetlands and coastal and marine ecosystems are under threat causing widespread damage in support system for various species.
- Grassland species like the Great Indian Bustard are under threat.
- With just 180 left across the world, the gharial (*Gavialis gangeticus*), a riverine species, is in the critically endangered category of the Red List of the International Union for the Conservation of Nature and Natural Resources (iucn).

## Way forward

- The NGT action shows the right direction of implementing provisions of BD act with regard to BMCs and PBRs.
- PBRs could be an effective tool to counter false and misleading statements given in forest diversion proposals and EIA reports.
- They could help a community present the facts before the government in order to highlight the 'true value' of the ecological entity proposed to be 'sacrificed'.
- Steps should be taken towards facilitating in creation and capacity building of BMC's and PBRs in all the Panchayats.

## 7.3. AVIATION CLIMATE DEAL

### Why in News?

- **International Civil Aviation Organisation** approved a landmark accord at its assembly session in Montreal to curb aviation pollution.

### More about the Deal

- The proposal includes a mechanism for a '**carbon emission tax**' on airlines in order to offset emissions in the aviation sector.
- The agency's carbon offsetting system is expected to slow the growth of emissions from commercial flights costing the industry less than 2 percent of revenues.
- The accord requires participating countries to reduce emission by 2020 and limit it after it comes into effect from 2021.
- Participation in the deal is voluntary from 2021 to 2026. The deal becomes mandatory from 2027.



- Countries like US and China have agreed to go with the accord while Russia has refused to participate during the voluntary period.

#### India's Stand

- Although India has ratified the Paris Climate Deal, it has not agreed to the Aviation Climate Accord.
- India feels that reducing "emissions" in the sector would be injustice to the country's growing economy.

### 7.4. IGI IS ASIA-PACIFIC'S FIRST 'CARBON NEUTRAL' AIRPORT

#### Why in news?

- The Indira Gandhi International Airport in Delhi has become Asia-Pacific's only and one of the world's few airports to achieve a "**carbon neutral**" status.
- Currently, 25 airports in the world, most of them in Europe, have earned carbon neutral status.

#### Importance of the tag

- The Indira Gandhi International airport boasts of **green buildings, solar power plants, rainwater harvesting system** etc., which have helped reduce and offset carbon emissions.
- The airport has taken a series of measures to reduce carbon footprint, including setting up of a 7.84MW solar power plant.
- This would mean, Delhi Airport will get highest level of certification "**level 3+ neutrality**" available to airports across the world.

#### Way forward

- This achievement will set a new benchmark for other airports in our region.
- The achievement is a good step to showcase progress of India and its commitment towards clean energy and new technologies.
- There should be enhanced focus on **energy conservation** and exploring **alternative solution for generating green energy**.
- IGI Delhi Airport now aims to increase its solar power generation capacity to **20MW** by 2020.



#### What is carbon neutrality?

- Carbon neutrality occurs when the net carbon emissions over an entire year are zero or when the airport absorbs or offsets the same amount of emission that was generated.
- This achievement is accredited by ACI under Airport Carbon Accreditation that monitors the efforts of airports to manage and reduce their carbon emissions.

### 7.5. WHO STUDY ON AIR POLLUTION LEVELS

#### Why in news?

- Fine particulate matter from industries, cars and biomass is causing premature mortality as observed by WHO.
- A study conducted by the World Health Organisation and made public in September 2016 revealed that air pollution could have killed at least 600,000 Indians in 2012.
- This is about a fifth of the 3 million who died worldwide because they were exposed to fine particulate matter (PM2.5).

#### Method of the study

- The study findings are based on data derived from satellite measurements, air transport models and ground station monitors for more than 3000 locations, both rural and urban.
- It also relies on publicly available national data on pollutant levels.
- It is developed by WHO in collaboration with the University of Bath in UK.

## Key points from the study

- **India comes just behind China** which witnessed an estimated 800,000 deaths in same period, according to study.
- The detailed study for India suggested the reason for deaths in absolute number as shown below.
  - ✓ 2,49,388 Deaths due to Ischemic heart disease
  - ✓ 1,95,001 deaths due to stroke
  - ✓ 1,10,500 deaths due to Chronic Obstructive Pulmonary Disease (COPD)
  - ✓ 26,334 deaths due to lung cancer
- According to study, the actual impact of air pollution is a “**conservative figure**,” as it does not include the separate impacts on health from other air pollutants such as nitrogen oxides (NO<sub>x</sub>) or ozone (O<sub>3</sub>).
- According to study, all regions of the world are affected, however, populations in **low-income cities** are the most impacted.
- As per the study, of all of pollutants, **fine particulate matter has the greatest impact** on health. PM 2.5 is responsible for aggravating or is directly responsible for many cardiovascular diseases and lung cancer.

## Significance

There is nothing new to be known about air pollution. But the WHO report serves as an eye opener again. The study points out the level of impact in numerical terms.

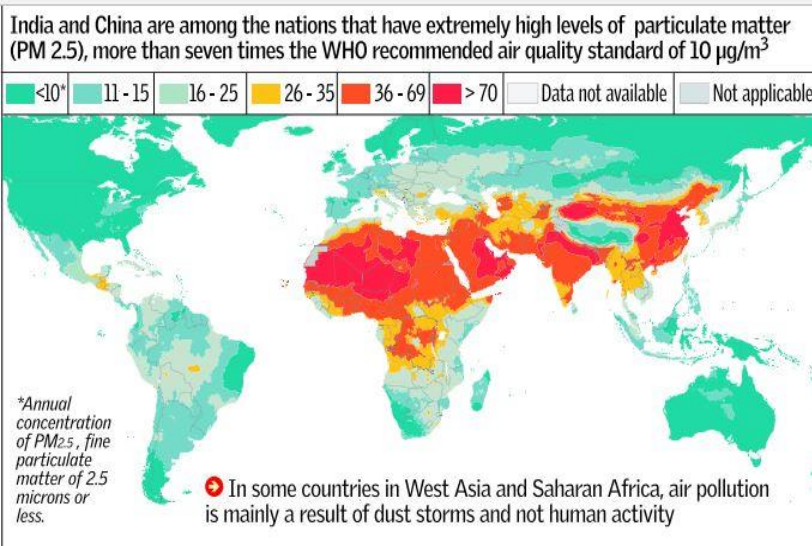
- It shows the degree of neglect and indiscriminate levels of pollution in our country and its adverse impacts.
- This should serve as warning to policy makers and the citizenry about the negative consequences of PM 2.5
- There is a need of collective effort from all the stakeholders to mitigate the impacts of air pollution.

## Way forward

- The forest cover should be protected. Adequate forest cover is essential for maintaining the quality of air.
- Green belts should be created. Such areas should be developed around densely populated cities.
- There should be strict restriction for establishment of large buildings and industries along the Green belt areas.
- Automobile engines should be redesigned in such a way that their emissions cause minimum pollution.

## Major causes of Air Pollution

- Air pollution is caused when air in the atmosphere is filled with particulate matter.
- The largest source air of pollution in cities is from vehicle exhaust fumes.
- Filters that are not changed regularly in your air conditioning units will accumulate dirt and cause the spread of pollutants in the air you breathe inside your home.
- Chemicals and toxic pollutants like sulphur dioxide, nitrogen oxides and carbon dioxide react with water molecules in the atmosphere to produce acid rain. These pollutants come from factories, automobiles and any industrial or manufacturing plants.
- Another source of air pollution is from dust and dirt that goes airborne due to every day labour in the agricultural and construction industry.
- Dust is lifted from tractors working on fields, and from land clearing and general demolition in the construction industry.
- Using household chemicals without adequate ventilation is a major source of indoor air pollution.
- Volcanoes, dust storms, and forest fires are causes of natural air pollution



## Social and Economic Cost of Air Pollution

- A World Bank study revealed that welfare costs and lost labour income due to air pollution amounted to 8.5% of India's GDP in 2013.
- The cost imposed on people living in regions where pollution and environmental degradation is higher.
- According to a joint study by World Bank and University of Washington, total welfare losses between 1990 and 2013 because of premature deaths from air pollution increased by 94%.

