CURRENT AFFAIRS
NOVEMBER 2016

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1. POLITY AND CONSTITUTION

1.1. REGULATION OF MEDIA

Why in news?
- Inter-ministerial committee instituted by the Information and Broadcasting ministry ordered that the Hindi channel NDTV India be shut down for a day for revealing “strategically sensitive” details during its coverage of the Pathankot attacks in January.
- This action has come under severe criticism for impinging the Freedom of the Press.
- As of now, the ban has been put on hold. The SC is yet to hear the appeal against ban, scheduled on Dec 5.

Criticism of decision
- Editor’s Guild strongly condemned the unprecedented decision of the committee and demanded that the order be immediately rescinded.
- The government’s decision was a violation of freedom of media and therefore the citizens of India.
- Imposing ban without judicial intervention or oversight goes against the spirit of the Constitution and is violative of the principles of natural justice.

Evolution of curb on free speech
- When the Constitution of India came into force, freedom of expression was almost absolute.
- To curb violence after partition, Nehru-Liaquat pact was signed, in which even speeches were to be curbed. But the freedom of expression guaranteed under the Constitution of India was the biggest hurdle in the finalisation of the pact.
- Finally the first constitutional amendment came, but it was not on the basis of this pact but on the basis of a court verdict in the case of SOME magazines opposing Nehru’s policies.
- The second serious move to curb free speech was during the Emergency, when all the rights of media were suspended.
- The third move was when Rajiv Gandhi Govt. introduced a defamation Bill in 1988 aimed at limiting the right of freedom of expression. However, Government was forced to withdraw the controversial Bill.
- The fourth move was under UPA government, when a proposal was made to amend the Cable and Television Act to give powers to the area magistrate to stop the telecast of news channel. This move was opposed by journalists and Govt. was forced to withdraw it.

Suggestions
- There should be detailed guidelines laid down for the news channels, in relation, to broadcasting during a terrorist attack.
- The government should work with the media, the armed forces and all the stakeholders to create a system so as to prevent leakages.
- Media has to be more responsible when it comes to broadcasting such sensitive issues.

Way forward
- Live coverage of terror events and the compromise of ongoing operations is now a global point of debate to
create a balance between the right to allow dissemination of information in real time and aiding and abetting the enemy by providing helpful data on what’s going on to winkle them out.

- It’s time to establish an independent television media watchdog on the lines of the Press Council of India to ensure the freedom of the televised press. The UK has an independent media watchdog Office of Communications (Ofcom) that is recognised by statute and has enforcement powers.

### 1.2. ALL INDIA JUDICIAL SERVICES

Prime Minister recently revisited the possibility of recruiting judges through an All India Judicial Service (AIJS).

**Rationale for AIJS**

- It focuses on quality of judges rather than quantity.
- Appropriate way to recruit the best talent required for fulfilling the role that is demanded of a judge.
- Currently the subordinate judiciary depends entirely on state recruitment. But the brighter law students do not join the state judicial services because they are not attractive.
- With no career progression, no one with a respectable Bar practice wants to become an additional district judge, and deal with the hassles of transfers and postings. Hence the quality of the subordinate judiciary is by and large average.

**Previously recommended by**

- First Law Commission of India (LCI) in its 14th Report on Reforms on the Judicial Administration, recommended an AIJS in the interests of efficiency of the judiciary. In its 77th Report the LCI once again said the AIJS needed serious consideration.
- The idea of an AIJS was approved in the chief ministers’ conference in 1982.
- The Supreme Court has itself said that an AIJS should be set up, and has directed the Union of India to take appropriate steps in this regard.
- After the Swaran Singh Committee’s recommendations in 1976, Article 312 was modified to include the judicial services.

**Way forward**

- A career judicial service will make the judiciary more accountable, more professional, and arguably, also more equitable.
- It can have far-reaching impact on the quality of justice and on people’s access to justice as well.
- The PM and the CJI have raised red flags about the problems that plague the courts. There is no time better than now to start doing something about these problems.

### 1.3. EXCESSIVE GOVERNMENT LITIGATION

**Why in news?**

Prime Minister, during Delhi High Court’s golden jubilee in October, brought up the problem of excessive government litigation.