- The burning of fossil fuels produces harmful gases and particulate matter that are released into the air. Alternatives to this should be promoted especially green energy technologies.
- Provide cleaner fuels and scientifically designed cook stoves to reduce indoor pollution.
- Industrial areas should be located at a safe distance from the residential areas.
- Forest fires should be checked. Adequate preventive measures should be adopted to protect the forests.
- Cheap devices for controlling air pollution should be developed.

## 7.6. GM MUSTARD

### Why in news?

- Technical sub-committee of India's genetic engineering regulator has concluded that the genetically modified variety DMH-11 (Dhara Mustard Hybrid 11) did not "raise any public health or safety concerns for human beings or animals".
- Regarding this a report was released by the regulator, Genetic Engineering Appraisal Committee (GEAC), which sought suggestions from the public over the next 30 days.

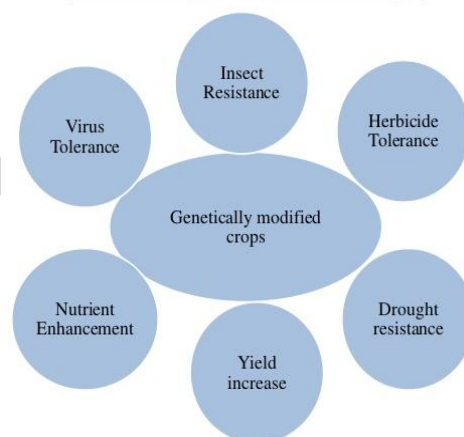
Barnase and Barstar genes are used for engineering male sterility in plants. Targets the TA29 gene.

Bio informatics: is the application of computer technology to the management of biological information.

### Details

- The introduced proteins i.e. Barnase and Barstar are expressed at negligible to non-detectable levels in the edible parts and have been derived from commonly occurring non-pathogenic bacteria.
- None of the three proteins has been shown to be toxic or allergenic through bioinformatics and acute toxicity studies in experimental animals

### Advantages of GM Crops



### Process of approval

- Suggestions from the public will have to be evaluated by GEAC to see if evidence on bio-safety has been ignored.
- If there are no such concerns, the GEAC will have to decide whether to recommend DMH-11 for commercial cultivation.
- The GEAC's recommendation will then have to be approved by the environment minister whose decision will be final.

### Arguments in support of GM mustard

- In 2014-15, India imported 14.5 million tonnes of edible oils valued at \$10.5 billion. Therefore, the need to raise domestic crop yields and cut dependence on imports.
- Country's cotton production has gone up more than 2½ times since Bt hybrids were first planted in 2002. Also, no adverse effects on human have reported (consumption of cotton seed oil, etc).
- We import edible oil from GM crop using countries.
- Delhi University's CGMCP has pledged to distribute the GM mustard for free.

### Key Concerns

- Impacts could GM crops have on the environment and wildlife are not researched properly.
- Insect resistant crops may affect non-target and helpful insects like butterfly, honey bee etc.,
- Also pests and insects could develop resistance to the toxin
- There is also a chance that herbicide resistant plants produce uncontrollable weeds or so called "super weeds"

- They increase the yield but there are concerns about GM crops increasing input costs in a country where there is widespread farmer indebtedness and suicides.
- **Terminator seeds:** One of the major issues with the GM crops is that the biotech companies (despite a global moratorium via UN Convention on Biological Diversity) can resort to the Genetic Use Restriction Technology (GURT) and produce the terminator seeds which makes crops die off after one harvest without producing offspring.
  - ✓ This would force the farmers to buy new seeds for each planting, which reduces their self-sufficiency and makes them dependent on major seed and chemical companies.
  - ✓ Also it is dangerous to keep in the hands of private companies, such technologies which may effect future food security.
- The farmers also oppose the 'seed monopolies', which are causing price distortion and not adhering to government guidelines on price control in case of Bt Cotton.
  - ✓ They are also not being made accountable for the losses due to pest attacks like the recent **pink bollworm**.
- GM crops effect on soil health and soil organisms is not known.
- Effects on plant (and animal) biodiversity is not recorded.
- Human Health may be effected: by inserting genes from organisms which have never been eaten as food, new proteins are introduced into the human and animal food chains. There is concern that these could cause allergic reactions or other health effects.
  - ✓ Many GM crops contain genes which provide resistance to commonly used antibiotics such as ampicillin. There is concern that these genes could be passed from food to bacteria in the guts of humans and animals.

#### Way forward

- An independent and autonomous regulator which is insulated against pulls and pressures (envisioned in the lapsed Biotechnology Regulatory Authority of India Bill)
- A legislation to fix the liability of the seed monopoly is also desired.
- In April this year, CIC asks ministry to make GM mustard bio safety data public under Sec IV of RTI and also Cartagena Protocol on Biosafety. But Ministry was against it. This should be changed as Transparency of data and functioning - is crucial for public and scientific confidence in the GEAC's decision-making process.

## 7.7. DESI GM ALTERNATIVE TO MONSANTO

#### Why in News?

- Indian scientists have developed two new sets of indigenous **transgenic events** in cotton cultivation that is a potential alternative to Monsanto seeds.

#### Highlights

- Scientists at **Delhi University's Centre for Genetic Manipulation of Crop Plants (CGMCP)** have developed two independent 'events' for insertion of the cry1Ac gene.
- **cry1Ac gene** isolated from a soil bacterium **Bacillus thuringiensis** (Bt) and is toxic for American bollworm insect.
- The other promising indigenous GM event is **whitefly-resistant cotton** developed by the **National Botanical Research Institute (NBRI), Lucknow**.
- Scientists have isolated and cloned a gene from an edible fern *Tectaria macrodonta*.
- The gene Tma12 encodes a protein toxic to whitefly.

#### Significance

- The two CGMCP new events will decrease dependence on Monsanto's Bollgard II.
- The levels of cry1Ac protein expression is known to be much higher than that of Bt cotton varieties developed by Monsanto, Bollgard I and Bollgard II technologies.
- The cry1Ac protein expression in the two events declines over the growing season, but the overall level is 2-3 folds higher than MON531, Monsanto's cry1Ac event.



- These events will make the Bt cotton variety much more resistant to bollworm attacks.
- **Higher protein expression** will also address the growing vulnerability of Bt cotton to pink bollworm.
- Both CGMCP and NBRI events come at a time when there is growing susceptibility of pink bollworm and whitefly in the currently grown Bt hybrids.
- Not only has the total production fallen but also production per hectare.

## 7.8. HERITAGE HEROES AWARD

### Why in news?

- Assam-based ecologist and conservation activist **Bibhuti Lahkar** has become the first Asian to be awarded the prestigious Heritage Heroes Award by the International Union for Conservation of Nature (IUCN).
- He received the award at the IUCN's World Conservation Congress.

### Work of Mr. Lahkar

- He has been working to save the grasslands, flora and fauna of Manas National Park area for the past two decades.
- He currently engaged as Manas Landscape Administrator for Aaranyak, an NGO working for biodiversity conservation in Northeast India.
- He was instrumental in connecting **Manas Wildlife Sanctuary** with the **Royal Manas National Park in Bhutan**.
- He had also conducted a GIS survey of the Manas area and his research findings were highly beneficial in the Manas Tiger Conservation.

### What is Heritage Heroes Award?

The Heritage Heroes award is given by IUCN. It aims to recognise the outstanding efforts of a few brave people, around the four corners of the world, who relentlessly invest efforts to make a difference in the way natural World Heritage sites are conserved, sometimes despite life-threatening situations.

The objective of this initiative is to inspire people to value the importance of natural World Heritage sites and recognise the need to collectively invest in their conservation.

## 7.9. NATIONAL GANGA COUNCIL

### Why in News?

- The Union Cabinet under the chairmanship of PM Narendra Modi has cleared the River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016.
- The Order enforces an institutional structure for policy and implementation and empowers National Mission for Clean Ganga (NMCG) to discharge its functions in an independent and accountable manner.
- A mission status will be granted to the Authority with corresponding power under the Environment (Protection) Act (1986).

### Major Takeaways

- The new council for River Ganga will replace the existing **National Ganga River Basin Authority (NGRBA)** for pollution prevention and rejuvenation of Ganga.
- Setting of an Empowered Task Force that will ensure the existence and implementation of an action plan under various Departments, Ministries and States.
- The NMCG will have a two tier structure with a Governing Council and an Executive Committee.
- The NMCG will comply to the decisions of the National Ganga Council.
- At the state level, State Ganga Committees would be formed for proper implementation.
- Similarly, District Ganga Committees would be formed in each Ganga Bank District and they shall be monitored by the State Committees.
- The special focus of the revamped structure would be to maintain ecological flows in Ganga with an aim to ensure water quality and environmentally sustainable development.
- An innovative model based on Hybrid Annuity has also been approved for fast track creation of sewerage and treatment infrastructure in the Ganga basin.