**Background**

- Government litigation reportedly constitutes nearly half of all litigation in the Indian judiciary.
- Besides being a constraint on the public exchequer, government litigation has contributed to judicial backlog, thus affecting justice delivery in India.
- Supreme Court, since the 1970 has criticized successive governments for being callous and mechanical in pursuing litigation.
- The Law Commission of India also studied this problem in its 126th Report in 1988, and made appropriate observations on this front.
- “National Litigation Policy” (NLP) 2010 failed as it was generic and without any scope for implementation.
Problems in NLP 2010

- It **fails to provide a yardstick** for determining responsibility and efficiency. The text does **not define** “suitable action” against officials violating this policy.
- It creates **“Empowered Committees”** to regulate the implementation of the policy. But there is **ambiguity about their role and powers.**
- It also **lacks any form of impact assessment** to evaluate actual impact on reducing government litigation.

Way forward

- Revision of the NLP needs to **ensure certain critical features** are not missed out:
  - It must have **clear objectives** that can be assessed;
  - The **role of different functionaries** must be enumerated;
  - The **minimum standards for pursuing litigation** must be listed out;
  - Fair **accountability mechanisms** must be established;
  - The **consequences for violation** of the policy must be provided;
  - A **periodic impact assessment programme** must be factored in.

A litigation policy can have a profound effect on how the government thinks about itself as a litigant, and can help curb the problem, provided it is constructed with a thorough understanding of the problem and offers solutions based on evidence rather than conjecture.

1.4. CONTEMPT OF COURT

Why in news?

The Supreme Court recently created history by issuing a **contempt notice against** one of its own former judges, Justice Markandey Katju.

Issue

- Former judge, Justice Katju wrote a blog **criticising the judgment** in the Soumya rape and death case and calling it "grave miscarriage of justice".
- Although there is a **right to free speech in India**, no person can say anything which “**scandalizes the court**”, i.e., which lowers a court’s dignity or shakes public confidence in the judiciary.

Situation in India

- When the **Constitution** was enacted in independent India, contempt of court was made an **exception to the right to free speech.**
- The **Contempt of Courts Act, 1971** defines 'contempt' as
  - Disobeying court orders,
  - Interfering with judicial proceedings,
  - Obstructing the administration of justice
  - Scandalising or lowering the authority of the court
and the last provision has created problem in many cases.

1.5. SC RULING ON WAAGE DISPARITY

Why in news

- Supreme Court has held that they **daily wagers, temporary, casual and contractual employees** should be paid at **par with regular employees** doing the same job as them.
- The petitioners were daily wagers working for Punjab Government.

Significance

- SC termed denial of equal pay for equal work as “**exploitative enslavement**”. Such an action besides being demeaning, **strikes at the very foundation of human dignity**. Court empathized with the condition of a helpless employee.
• SC cited that India has been a signatory for the past 37 years to Article 7 of the International Covenant on Economic, Social and Cultural Rights of 1966.
• According to different constitutional provisions and the law declared by the Court under Article 141 of the Constitution, the principle of 'equal pay for equal work' constitutes "a clear and unambiguous right and is vested in every employee, whether engaged on regular or temporary basis".
• The Constitution of India 1949: Art. 39 (d) say the state has to ensure that there is equal pay for equal work for both men and women.

International Covenant on Economic, Social and Cultural Rights (ICESCR)
• It is a multilateral treaty adopted by United Nations General Assembly in 1966
• It commits its parties to work toward the granting of economic, social, and cultural rights (ESCR) to the Non-Self-Governing and Trust Territories and individuals, including labour rights and the right to health, the right to education, and the right to an adequate standard of living.
The ICESCR is part of the International Bill of Human Rights, along with the Universal Declaration of Human Rights (UDHR) and the International Covenant on Civil and Political Rights (ICCPR).

1.6. SCHEME TO STRENGTHEN FOOD TESTING INFRASTRUCTURE

Why in news?
• The Food Safety and Standards Authority of India have rolled out a scheme for strengthening of food testing infrastructure in the country.
• This is following the observations of the Bombay High Court regarding the urgent need to upgrade Food Testing Laboratories in India.
• The estimated cost of the scheme is Rs 482 crore.

Key Features
• Food Testing Labs- Under this scheme, 45 State/UT Food Testing labs (at least one in each State/UT with a provision of two labs in larger states) and 14 Referral Food Testing labs will be upgraded to enable them to obtain National Accreditation Board for Testing and Calibration Laboratories (NABL) accreditation.
• Mobile Testing Labs- 62 Mobile Testing labs will also be established across all States/UTs. There are currently 4 Mobile food Testing labs in Punjab, Gujarat, Kerala and Tamil Nadu, which will serve as a model for these Mobile Testing labs.
• School Food and Hygiene Programme- Basic Food Testing labs will be set up in 1500 schools/colleges across the country to promote a culture of safe and wholesome food.
• Capacity building of the Food Testing labs is also an important component of this scheme.

1.7. RTI PERFORMANCE: STUDY

Why in news
A new study on the performance of the adjudicators of the Right to Information (RTI) Act has raised many important questions.

Findings
• Information commissions (ICs) imposed the penalty for denial of information (in violation of the RTI Act) in only 1.3 per cent of the cases where penalty was imposable. This promotes a culture of impunity.
• By foregoing of penalties (Rs. 25000 under RTI Act) has caused an estimated annual loss of Rs. 290 crore to the exchequer.
• Even more important than the revenue lost is the loss of deterrence value that the threat of penalty was supposed to have provided.
• Two provisions of the RTI Act invoked the most for denial of information were section 7 (9) (disproportionate diversion of resources) and section 11 (1) (third party information). “Neither of these can themselves be used to deny information,” noted the study.

Reasons for denying the information are
✓ information pertained to previous years,
✓ information sought was voluminous,
✓ PIOs claimed the information could not be traced,
✓ the IC determined that the applicant “had no good reason” for seeking information.

None of these are valid grounds for denial of information.
• Many of the state commissions had **not posted their annual reports** on the web and very few had updated the information.
• Despite the dictum of the Supreme Court, **more than 60 per cent** of the IC orders analysed contained deficiencies in terms of **not recording critical facts**.
• Rajasthan and Bihar’s State Information Commissions (SIC) were the worst performers, with 74 per cent and 73 per cent of the orders not describing the information sought.
• The **collective backlog** in the disposal of appeals and complaints in the 16 SICs studied, was an “**alarming 1,87,974 cases pending**” as on December 31, 2015.
• The Chief Information Commission (CIC) saw a rise in **pendency of 43 per cent**.

**Way forward**

• There needs to emerge, through a broad consensus, an **agreement on the number of cases a commissioner should be expected to deal with every month**.
• Well before a commissioner is due to demit office, the **process of appointment** of his replacement should be initiated so that the **new commissioner joins as soon as the previous one leaves**.
• The study has called for a **review of the structures and processes of the ICs**. With the help of a trained cadre of officers, the burden of work will be shared and the process of first communication from the IC can be restricted to 30 days.
• Suggestons by former information commissioner Shailesh Gandhi —
  ✓ At the time of the selection of the information commissioners itself, a deposition should be taken from them stating that they would strive to clear at least 5,000 cases per annum.
  ✓ In most of the cases, templates can be followed for quick disposal.
  ✓ Another prerequisite is the adequate staff which should be provided for.
  ✓ Also payment of compensation for denial of information to the applicants is a quick and sure shot way of reducing litigation.

(Please refer Mains 365 Polity Article 7.2 for details)
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2. INTERNATIONAL RELATIONS

2.1. INDIA AS A SOFT POWER

About

- India’s soft power is based upon its vast heritage going back thousands of years.
- India is placed 34th in terms of Soft Power as per the second annual list of nations with the greatest magnitude of ‘soft power released by London-based PR outfit Portland Communications.

What is Soft Power?