## Significance

- The NMCG will now have the power to issue orders and also exercise the powers under the Environment Protection Act. It can now fine polluters.
- NMCG will only take action in case of non-compliance when CPCB (Central Pollution Control Board) does not do so.
- CPCB can also take action jointly with NMCG.
- The said infrastructure will ensure ecological flows, abatement to pollution and rejuvenation of the river.
- The authority will also be able to impose restrictions on polluting industries and carry out inspections to ensure compliance.

## 7.10. GANGETIC DOLPHINS

### Why in News?

- Scientists and wildlife conservationist feel that the development of the Ganga under the **National Waterway 1** project is threat to the survival of the **gangetic dolphins**.
- **Ganges River Dolphin** is a sub-species of **river dolphins**, found in the **Ganga and Brahmaputra** rivers.

### Background

- The Centre has planned to develop a **1600-km waterway between Allahabad and Haldia for inland transportation** under a Rs. 4200-crore World Bank-aided project.
- The first phase of the project from Haldia to Varanasi (1300 km) is now underway.
- The NW1 is seen as a logistics gateway for northern India with the potential to reduce traffic congestion.
- The stretch that covers that NW1 is also home to river dolphins.
- There are almost 2500 river dolphins in Ganga and there population is diminishing.
- River dolphins have been classified as **“endangered”** by IUCN (International Union for Conservation of Nature) in 1966.
- These species are practically blind and rely on bio-sonar waves to move around.

## 7.11. HABITAT DESTRUCTION OF LAGGAR FALCON IN MADURAI

### Why in news?

- The Laggar falcon, once numerous in number, now has only two birds of this species surviving on the rock cliffs of Arittapatti in Madurai.
- They are probably the only birds spotted in the entire south Indian region in the last two years.
- There is no record of spotting Laggar Falcons on eBird, the US-based web page for birders.

### Reasons for the decline in number

- Indiscriminate sand quarrying on the Vaigai river bed and indiscriminate granite and stone quarrying in many parts of Madurai has led to loss of habitat of these birds.
- Felling of palm trees in these areas, which is a nesting spot of many raptor species, is also one of the reasons for the disappearance of the birds.

### About Laggar Falcons

Laggar Falcons are an indigenous raptor species with white and grey plumage, which can hunt and fly at speeds of up to 180 kmph. It resembles the lanner falcon but is darker overall.

## 7.12. GIANT PANDA NO LONGER ENDANGERED

### Why in News?

- The **International Union of Conservation of Nature** has said in a report that the Panda is now classified as **“vulnerable”** instead of **“endangered”** species.



## Highlights of the Report

- The IUCN (International Union for Conservation of Nature) report attributes the change in classification to the growing numbers of wild Panda.
- The Panda population jumped to 1,864 in 2014 from 1,596 in 2004, as a result of work by the Chinese agencies to enforce poaching bans and expand forest reserves.
- The report also warned that climate change is predicted to eliminate more than 35 percent of the Panda's natural bamboo habitat in the next 80 years.

## 7.13. INDIAN PAINTED FROG

### Why in News?

- A rare Indian painted frog was spotted for the first time in Bejjur forest in Telangana, Adilabad.
- The find had been made in an area that fell outside the mapped distribution area of the species.

### Indian Painted Frog

- The species is found in tree holes, burrows, pollution-free wetlands and riverine areas.
- This animal is listed among species of "least concern" by the IUCN.

### Bejjur Reserve Forest

- The Bejjur Reserve Forest lies on the banks of Pranahita river in the eastern part of Telangana district.
- The Peddavagu stream cuts across the Bejjur Reserve Forest.
- There are over 50 types of trees. There is presence of rare striped hyena, leopard almost all ungulates except the gaur.

## 7.14. NEW SPECIES OF PIKA

### Why in News?

- A new Pika species named "Ochotona sikamaria" has been discovered in the higher altitudes of Himalayas in Sikkim.
- The new species was discovered by the study based on genetic data and skull measurements.
- The study has been published in the journal, "Molecular Phylogenetics and Evolution".

### More on Sikkim Pika

- These members of the Pika family look like tailless rats.
- They are highly susceptible to climate change like increasing temperature.

## 7.15. PRAKAMPANA-2016

### Why in news?

- The three day long Joint Disaster Management Exercise named Prakashana ('Cyclone' in Sanskrit) was held in Visakhapatnam (Vizag) in September 2016.
- The exercise was aimed at synchronizing resources and efforts of all agencies involved in disaster management.
- It was conducted by the **Eastern Naval Command** in liaison with concerned Centre and State authorities.

### Significance

- **Prakashana** is a synergy between armed forces and civil administration during the Humanitarian Assistance and Disaster Relief (HADR) situations.
- The armed forces, in association with the National Disaster Management Authority and the NDRF participated in these exercises.
- The exercise holds importance in current scenario as India is prone to natural hazards and disasters.
- Similar exercises can be held for disasters in specific areas like landslides in Himalayan region, drought situation in central India and even road accidents at high danger zones.

# PHILOSOPHY/ दर्शनशास्त्र

by

**ANOOP KUMAR SINGH**

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## 8. CULTURE

### 8.1. JOGI TRIBAL ART

#### Why in News?

- The Rajasthan government has installed Jogi Tribal Art Paintings across Jaipur in an attempt to make people aware and to keep the traditional art alive.
- The paintings have been installed at one of its stations, on billboards, buses as well as on bus stands around the city.

#### What is Jogi Art?

- Jogi Art is tribal art form that hinges on lines and dots.
- It is mostly done in black and whites; however the recent installation in the city of Jaipur is of vibrant colours.
- It is practised by artists from Magriwada in Reodar tehsil of Sirohi district in Rajasthan.
- Interestingly, now this tribal art form is just practised by a nuclear family

### 8.2. BUNDI SCHOOL OF PAINTING

#### Why in News?

- Bundi Paintings are one of the many art forms that have used to decorate public places by the Rajasthan Government.
- This art form has been used to decorate the Kota Railway Station.

#### More About Bundi School of Painting

- Bundi School of Painting is a Rajasthani style of **Indian miniature painting** that lasted from 17<sup>th</sup> century towards the end of 19<sup>th</sup> century.
- It basically existed in the princely state of Bundi and the neighbouring principality of Kotah.
- The Bundi School is characterized by a fondness for lush green vegetation, dramatic night skies and a distinctive way of depicting water with light swirls.
- The Bundi School has a close association with the Mughal style.
- The Bundi Paintings emphasized on hunting, court scenes, procession, life of nobles, lovers, animals, birds and scenes from Lord Krishna's life.

### 8.3. NATHDWARA PAINTING

#### Why in News?

- The Rajasthan government has decked the Udaipur railway station in Nathdwara paintings in an attempt to keep the traditional art form alive.

#### More about Nathdwara Paintings

- Nathdwara Paintings refer to a school of artists that originated in Nathdwara in Rajasthan.
- The Nathdwara School of Painting is a subset of Mewar School and is seen as an important school in 17<sup>th</sup> and 18<sup>th</sup> century.
- These paintings have different sub-styles, of which the Pichwai Paintings are the most popular.
- Pichwai Paintings are cloth paintings hung behind the image of Hindu God, Shrinathji.
- Pichwai paintings illustrate different moods of Lord Krishna.

### 8.4. M S SUBBALAXMI

#### Why in News?

- The Suswaralakhsmi Academy of Classical Music and Performing Arts in Bengaluru celebrated the 100 birth anniversary tribute to M. S Subbalaxmi.

### More about M.S Subbalaxmi

- Madurai Shanmukhavadiyu Subbulakshmi born on 16<sup>th</sup> September, 1916 is known as a legendary Carnatic singer. She died on 11<sup>th</sup> December, 2004.
- She was the first musician ever to be awarded the Bharat Ratna as well as the first Indian musician to receive the Ramon Magsaysay Award.
- She received several awards during her career such as Padma Bhushan, Padma Vibhushan, Bharat Ratna and more.
- To honour her legacy, UN (United Nations) issued a stamp on her 100th birth centenary.