- The concept of soft power was developed by Joseph Nye of Harvard University and is the ability to attract and co-opt to shape preference of others instead of employing coercive measures or monetary influence.
- Hard power encompasses military and economic means while soft power is about culture and values.
- Soft power is a strategy used, in working to persuade by constructing and mobilizing networks, developing and communicating compelling narratives, establishing international norms, building coalitions, and drawing on the key resources that endear one country to another.
- Soft power is important economically, politically and diplomatically, establishing the prestige of a nation.

Why Soft Power has enjoyed rapid growth and popularity?

- Soft power strategies are an appropriate response to the changing nature of foreign policy, which is driven by power diffusion and the digital revolution.
- Using soft power resources can be much more cost-effective than hard power tactics.
- Collaboration has become the most effective approach to shaping major global outcomes. In contrast, unilateral action has become increasingly difficult, costly, and open to challenge. For example: The heavy economic cost borne by Russia following the annexation of Crimea.

India as a Soft Power

- Indian philosophy has captivated Western minds since the 1960s.
- The Indian cinema has long drawn huge audiences in significant parts of Asia, Africa, and beyond.
- The impressive participation around the world on International Yoga Day
- India has sophisticated systems of philosophy, psychology, medicine, science, social thought and spirituality, containing a wealth of wisdom and transformative ideas for this new era of information technology.
- India has an elaborate and integrated artistic culture of music, dance, painting, poetry, sculpture and architecture, covering human creativity in all its diverse forms.

However there are few areas to be worked on

➢ Cultural institutes: India needs to invest more in its equivalent cultural institute, the Indian Council for Cultural Relations (ICCR), or create a newer, more youth-oriented institute.
  - Germany has the Goethe Institute, China has its Confucius institutes, and France has the Alliance Francaise.
  - These are non-profit institutions with branches in all major cities throughout the world, as well as major universities, where they offer individuals the chance to learn foreign languages and attend cultural events such as movie showings and cooking classes.

➢ Museums: India’s National Museum does not feature on lists of top museums throughout the world.
  - There is a need for a world class museum in India.
  - The museum should be a repository for South Asia’s treasures, but also seek artifacts from all over the world.
  - The museum should cater to both an international and domestic audience.

➢ Sports: India should invest more in sports.
  - As a large, topographically diverse country, it should encourage both domestic and international visitors.
  - For example, like Iran, India can develop a major skiing culture, attracting would-be skiers from neighboring, warmer third-world countries in the Middle East and Southeast Asia.
Tourism: India should do more to draw tourists to beautiful but relatively unvisited sites such as the Sun Temple in Orissa, the ruins of Hampi in Karnataka, or the Spiti Valley in Himachal Pradesh.
- India should go beyond the image of just the Taj Mahal and Rajput forts.
- Increase tourism and draw tourists to all the states.

Cinema:
- India makes more movies a year than any other country. Yet, India has done little to convert this love of its movies into a desire for people to go to India or learn more about it (like the way Japan has used anime to promote itself throughout the world).
- India needs better, more consistent marketing.

The way forward
- Without soft power, hard power lacks its intellectual and cultural edge. While soft power provides the ideas and motivation, hard power gives the tools and weapons for the soft power to expand.
- Indian soft power has enormous influence in the world – from religious and spiritual aspects to popular culture and its IT-related expertise, crucial in today’s increasingly digitized world.

2.2. INDIA-UK

Why in news?
- UK’s PM Theresa May offered frequent registered traveller scheme for Indians travelling to Britain for business.
- The UK is also planning to restrict immigration through "work and study routes" which will have an impact on Indians being hired by British firms.

About the traveller Scheme
- Under the scheme, Indian nationals frequently visiting to the U.K. and contributing to growth in both countries will have a ‘significantly easier’ entry process including fewer forms to be filled, access to the EU-EEA passport controls, swifter passage through airports.
- It will give a boost to trade and investment in both the countries and strengthen ties between two nations.

About the Immigration Scheme

As per the proposal
- Immigration system will be re-looked if it provides the right incentives for businesses to invest in British workers.
- From December 2016, landlords renting out property to people with no right to be in the UK will be committing a criminal offence and could go to prison.
- Immigration checks will be a mandatory requirement for those wanting to get a licence to drive a taxi.
- From 2017, banks will have to do regular checks to ensure they are not providing essential banking services to illegal migrants.