### What is Carnatic Music?

- Carnatic music, Karnāṭaka saṃgīta or Karnāṭaka saṅgītam is one of the two sub-genres of Indian classical music that evolved from Hindu traditions; the other being Hindustani music.
- This type of music is mainly associated with the southern states of the country.
- Carnatic music pays a huge emphasis on vocals. Most compositions are to be sung even when they are being played on instruments.
- Like Hindustani music, Carnatic music also relies on two main elements; Raga and Tala.
- Violin, mridangam, tambura, ghatam, kanjira, morsing, venu flute, veena and chitraveena are some of the musical instruments used in performances.

### UPSC In The Past (Mains 2009)

- What are the similarities and differences between the Hindustani and Carnatic styles of classical music?

## 8.5. INDIAN MUSEUMS IN BEST 25 IN ASIA

### Why in News?

- Five Indian museums have featured in the top 25 museums in Asia according to a survey conducted by Trip Advisor.
- Leh's "Hall of Fame" has topped the India list of must-visit places of the same survey.
- The other four museums that featured in the list are: Bagore ki Haveli (Udaipur), Victoria Memorial Hall (Kolkata), Salar Jung Museum (Hyderabad) and Jaisalmer War Museum (Jaisalmer).
- Other museums to feature in the top-10 India list are: Darshan Museum (Pune), Don Bosco Centre for Indigenous Cultures (Shillong) and Gandhi Smriti (Delhi).

### Leh's Hall of Fame

- The Hall of Fame located near the Leh Air Field is a museum built in the memory of soldiers who lost their lives during the Indo-Pak wars.
- It has been constructed and maintained by the Indian Army.
- The museum not only enlists information about the soldiers but also houses artefacts (weapons) from various wars.

### Bagore ki Haveli

- Bagore ki Haveli is an ancient structure (haveli) in Udaipur, Rajasthan that has been converted into a museum.
- It was built by Amir Chand Badwa, the Prime Minister of Mewar in 18<sup>th</sup> century.
- The museum portrays the culture of Mewar. It has glass and mirror interior work.
- There are also displays of costumes and modern art.
- The museum also has premium mural paintings of Rajasthan designed in Mewar.
- Unique symbols of the Rajput clan such as jewellery boxes, dice-games, hukkas, pan boxes, nut crackers, hand fans, rose sprinklers are also on display.

### Salar Jung Museum

- The Salar Jung Museum is located at Darushifa, on the southern bank of Musi river in Hyderabad. It is one of the three national museums of the country.

- The museum's collections are sourced from the property of the Salar Jung Family.
- It has a collection of sculptures, paintings, carvings, textiles, manuscripts, ceramics, metallic artefacts, carpets, clocks and furniture from Japan, China, Burma, Nepal, India, Persia, Egypt, Europe and North America.
- Some of the important Indian historical collections are: paintings of Raja Ravi Verma, Aurangzeb's sword and a wardrobe of Tipu Sultan.

#### Victoria Memorial Hall

- Victorial Memorial Hall is a large marble building built between 1906 and 1921 in the memory of Queen Victoria. It houses a museum today.
- The building was designed by William Emerson, President of the Royal Institute of British Architects.
- Although not the same, the architecture has an uncanny resemblance to the Taj Mahal.
- The museum has 25 galleries in all which includes the Royal Gallery, the National Leaders Gallery, the Portrait Gallery, Central Hall, the Sculpture Gallery and the newer Calcutta Gallery.
- The museum has the largest single collection of the works of Thomas Daniell and nephew William Daniell.
- It also houses a collection of rare and antiquarian books.

#### Jaisalmer War Museum

- The Jaisalmer War Museum is located 10 km from Jaisalmer on the Jaisalmer-Jodhpur Highway.
- This museum is built and maintained by The Indian Army.
- It has been built in order to commemorate the sacrifices of the war heroes of 1965 Indo-Pak war and the Battle of Laungewala.
- The museum also showcases the glorious history of the Indian Army.
- It also displays war exhibits which include vehicles and equipments captured during 1965 and 1971.

## 8.6. AUSTRALIA RETURNS STOLEN SCULPTURES TO INDIA

#### Why in News?

- Australia returned three ancient sculptures to India that were stolen and smuggled out of the country.

#### What is it?

- The sculptures that have been returned includes a **third century rock carving worth \$8,40,000, a 900-year-old stone statue of Goddess Pratyangira and a Seated Buddha.**
- The sculptures were returned after photographic evidence suggested the presence of these sculptures in India till a few decades ago
- The sculpture will now be placed at the **National Museum in India.**
- The National Gallery of Australia is investigating seven more objects.

## 8.7. TRINUMALAI NAYAK PALACE

#### Why in News?

- A light and sound show depicting the life of King Trinumalai Nayak and the construction of the Palace takes place in the Trinumalai Palace every day.
- It is one of the major attractions in Madurai.

#### Trinumalai Nayak Palace

- King Trinumalai Nayak built this palace in 17<sup>th</sup> century over 20 acres depicting the grandeur of South India.
- This Palace is a classical fusion of Dravidian and Rajput styles.
- Built in 1636, it was known for its 248 pillars.
- Only a quarter of the original structure stands today.
- After independence, the Palace was declared to be a national monument.



## 8.8. KANAKA MURTHY

### Why in News?

- Kanaka Murthy is a kannada sculptor who won the highest sculpture award in Karnataka.

### Who is Kanaka Murthy?

- Kanaka Murthy is the only woman sculptor in the country whose sculptures are worshipped in temples.
- Her work includes authentic reproduction of Chola, Hoysala and Chalukya styles.
- Her sculptures are installed in many prestigious places such as Wright brothers features at the Visvesvaraya Industrial Museum.
- She has directed many sculpture workshops all over India.

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## 9. ETHICS

### 9.1. ETHICAL RESPONSIBILITY OF PUBLIC OFFICIALS FOR THEIR PRIVATE ACTS

#### Why in news

- There are many instances where a debate is spurred regarding “whether public officials are ethically responsible for their private acts which are legally right but socially controversial?”

#### Immoral Conduct by Public Officials

- One of the controversial areas of government ethics is the **personal moral conduct** of public officials. The underlying concern here is whether the public servant or elected official is a person of **good moral character** and worthy to hold public office.
- Many countries prohibit some forms of immoral conduct, especially those directly linked to the performance of one’s public duties. For example,
  - ✓ treat co-workers and subordinates with respect,
  - ✓ prohibition on discrimination,
  - ✓ expected to be honest in relations with superiors and the public in general.
- Regulation of other forms of immoral conduct, in particular those that do not have a direct link to one’s official duties, is a much more controversial topic.
  - ✓ Some may argue that persons engaging in extra-marital affairs in their private lives or who have had past drug abuse problems have poor moral character, and cannot be trusted as public officials.
  - ✓ On the other hand, it could be argued that judgment of public officials should be limited to their professional qualifications and work, not their private lives. This view would hold that public officials have a right to a certain level of privacy in their personal lives.

#### Can a politician be ethical in public if he or she is unethical in private?

- This question deals with a longstanding ethical debate about what is called “**the unity of the virtues**”, advocated by many ancient Greek philosophers.
- **The unity of the virtues:** A person could not possess one of the cardinal virtues-prudence, temperance, courage, and justice-without possessing them all. That means a person would **either possess all the virtues or none of them**. For example, that a politician who cheats on his wife is not someone who can be trusted with the public’s business either.
- Also it is argued that one of the central tasks of the public sphere is educational-helping shape the thinking of the next generation. Hence, a **public servant must serve as an example of good conduct**.
- But political office is not what it was in the ancient world. For the ancient leaders, the required expertise was moral expertise. **But today, we expect our leaders to have entirely different sorts of expertise-economic, public policy etc.**

#### Where is the line between a politician's personal and public life?

- Everyone, including public figures, is entitled to **right to privacy**.
- But certain issues that might be considered private for a private individual can become matters of reasonable public interest when that individual is a public official.
- Becoming a public servant means **putting the public's interest ahead of your own**.
- If a private matter affects the performance of the officeholder’s duties, then it is no longer private. So behaviors that might impede performance, like financial problems, especially in a person with budgetary responsibilities, is matter of public interest.
- Because a politician represents the public, constituents will be better represented if he or she practices the **virtues of honesty and trustworthiness in both personal and private life**.