Prospective impacts of the Immigration Scheme
- The tightened immigration will "ensure gaps in the UK’s labour market.
- The crackdown will affect students from India planning to study in the UK; their numbers are already at an all-time low.
- The move may make it difficult for British firms to hire from outside the EU, including countries like India.
2.3. INDIA-SRI LANKA: FISHERMEN ISSUE

Why in news?

India and Sri Lanka have agreed to set up a Joint Working Group on Fisheries (JWG) and a hotline between their Coast Guards to address the long-standing issue of fishermen from Tamil Nadu being arrested.

Background

- The bone of contention between the two sides is the Palk bay, the 137 kilometers long and its breadth varies between 64 to 137 kilometers.
- An International Maritime Boundary Line (IMBL) separates five Indian and three Sri Lankan districts.
- Fishing is the economic mainstay of northern Sri Lanka. The Sri Lankan fishermen have been demanding their Indian counterparts to stop bottom-trawling that have been damaging the marine ecosystem.
- Since 2014, Sri Lanka Navy has seized more than 100 fishing trawlers; while they have released the Indian fishermen, they refuse to release the trawlers.

The inconclusive talks among the fishermen representatives

- The Indian fishermen asked a three years phase out period. Under it, they should be allowed fishing for 83 days annually for next three years and then the fishermen will be withdrawn completely.
- The demand was rejected by the Sri Lankan fishermen who sought “compensation for the losses incurred” owing to the fishing by Tamil Nadu fishermen in “their waters”.

Pak Bay and associated issues

The Palk Bay has been providing rich fishing grounds for both the countries. However, multiple issues have compounded in recent decades to bring tensions in the region. These include:

2.3.1. ISSUE OF SOVEREIGNTY OF KACHCHATHEEVU

- The maritime boundary agreements of 1974 and 1976 delimited international boundaries in the Palk Bay and the Gulf of Mannar and Bay of Bengal, respectively. But on the ground the people concerned, namely fishermen, were not consulted.
- The island previously used to be under the Zamindari system of land tenure established by the British government. At the time of ceding, New Delhi did not consider Kachchatheevu to be part of India but rather a disputed territory.
- The government of India deemed the boundary agreement necessary to promote bilateral relations with Sri Lanka. There was strong opposition in Tamil Nadu which was brushed aside.
- The ongoing dispute has escalated tensions between those fishermen using traditional methods and those using mechanized methods, as well as increased the infringement of territorial boundaries.
- According to the government of Tamil Nadu, the sufferings of Indian Tamil fishermen is a direct consequence of ceding Kachchatheevu to Sri Lanka and sacrificing the traditional fishing rights enjoyed by Indian fishermen.
- According to the then foreign minister, Swaran Singh, though the island was ceded to Sri Lanka, the Indian fishermen continued to enjoy their traditional rights of fishing in and around Kachchatheevu.

2.4. CHINA

2.4.1. CHINA’S OBOR INITIATIVE

Why in news?

Latvia became the first country in the Baltic Sea area to sign a MoU to link up with China’s Belt and Road Initiative, during the visit by Premier Li Keqiang to the country

India’s concerns

- OBOR project will have a connected mix of developed European countries along with bustling

About OBOR

- The initiative comprises of the Silk Road Economic Belt and 21 Century Maritime Silk Road.
- The initiative was proposed by President Xi Jinping in 2013.
- It aims to boost connectivity and trade across Asia, Africa and Europe. Three main goals of China are:
  - Economic diversification
  - Political stability and the
  - Development of a multipolar global order
East Asian nations. India is concerned because many roads of the “belt” are inching towards India. For instance-

- Pakistan economic corridor—connecting Kashgar in Xinjiang with Karachi and Gwadar on the Arabian coast. It will run across the mighty Karakorams and through PoK.
- China is also extending its Tibet railway line from Lhasa to the Indian frontiers in the south.

- Besides economic integration, OBOR showcase Chinese military might to the larger world.
- China, through OBOR, can use sensitive corridors for its military mobilization.

Pros of India joining OBOR

- The technical know-how the project will bring back could be used to develop or iron out issues facing technical bottlenecks.
- The OBOR initiative could be icing on the cake for India’s flagship programs like Digital India. The “Information Silk Route” has the telecom connectivity between the countries through fiber, trunk line and under-sea cables.
- This will expand the bandwidth capabilities for India significantly, without which offering e-Governance and delivering public services in an efficient manner will remain a pipe dream and a good marketing campaign.
- India will have excellent connectivity of various transport modes, and a great facilitator to Make In India initiative if India joins such global infrastructure project.

2.4.2. RCEP CONCERNS WRT CHINA

Why in news?
RCEP raised concerns recently over giving greater market access to Chinese goods without gaining in return from Chinese economy.

What is the issue?

- If China is given more market access it may dump items where it has excess capacity like steel, as well as highly subsidized items which may harm local industry of importing countries and distort trade.
- Also, by agreeing to eliminate tariffs altogether, the move will mainly help China.

Earlier proposal by India

- Earlier, India proposed a three-tier tariff reduction plan, depending on whether it has a free trade agreement with the member country or not.
- Under the plan, it proposed 80% tariff cuts to the 10 Asean countries, 65% to South Korea and Japan and 42.5% tariff liberalization to China, Australia and New Zealand, with which it does not have free trade agreements.
- However, under pressure from other members it agreed to provide similar tariff cuts to all RCEP member states with limited deviation at the Laos ministerial.

Current Situation

- India is pitching for simultaneous negotiations for liberalisation of trade in goods and services in the proposed RCEP agreement.
- India plans to raise its earlier offer of tariff elimination on 42.5% traded goods with China but well below what it would offer to other member countries.
- It also plans to stagger the phase-out of tariffs over a longer period in the case of China, to allow Indian industry more time to adjust.

2.4.3. CHINESE SHIP OPENS NEW TRADE ROUTE VIA PAKISTANI PORT

China opened a new international trade route from the newly built Gwadar port connecting Central Asia, South Asia and the Middle East by seeing off an export ship to Middle East and Africa.

The Gwadar port
- Gwadar is warm-water, deep-sea port.
- **Strategic location**—it is located between South Asia, Central Asia and West Asia at the mouth of the Persian Gulf, just outside the Straits of Hormuz.
- It will also be the site of a floating liquefied natural gas facility as part of the larger $2.5 billion Iran–Pakistan gas pipeline project.
**Why is this important?**

The Gwadar port is the showpiece of the China-Pakistan Economic Corridor (CPEC) project, which Beijing sees as a crucial link that will help it in its drive to become a world power.

**CPEC and Pakistan**
- CPEC investment is expected to exceed all FDI in Pakistan since 1970.
- Over 7 lakh direct jobs likely to be created by CPEC in Pakistan.
- It will enhance the cooperation between China and Pak.
- Few Pak groups have expressed concern that Beijing could eventually use CPEC to boost its trade with India.

**The Baloch angle**

People in Balochistan, the Pakistani province in which Gwadar is located, are against the CPEC. They claim that the CPEC’s benefits will not flow to them.

**CPEC and India**
- India is unhappy with the CPEC as it passes through the Pakistan-Occupied Kashmir.
- Baloch activists have been reaching out to India in a hope to bring focus to their plight internationally.
- The China-Pak axis has already been creating waves and is concerning India.

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**About CPEC**

The China-Pakistan Economic Corridor (CPEC) is a 3,218-km route consisting of highways, railways and pipelines that will connect Gwadar port to Xinjiang in China. The CPEC is crucial for China’s ‘One Belt, One Road’ initiative that aims to connect China to Europe and Asia.

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**2.5. RUSSIA-CHINA-PAK TRIANGLE**

**Why in news?**
- Russia recently announced collaboration with Pak and China for a regional partnership project centred around Afghanistan.
- The timing of the announcement is significant as it comes amid rising war tensions between India and Pakistan, and just ahead of the 14-nation ‘Heart of Asia’ donor conference for Afghanistan to be held in India.
Russia-Pak

- Russia has been actively strengthening its military, economic and diplomatic ties with both China and Pakistan. Even though Pakistan is Russia’s Cold War rival, Moscow is understandably keen on forming an alliance with Islamabad and Beijing.
- Pakistan recently approved Russia’s request to use the strategic Gwadar Port for its exports, signalling a new alignment in bilateral relations after decades’ of sour ties during the Cold War era.