#### What ethical dilemmas are raised by a politician's personal behavior?

- Is the politician still engaging in this behavior?

- **Has the politician been hypocritical?** For example, the discovery of an affair might be more damning to a politician who has made "family values" a pillar of his or her campaign.
- Does his or her behavior create a **conflict of interest with the duties of office?**
- Is there any discernible **effect of the behavior on the larger moral climate?**

#### Other ethical issues involved

**Media's ethic of Privacy:** Obscene detail of the lives of public figures is a central content element in many media. Publication is not necessarily justified simply because the information is true. **Privacy is also a right, and one which conflicts with free speech.**

#### Ethical qualities of a leader relevant in this case

- Honesty
- Leadership by example
- Value awareness
- Trustworthiness

## 9.2. EYE DONATION AND TRANSPLANT

### Background

Transplantation represents one of the biggest achievements of medical science however; it is marred with a host of ethical challenges.

### Overview

- Transplantation and organ donation is considered to be a noble deed as it can help someone take another shot at life.
- Healthy living organs (especially in the case of deceased) does not go in waste and helps save a life.

Although both the parties do not stand anything to lose (unless in the case of living organ transplant), a host of ethical issues arise.

### Key ethical challenges

- The no. of organs available for donation is greatly falling short of the no. of transplants needed in the country. This raises questions of transparency and distributive justice.
- Although living organ donation is an option, main source of organs is from a deceased which needs family consent.
- The consent on the other hand is not only dependent on the procedure but also on cultural, religious and political factors.

### Ethical questions that needs to be addressed

- With supply falling short of demand, should organ transplant be done on a first come, first serve basis?
- Should a person who comes second and is more critical be left to die in order to practice distributive justice?
- Should a family member be allowed to give consent for a deceased when the deceased would not have wanted so?

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## 10. ALSO IN NEWS

### 10.1. UTTARAKHAND DISASTER: GVK FINED FOR AGGRAVATING THE IMPACT OF 2013 FLOODS

#### Why in News?

- The GVK Power Company also called Alaknanda Hydro Power Co. Ltd. (AHPCL) has been asked to pay Rs. 9.26 crore as fine for aggravating the impact of 2013 Uttarakhand floods.
- The judgement was carried out by **National Green Tribunal (NGT)**.
- Along with the compensation, NGT has also directed the company to pay an amount of Rs. 1 lakh each to the applicants.
- The judgement said the even though the disaster was a result of cloudburst but the company was aware that the project was situated in a geologically sensitive area.
- This is a landmark judgement because India has a long history of companies operating with impunity.

#### Background

- The GVK Power Company is executing the **Srinagar Hydroelectric Project** in Uttarakhand.
- It was alleged that the company was a largely responsible for the destruction in Garhwal, Srinagar in Uttarakhand.
- The company was dumping huge amounts of muck and silts on the hill slopes and river bed without taking adequate precautionary measures.
- The allegation has been proved to be correct by the tribunal.

### 10.2. WILDLIFE PANEL CLEARS FIRST PHASE OF THE KEN-BETWA PROJECT

#### Background

- The standing committee of the **National Board of Wildlife** gave a nod for **Ken-Betwa interlinking of rivers**, India's first interstate river interlinking project.
- The panel headed by Union Environment Minister Anil Madhav Dave has agreed to **submerge more than 100 square kilometres of Panna Tiger Reserve** in MP to link the Ken in MP and Betwa in UP.
- The 10,000 crore project is expected to help irrigate about 600,000 hectares of land and provide drinking water to 1.34 million people.

### 10.3. NEED FOR NATIONAL WASTE WATER REUSE POLICY

#### What Does It Say?

- A report by global consulting firm PwC titled, "Closing the water loop: Reuse of treated wastewater in urban India" makes a point that India needs a **national waste water reuse policy** to solve its "**perennial concerns**" of urban water stress.

#### Highlights of the PwC Study

- According to the report the country will add approximately 404 million urban dwellers between now and 2050 putting more pressure on the urban water stress.
- Institutionalising the reuse of treated water can go a long way in tackling this challenge effectively.
- The wastewater sector would be driven by government initiatives and implementation models would be designed accordingly.
- Both Central and State governments should participate through policy initiatives.
- Regulatory framework is the key to prevent industries from exploiting ground water resources.



- The current low cost of exploiting ground water makes reuse unviable and also irrecoverably depletes groundwater resources.
- The study suggests that the Ministry of Environment and the Ministry of Water Resources should work together to define quality norms for different grades of industrial water.
- This will help standardise the way waste water is reused nationwide.
- Also, government interventions are required for public-private partnerships to thrive in the sector.

#### Significance

- The report point out the stark reality of urban water stress in India.
- Recent cases of violence over Cauvery Dispute or Delhi's water crisis during Jatt protest only paints a sordid picture.
- The report makes some solid recommendations that can help India solve its water issues to a huge extent.

#### UPSC in the Past – 2015 (Mains)

India is well endowed with fresh water resources. Critically examine why it still suffers from water scarcity.

### 10.4. CENTRE ADDRESSES FEARS ON CITIZENSHIP BILL

#### Why in news?

- Due to pressure from parliamentarians who objected to grant citizenship to migrants from Pakistan, Afghanistan and Bangladesh on religious grounds, the government decided to add the nomenclature “**discriminated**” to the Citizenship (Amendment) Bill, 2016 that was introduced in the Lok Sabha in July 2016.

#### Changes and Impact

- The term “**religious minorities**” in the bill will now be replaced with “**discriminated religious minorities**”
- This would mean muslim sects like Shias and Ahmediyas who also face persecution in Sunni-dominated Pakistan would be eligible for citizenship.
- This change was effected after many parliamentarians criticised the plan of government to allow all religious communities into India, **except Muslims**.

**Note:** To know all the amendments proposed in the bill, please refer the August 2016 Vision Current Affairs.

### 10.5. CENTRE HIKES MINIMUM WAGES

#### Why in news?

Majority of trade unions carried out an all India strike on September 2, demanding higher wages and protesting against the government's unwillingness to grant a 12-point charter of demands they had put forward.

#### Issue

- Labour issues are part of the concurrent list of the Constitution, allowing both the Union and state governments to make rules on it. The Union government has the power to declare a national minimum wage floor.
- The government, after accepting the Minimum Wage Advisory Board's recommendations, announced a hike in the minimum wage for unskilled central government workers.
- The pay will be increased to Rs 350 a day from Rs 246.
- The wage hike move will benefit more than 10 million workers in sectors such as mines, construction and sanitation.
- However, the labour unions remained unconvinced and decided to go on a strike as scheduled, to protest against labour reforms, disinvestment in profit-making public sector undertakings and contractualization of workforce.

## 10.6. WORLD LOGISTICS PERFORMANCE INDEX

- World Bank's biennial measure of international supply chain efficiency, called Logistics Performance Index which measures a country's logistics performance at its key international gateways, has ranked India at 35th in 2016, jumping from 54th in 2014.
- While Germany tops the 2016 rankings, India is ahead of comparatively advanced economies like Portugal and New Zealand.
- Better performance in logistics not only boosts programs, such as Make in India, by enabling India to become part of the global supply chain, it can also help increase trade.
- The LPI measures performance in terms of six components i.e. Customs, Infrastructure, International Shipments, Logistics Quality and Competence, Tracking and Tracing, and Timeliness.
- The index is based on a worldwide survey of stakeholders on the ground providing feedback on the logistics friendliness of the countries in which they operate and those with which they trade.
- Logistics Performance Index does not address how easy or difficult it is to move goods to the hinterland or movements within the country.

## 10.7. FDI PROMOTION: PERMANENT RESIDENCY STATUS FOR FOREIGN INVESTORS

- India has decided to grant Permanent Residency Status (PRS) to foreign investors who meet some set criteria in respect of minimum investment and employment generation.
- This scheme will allow foreign investors who qualify for PRS status and their families multiple entry into the country for a maximum of 20 years without any stipulation governing their stay.
- The beneficiaries will also be exempted from registration requirement and given the right to purchase one residential property to live in.
- In order to avail this scheme, the foreign investor will have to invest a minimum of 10 crores within 18 months or 25 crores within 36 months, with the investment resulting in generation of employment to at least 20 resident Indians every financial year.
- The PRS will first be granted for 10 years, which can be reviewed for an additional 10 years if there is no adverse notice against the PRS holder.
- The scheme is similar to other such programs in countries like Singapore, Hong Kong which are favored FDI destinations across the globe.