China-Pak

- China and Pakistan have been traditional allies for decades. China has always provided its military and diplomatic support to Pakistan against India.
- China recently announced to deploy its naval ships along with the Pakistan Navy to safeguard the strategic Gwadar port and trade routes under the China-Pakistan Economic Corridor (CPEC).
- The Gwadar port would enhance the military capabilities of both China and Pakistan, and make it possible for the Chinese Navy to easily access the Arabian Sea.

Prospectus of Russia-China-Pak superpower triangle

- Forming such triangle would not only allow them to impose efficient measures to counter the spread of terrorism and radicalism in the region but also stand up to America's growing influence in the region.
- Given that Russia, China and Pakistan are all nuclear powers, their alliance also makes them an intimidating nuclear force to be reckoned with.

(Refer to September 2016 issue for Russia-Pakistan Axis, and October 2016 issue for China-Pak Axis and India)

2.6. INDIA-JAPAN

Why in news?
Prime Minister Modi recently visited Japan at the invitation of Prime Minister of Japan Abe. The two Prime Ministers held wide-ranging consultations.

Background

- India and Japan, motivated primarily by shared concerns about China, have been developing a closer defence partnership defined by regular maritime exercises and high-level political consultations.
- Amid growing competition between the United States and China in Asia, the often-overlooked relationship between two secondary powers – India and Japan – has quietly developed into a close security partnership over the past 16 years.

Outcomes of the visit

- Synergising the partnership-
  ✓ Both countries undertook a comprehensive review of the Special Strategic and Global Partnership as outlined in the “India and Japan Vision 2025” and acknowledged the significant progress in bilateral relations over the past two years.
  ✓ Enhanced space and cooperation on global challenges- such as climate change, countering terrorism and violent extremism, reform of the United Nations (UN) including the United Nations Security Council (UNSC), as well as maintaining rules-based international order.
- Building stronger partnership for stable and safe world-
  ✓ Emphasis on rising importance of Indo-Pacific region- stressed the core values of democracy, peace, the rule of law, tolerance, and respect for the environment in realising pluralistic and inclusive growth of the region.
  ✓ Consolidation of security and defence cooperation- welcomed two Defence Framework Agreements concerning the Transfer of Defence Equipment and Technology and concerning Security Measures for the Protection of Classified Military Information.
  ✓ Deepening bilateral security and defence dialogues, through the “2+2” Dialogue, Defence Policy Dialogue, Military-to-Military Talks and Coast Guard-to-Coast Guard co-operation.
Partnership for prosperity-
- A dedicated task force to be set up comprising representatives of both countries to develop a concrete roadmap for phased transfer of technology and “Make in India.”
- Cooperation on the human resource development in the manufacturing sector in India through “Manufacturing Skill Transfer Promotion Programme.”
- The two Prime Ministers noted the growing collaboration between India and Japan in the modernisation and expansion of conventional railway system in India.
- To build upon cooperation in the field of smart cities to develop smart islands by initiating consultations to identify technologies, infrastructure, development strategies and management processes facilitating development of smart islands in an efficient and effective manner.

Cooperation for a cleaner and greener future-
- Recognised the importance of access to reliable, clean and affordable energy and welcomed the Japan-India Energy Partnership Initiative laid by the Japan-India 8th Energy Dialogue held in January 2016.
- Commitment to work together in developing the rules for successful implementation of the Paris Agreement on Climate change.
- Signed the Agreement for Cooperation in the Peaceful Uses of Nuclear Energy which reflects a new level of mutual confidence and strategic partnership in the cause of clean energy, economic development and a peaceful and secure world.