## 10.8. NATIONAL APPRENTICESHIP PROMOTION SCHEME

- The Government has recently notified National Apprenticeship Promotion Scheme with an outlay of Rs 10,000 crore and a target of training 50 lakh apprentices by 2019-20.
- It is unique since, it is the first scheme to offer financial incentives to employers, as 25% of the prescribed stipend payable to an apprentice would be reimbursed to the employers directly by the Government of India.
- All transactions including registration by employers, apprentices, registration of contract and payment to employers will be made as online mode.
- Eligible employers shall engage apprentices in a band of 2.5% to 10% of the total strength of the establishment.
- The scheme also supports basic training, by sharing of basic training cost with basic training providers in respect of fresher apprentices who come directly to apprenticeship without any formal trade training.
- It provides for an industry led, practice oriented, effective and efficient mode of formal training.
- The National Policy of Skill Development and Entrepreneurship, 2015 launched by Prime Minister focuses on apprenticeship as one of the key components for creating skilled manpower in India.

## 10.9. INDIA LOST APPEAL IN WTO

### Background

- India had introduced a **'buy-local' provision under its National Solar Mission** for large solar projects. Under it the projects were entitled to subsidy and assured government procurement if the equipment was manufactured locally.
- The World Trade Organization (WTO) had earlier this year ruled against this provision in order to remove any disadvantage to imported solar equipment in India.
- As per WTO the local content requirements undermine our efforts to promote clean energy by requiring the use of more expensive and less efficient equipment, making it more difficult for clean energy sources to be cost-competitive
- However, this **proved to be a setback for India efforts towards clean energy** and fight climate change.
- As per India, 'Buy-local' provisions are essential to generate political and popular support for the economic transition as they create jobs, promote health and make the process cost-effective, encouraging trade unions and vote banks to extend their cooperation.
- India had, thus, filed an appeal before WTO on this issue. However, the appeal got dismissed recently.

*(For more on this issue please refer to February 2016 edition of Vision Current Affairs)*

## 10.10. MERCHANDISE EXPORTS FROM INDIA SCHEME

### Why in news

In the backdrop of the continued challenging global environment being faced by Indian exporters, Department of Commerce has extended support to certain new products and enhanced the rate of incentives for certain other specified products under the Merchandise Exports from India Scheme (MEIS).

### Major highlights of the support

- **Addition of new products:** 2901 additional products falling under different product categories have been added. These include:
- Many items of traditional medicines like Ashwagandha herbs and its extracts, other herbs, extracts of different items
- Certain marine products, sea feed items
- Onion dried, processed cereal products and other value added items of plastics, leather articles, suitcases etc.
- Industrial products under different categories, including engineering goods, fabrics, garments, chemicals, ceramics, glass products, leather goods, newspapers, periodicals, silk items, made ups, wool products, tubes, pipes etc.

## 10.11. NIRYAT BANDHU SCHEME

- The Niryat Bandhu Scheme was announced as **part of Foreign Trade Policy 2009-14** in 2011 to focus on mentoring the first generation entrepreneurs in the field of international trade.
- Under the scheme, officers of DGFT (Niryat Bandhu) will be investing time and knowledge to mentor the interested individuals who want to conduct the business in a legal way.
- The scheme was given a major thrust in the new Foreign Trade Policy 2015-20.
- A programme called **Niryat Bandhu@Your Desktop** was started last year to facilitate online mentoring.
- **Indian Institute of Foreign Trade (IIFT) has been identified as the nodal agency** for implementation of the programme.

## 10.12. INDIA'S FIRST COMMERCIAL ARBITRATION CENTRE

### Why in news

**Mumbai Centre for International Arbitration (MCIA)**, India's first major centre for commercial arbitration, will be launched in Mumbai on 8 October.

### Significance

- It will make India a **hub of international commercial arbitration**.
- Help in improving **ease of doing business**.
- Act as an **alternative forum** that Indian businesses can approach **instead of Arbitration Centre either at Singapore, London or Hong Kong**.
- There are arbitration centres in India but none of them have been approached for settling major international disputes
- This alternative dispute resolutions mechanism will also help in **de-stressing our overburdened judicial system**.
- Joint initiative between the **Government of Maharashtra and the domestic and international business and legal communities**.
- Arbitral rules will be based on **international arbitration best practices**.

## 10.13. PUSH FOR AQUACULTURE

**Why in news:** India International Seafood Show (IISS) in Vishakhapatnam was held on September 23-25. The theme was **"Safe and Sustainable Indian Aquaculture."**

### What is Aquaculture?

- According to the Food and Agriculture Organization (FAO), "aquaculture means the farming of aquatic organisms including fish, molluscs, crustaceans and aquatic plants".
- Particular kinds of aquaculture include fish farming, shrimp farming, oyster farming, mariculture, algaculture (such as seaweed farming), and the cultivation of ornamental fish.
- Particular methods include aquaponics and integrated multi-trophic aquaculture, both of which integrate fish farming and plant farming.

## 10.14. UNDERSEA CABLE TO LINK ANDAMAN WITH MAINLAND

- Union Cabinet has approved a proposal for **improving telecom connectivity in Andaman & Nicobar Islands by connecting the union territory with Chennai via an undersea optical fibre cable** at a cost of Rs.1,102.38 crore.
- The dedicated submarine OFC will connect Mainland (Chennai) and Port Blair and five other islands- Little Andaman, Car Nicobar, Havelock, Kamorta and Great Nicobar.
- Presently, the telecom connectivity is through satellites which is costly and has limited bandwidth.
- The connectivity would **help in the socio-economic development of the islands**.
  - It would allow the implementation of e-governance initiatives, establishment of enterprises and e-commerce facilities in the islands.
  - It would also support the educational institutes for knowledge-sharing and availability of job opportunities

## 10.15. 94.4% HOUSEHOLDS HAVE BANK ACCOUNTS

### Why in news

- **Fifth Annual Employment-Unemployment Survey** revealed that around 94.4 per cent households had saving bank accounts in 2015-16.
- Figure is much higher than the **official figure of Census 2011**, which puts the figure for households with saving bank accounts in India at **58.7 per cent**.

### Key facts

- 93.4 per cent households in rural areas and 96.8 houses in the urban areas had a savings bank account.
- Banking penetration was particularly low in north-eastern states
- According to the report, Pradhan Mantri Jan Dhan Yojana and Pradhan Mantri Mudra Yojana may have played a major role in this achievement.

## 10.16. GST COUNCIL SETS EXEMPTION FOR TAX THRESHOLD AND OTHER AGREEMENTS

- The Goods & Services Tax (GST) Council has decided that businesses in the North-eastern and hill states with annual turnover below Rs.10 lakh will be out of the GST net
- The threshold for the exemption in the rest of India would be an annual turnover of Rs.20 lakh.
- The Constitutional Amendment paving the way for the GST has a provision to accord special status to the North-eastern and hill states.
- **Effects:** Many small scale traders and service providers will be saved from undertaking GST compliances and it also reduces a substantial burden for tax authorities to assess small time dealers.

## 10.17. MARKET ECONOMY STATUS TO CHINA

- India is assessing the implications of China being granted "Market Economy Status" (MES) as in 2001, the WTO-member countries had decided to deem China as a 'market economy' in anti-dumping cases from December 2016.
- As per the 2001 agreement, to calculate the 'normal value' of exported goods while adjudicating anti-dumping cases, the WTO member nations could ignore the selling price and production costs in China for 15 years.
- Of the 535 cases where anti-dumping duties were imposed by India from 1994-2014, a maximum of 134 has been on goods from China.
- Market Economy Status will in turn mean lesser chances of anti-dumping duties being imposed or lesser anti-dumping duties even if they are imposed.

## 10.18. JOBLESSNESS RISES TO 5-YEAR HIGH

### Why in news?

According Fifth Annual Employment-Unemployment Survey conducted by Labour Bureau unemployment rate increased to a five-year high of 5 per cent in 2015-16.

### Key facts

- For female the unemployment rate rose sharply to 8.7 per cent in 2015-16 compared to 7.7 per cent in 2013-14.
- In rural areas it rose to 5.1 per cent in 2015-16 from 4.7 per cent in 2013-14.
- Whereas it declined in urban areas during the same period from 5.5 per cent 4.9 per cent.
- Among the states and union territories **Tripura (19.7 per cent)** tops the chart.
- The proportion of **self-employed and salaried workers**

## 10.19. NEW INITIATIVES APPROVED TO REVIVE THE CONSTRUCTION SECTOR

### Why in news?

The Cabinet Committee on Economic Affairs approved a series of initiatives to revive the Construction Sector.

### Importance of the construction sector

- It is the second largest contributor to economic activity accounting for about 8% of GDP.



- It accounts for the second highest inflow of FDI after the services sector.
- It generates the highest level of direct and indirect jobs employing about 40 million people and creating 2.7 new jobs indirectly for every Rs. 1.00 lakh invested.
- The sector has major forward (infrastructure, real estate, manufacturing) and backward (steel, cement, etc.) linkages, implying a high multiplier effect on economic growth, almost two times.

## 10.20. KRISHI PURUSKARS FOR SMALL FARMERS

### Why in News

The Union ministry of agriculture and farmers welfare has announced Krishi Purushkars at the National and Regional level every year on the occasion of Birth Anniversary of Pt. Deen Dayal Upadhyay.

### Objective

To recognize the contributions of marginal, small and landless farmers for developing sustainable integrated models of farming/ developing new innovations in any field of Agriculture/ developing value chain/ vertical farming module(s) or other such contributions of unique nature.

### About the awards

- The awards include one award at national level comprising Rs. One lakh and 11 zonal awards comprising of Rs. 50 thousand each along with a citation and certificate.
- This award has been instituted for recognizing the contributions of marginal, small and landless farmers for developing integrated and sustainable models of agricultural farming.
- All the award winners will be felicitated in award functions being organized in various zones in the presence of political leadership, various state functionaries, scientists and farmers of the region.

## 10.21. TASK FORCE TO BOOST INDIA'S INNOVATION SYSTEM

### Why in news?

- The Commerce and Ministry industry has setup a task force to assess India's position as an innovative country and suggest measures to enhance the ecosystem.
- It is an eight member task force comprising of people from both public and private sectors.

### Current Status

- India's ranking in the Global Innovation Index rose 15 places in 2016 to 66<sup>th</sup> position.
- India retained the top rank in Information and Communication Technology Service Export.
- India is the top-ranked economy in Central and Southern Asia.
- India ranks second on innovation quality amongst middle-class economies.

## 10.22. SIKKIM TOPS COVERAGE IN SWACHH BHARAT

- Close to two years after the launch of the Swachh Bharat Abhiyan in October 2014, Sikkim has emerged on top, while Bihar has been placed at the bottom among States in the rankings for coverage of Swachh Bharat (Rural).
- The rankings of the selected 75 selected districts were released by the Rural Development Ministry.
- Other top performing States are Himachal Pradesh (97.11 per cent coverage) and Kerala (96.35 per cent), while
- Odisha (32.79 per cent), Jammu & Kashmir (33.35 per cent) and Jharkhand (40.52 per cent) are the poor performers.

How clean are our villages?			
Ranking of States based on coverage data as per Integrated Management Information System, as on September 8, 2016:			
Top five		Bottom five	
Sikkim	99.90%	Bihar	25.16%
Himachal	97.11%	Odisha	32.79%
Kerala	96.35%	J&K	33.35%
Haryana	87.33%	Jharkhand	40.52%
Uttarakhand	86.42%	Telangana	42.13%

## 10.23. NATIONAL ACADEMIC DEPOSITORY

- HRD minister inaugurated the National Academic Depository (NAD) , a digital depository of academic awards
- It aims to replicate digitization and dematerialization of financial security depositories for the educational awards,
- The awards will be verified, authenticated, accessed and retrieved in a digital depository
- It is a move to enhance transparency and authenticity
- NAD will develop an online portfolio of all education certificates across Academic Institutes, which can be submitted easily for employment, higher education, and loans
- NAD will also integrate directly with Boards / Universities which issue Certificates and hence, will ensure authenticity of certificate records

## 10.24. NEW DELHI DECLARATION ON EDUCATION

### Why in news

BRICS nations adopted the 'New Delhi Declaration on Education at 4th meeting of BRICS Ministers of Education

SDG Goal 4: Ensure inclusive and quality education for all and promote lifelong learning

### Key points

- **The main aim is** to ensure inclusive and equitable quality education and promote life-long learning opportunities for all.
- Develop an enabling framework to promote research cooperation and knowledge transfer among BRICS countries.
- Facilitate mobility of students and scholars, and encourage exchange of teaching faculty.
- Share information on higher education systems, approval and recognition processes, quality assurance and accreditation, and prevalent procedures and practices for evaluation and recognition of qualifications to facilitate academic mobility.
- Identify a nodal institution within each country and create an institutional network to share ICT policies, Open Educational Resources and other e-resources, including e-Libraries, among BRICS member countries.
- Use information and communication technologies (ICTs) for improving access to education, enhancing the quality of teaching-learning process, teacher development, and strengthening educational planning and management
- Expand technical and vocational education and skills development programmes, for facilitating acquisition of skills and competencies by young people and adults for enhancing their employability and encourage innovation and entrepreneurship
- Initiate actions to formulate country-specific targets within the broader scope of the **SDG4** and corresponding targets.
- Share the best practices available in BRICS countries on collaboration in education, research and innovation through the BRICS Network University.

## 10.25. WAQF PROPERTIES

### Why in news

The Union Minority Affairs Ministry has been planning for the commercial and institutional utilisation of Wakf Board land across the country, including building malls, schools, hostels and offices.

### Recommendations of Justice GR Bhattacharya Commission

- Decentralize Waqf properties management and form district Waqf boards in view of the mess over listed and unlisted properties throughout the state.

- Prevent concentration of power and plug the routes to escape responsibilities by the Waqf Board members and Waqf Commissioner.
- Fix collective and individual responsibility and bar anybody from holding office for more than one term. A member or his close relatives should not be involved in transfer and transaction of Waqf property.
- Laws and rules regarding lease and tenancy should be changed.
- Complete survey and enrollment of Waqf properties in the quickest possible time.
- Empower trustees of Waqf properties to move court against unauthorized sale.
- No sale of Waqf properties to be registered without the board's permission.

## 10.26. PREVENTING SEX DETERMINATION

- Online search engines Google, Yahoo and Microsoft are under an "obligation" to check pre-natal sex determination advertisements;
- The Supreme Court directed them to develop in-house methods to prohibit such content.
- Google, Yahoo and Microsoft had agreed to follow the law on sex determination and would not allow any advertisement or "publish any content" violative of the Pre-conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) Act.
- companies had developed a technique called "auto block" which prohibited advertisements on sex determination

## 10.27. GANGA WATER HAS HEAVY METAL AND PESTICIDE TRACES: CPCB

### Why in news?

CPCB has presented a detailed report covering various aspects of contamination in the river Ganga, to NGT.

### Observations

- River Ganga is blocked/dammed at many places (upper Himalayan stretches and on the plains such as Haridwar, Bijnor, Narora and Kanpur) and water has been diverted for various uses. As a result, the water quality and ecological sanctity is threatened.
- A distance of 543 km between Haridwar and Kanpur, was affected by 1,072 seriously polluting industries which are releasing heavy metals and pesticides.
- Water quality of River Ganga is showing presence of bacterial contamination and faecal coliform.
  - a. 823.1 million litres per day (MLD) of untreated sewage and 212.42 MLD of industrial effluent flows into the river while three of the four monitored Sewage Treatment Plants (STP) were non-compliant with the set standards
- Most importantly there is presence of trace pollutants like heavy metals and pesticides in traces.
  - a. With regard to Zero Liquid Discharge (ZLD) by industries, CPCB said it has already directed them to achieve ZLD in distillery, tannery and textile units as it was mandatory that pollutants like chromium, total dissolved solid and other chemicals are separated before they are disposed of.

## 10.28. WESTERN GHATS PLANTATIONS HOME TO 204 BIRD SPECIES

### Why in news?

- The study, "Producing Diversity: Agro forests Sustain Avian Richness and Abundance in India's Western Ghats," is going to appear in the current edition of *Frontiers in Ecology and Evolution*.
- The study was conducted by scientists involved with the **Wildlife Conservation Society**- India.

### About Wildlife Conservation Society India Program

- WCS India Program, based in Bengaluru, has combined cutting-edge research on tigers and other wildlife, with national capacity building and, effective site-based conservation through constructive collaborations with governmental and non-governmental partners.
- WCS India Program is committed to saving wildlife and wild lands, nurturing and inspiring positive attitudes towards nature in people through its scientific and conservation endeavors.

### Key points from the study

- Coffee, rubber and areca forests in Western Ghats are home to over **200 bird species**, including 13 endemic ones.
- The study found coffee plantation was home to more birds than areca and rubber, but all three agro forests were important for bird conservation in the ecologically-rich Western Ghats region.
- The scientists involved in study, found a **clear positive association** between tree density and tree cover in the surrounding areas, as regards bird diversity.
- Tree cover is an important factor associated with higher bird species richness.
- Changing agricultural practices that reduce shade tree canopy or switching from coffee and areca to monoculture crops such as rubber can seriously damage the ability of these agro forests to support birds.
- Agro forests of the Western Ghats play a critical supplementary role in conserving India's birds.

### 10.29. SHANTI SWARUP BHATNAGAR AWARD

- The government announced the recipients of the prestigious Shanti Swarup Bhatnagar Award for Science and Technology, which is the most coveted award in multidisciplinary science in India since 1958.
- Partha Sarthi Mukherjee bagged the award in the Chemical Sciences category while Sunil Kumar Singh in the Earth, Atmosphere, Ocean and Planetary Sciences category.
- Avinash Kumar Agarwal from IIT Kanpur and Venkata Narayana Padmanabhan of Microsoft Research India have bagged the award in Engineering Sciences category.
- Amlendu Krishna from Mumbai-based Tata Institute of Fundamental Research (TIFR) and Naveen Garg from IIT Delhi have been selected in the Mathematical Sciences category.
- Subramanian Anantha Ramakrishna from IIT Kanpur and Sudhir Kumar Vempati from IISc have jointly bagged the award in the Physical Sciences category.
- The Technology Award for "Innovation" went to CSIR's National Aerospace Laboratories, Bengaluru for LED-based Drishti visibility measuring system.
- Drishti is a visibility measuring system installed at Indian airports to give information to pilots on the visibility at the runway for safe landing and take-off for airports.

### 10.30. WORLD'S FIRST BABY BORN FROM 3-PARENT TECHNIQUE

- The world's first baby using a controversial new technique developed by US scientists to include DNA from three parents in the embryo has been born.
- The baby boy was born five months ago in Mexico to Jordanian parents, and is healthy and doing well.
- Since, the boy's mother carried genes for a fatal nervous system disorder known as Leigh Syndrome in her mitochondria, doctors used her nuclear DNA and combined it with mitochondria from an egg donor, in a technique known as spindle nuclear transfer.
- The nucleus from one of the mother's eggs was removed and inserted into a donor egg that had its own nucleus removed.
- The resulting egg, having nuclear DNA from the mother and mitochondrial DNA from a donor was then fertilized with the father's sperm.
- In similar such attempts earlier some of the babies went on to develop genetic disorders, and the technique was banned.

### 10.31. ROSETTA: UPDATES

- Europe's Rosetta spacecraft, carried eleven scientific instruments and a lander named Philae to sniff and photograph the comet, 67P/Churyumov-Gerasimenko from all angles for 12 years.
- Rosetta's cameras show that comet 67P resembled a rubber bath duck with a distinct "body" and "head", and a crack through its "neck", a shape created by a low-velocity impact billions of years ago between two objects which fused.
- The comet's surface surprisingly was less "fluffy" and much harder than expected, and was super-dark and non-reflective by a thin layer of dust.

- The comet had much less water ice than thought, was littered with pebbles and rocks ranging in size from a few centimetres (inches) across to five metres (18 feet), and pocked with deep craters.
- The water on comet is of a very different “flavour” than that on our planet, with three times more deuterium, a heavy hydrogen isotope.
- 67P has no measurable magnetic field which implied that magnetism played no part in debris in the early Solar System clumping together to form planets, comets, asteroids and moons.

### 10.32. PARAM-ISHAN SUPERCOMPUTER LAUNCHED

- Union Human Resource Development Minister launched the supercomputer PARAM-ISHAN at IIT Guwahati.
- Param-Ishan has the power of 250 Teraflops and three hundred tera bites capacity.
- This supercomputer can be used in application areas like computational chemistry, computational fluid dynamics, computational electromagnetic, civil engineering structures, nano-block self assemble, optimization etc.
- It can also be used for weather, climate modelling and seismic data processing.

### 10.33. PRABAL DOSTYAK-16

- It refers to joint military exercise between the armies of India and Kazakhstan.
- ‘Prabal Dostyk’ meaning ‘Robust Friendship’ is a significant step towards fostering military as well as diplomatic ties between both countries.
- It was recently conducted in Karaganda region of Kazakhstan.
- The primary aim of this 14 days exercise is to increase interoperability understanding along with efficiency and effectiveness between the two armies while undertaking counter-terrorism and counter-insurgency operations under the umbrella of United Nations.

### 10.34. INDIA TO BECOME AN ASSOCIATE MEMBER OF CERN

- India is set to become an associate member of CERN, the world's biggest laboratory of particle physics in the next few months.
- CERN (European Organisation for Nuclear Research) operates the Large Hadron Collider (LHC), the world's largest and most powerful particle accelerator and is associated with the discovery of the Higgs Boson (popularly known as the God particle).
- India currently holds "observer" status that allows non-member states to attend council meetings and to receive council documents without taking part in the decision-making procedures of the organisation.
- As an Associate Member, India would be entitled to attend open and restricted sessions of the organization.

### 10.35. PRETERM BIRTH MYSTERY UNLOCKED

#### Why in news?

- Indian researchers have made a major discovery by understanding the mechanisms by which preterm births (between 28 and 32 weeks of gestation) occur.

#### Mechanism

- Group B Streptococcus (GBS) bacteria are normally found in human vagina and their numbers can shoot up in some pregnant women. The GBS bacteria have been associated with premature rupture of amniotic membrane and preterm birth.
- Gram-positive Group B Streptococcus (GBS) bacteria produce small balloons called membrane vesicles, which contain toxins that kill both foetal and maternal cells and destroy the collagen that binds the cells together.

#### Significance

- Normally, a pregnancy lasts about 40 weeks, but in case of preterm births has gestation between 28 and 32 weeks. India with 35% accounts for the highest burden of preterm births in the world.



- Preterm babies' bodies are not fully developed and they may have problems breathing and can also suffer from other complications including infections.
- This finding could help understand the cause and its prevention as well as cure. This could also help control infant mortality rate which are quite high in case of preterm births.

### 10.36. SLOWEST MAGNETAR SPOTTED

- NASA astronomers have found the slowest magnetar- magnetised neutron.
- The magnetar known as 1E 1613 is at the centre of RCW 103, the remains of a supernova explosion located about 9,000 light years from Earth.
- Neutron stars are created when giant stars die in supernovas and their cores collapse, with the protons and electrons essentially melting into each other to form neutrons.
- Magnetars have magnetic fields a thousand times stronger than the average neutron star. The resulting drag causes the star to take longer to rotate.

### 10.37. SARATHI

- It is the third ship in the series of six Offshore Patrol Vessels (OPV) built by the Goa Shipyard Ltd (GSL) for the Indian coast guard.
- Features
  - ✓ It can carry one twin-engine light helicopter and five high speed boats.
  - ✓ It can perform excellently during extreme monsoon and in rough sea.
  - ✓ It can achieve a speed of over 25 knots.
  - ✓ Its smaller turning circle diameter enhances manoeuvrability and ability to get into combat position quickly.
  - ✓ It has superior fuel-efficiency, endurance, crew-comfort, and ergonomics and head space.
- Significance
  - ✓ Enhanced operational capacity: It will boost coast guard's swift boarding operations, search and rescue, law enforcement and maritime patrol.
  - ✓ Environmental protection: The ship can carry pollution response equipment to contain oil spill at sea.

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## CSE 2013



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## CSE 2014



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**SUHARSHA BHAGAT**  
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## **AIR-1** **TINA DABI**



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