Foundation of a Future-oriented Partnership- Both the countries signed the following MoUs-
- MOU between JAXA and ISRO concerning Cooperation in the Field of Outer Space
- MoU between Ministry of Earth Sciences (MoES), Republic of India and The Japan Agency for Marine-Earth Science and Technology (JAMSTEC) on Mutual Collaboration in Marine and Earth Science and Technology.
  - Will advance of academic research in the field of Earth Sciences for the benefit of the peace and human welfare.
  - Will enhance capability in the field of atmospheric and climate research, ocean technology observation and hazard mitigation in case of tsunami, earthquakes and other phenomenon.
  - Will boost our “Blue Economy” with better research and exploration of marine resources.
  - Will give much needed exposure to Indian scientists by sharing of mutual experiences.
- MoU between National Investment and Infrastructure Fund Limited and Japan Overseas Infrastructure Investment Corporation for Transport and Urban Development
- MoU between Textiles Committee, Ministry of Textiles, GoI and Japan Textiles Products Quality and Technology Centre (QTEC) in the Field of Textiles

Investing in people for durable partnership by enhancing people to people contacts and in other areas of cooperation. Both countries signed following Memorandum of Cooperation(MoC)-
- MoU between the Ministry of Skill Development & Entrepreneurship of India, Government of India and Ministry of Economy, Trade and Industry of Japan, Government of Japan on the Manufacturing Skill Transfer Promotion Program
- MoC between the Ministry of Agriculture and Farmers Welfare, Government of India and Ministry of Agriculture, Forestry and Fisheries of Japan in the Field of Agriculture and Food Related Industry
- MoC in the Field of Cultural Exchange between the Ministry of Culture, Government of India and the Ministry of Education, Culture, Sports, Science and Technology, Government of Japan

### 2.6.1. INDO-JAPAN NUCLEAR DEAL

**Significance**

- The Agreement is a crucial determining factor as the US-based reactor vendors, as well as other global nuclear reactor manufacturers have alliances with Japanese companies and source the most critical equipment in a reactor — the calandria or reactor vessel — from Japanese heavy forging major Japan Steel Works (JSW). Now, after agreement India has direct agreement for Cooperation in Peaceful Uses of Nuclear Energy with Japan.
The pact is a major achievement for India as it is Japan’s first civilian nuclear cooperation pact with a country that has not signed the nuclear Non-Proliferation Treaty. The negotiations began in June 2010.

The agreement confirms India’s position in front of the world as a responsible nuclear nation which uses nuclear energy peacefully.

The pact is in line with Japan’s ambition to create a world without nuclear weapons.

The Indo-Japan nuclear pact is crucial for energy-starved India to access sensitive technologies to generate clean electricity.

It will boost India’s strategy to pursue a low-carbon growth model in decades to come. It was formally enunciated in the Intended Nationally Determined Contribution announced at COP-21 in Paris late last year and ratified by the government on October 2, 2016.

The deal took many years because India was reluctant to limit its option to carry out more atomic weapons’ tests in case the need arose. And Japan was uncomfortable with India having a nuclear weapons programme outside the nuclear non-proliferation regime.

2.7. INDIA-THAILAND-MYANMAR FRIENDSHIP MOTOR CAR RALLY

Why in news?

India flagged off a Friendship Motor Car Rally from India Gate lawns in Delhi to Bangkok.

Significance of the rally

- It will play an important role in developing the economic, transport and cultural relations between the three countries and will improve our relationship with our neighbouring countries.
- It will give a boost to the PM Modi’s ‘Act East Policy’.
- It will highlight the potential benefits of connectivity and integration in the region.

About IMT trilateral Highway

- The India–Myanmar–Thailand Trilateral Highway is an ambitious project of 1990 miles (3200 km) that will connect India with the ASEAN region.
- The highway will link Moreh in Manipur state (India), via Mandalay city (Myanmar) and to Mae Sot district (Thailand).
- It is a part of India’s upgraded “Act East” policy, which seeks to strategically build India’s link with the Southeast Asian region.
- Bangladesh has also been showing interest in joining the IMT highway through BIMSTEC.

2.8. INDIA-ISRAEL

Why in news?

- Israeli President, Reuven Rivlin, was in India on a six-day visit to India.
- Political sensitivity over India’s longstanding ties with Palestine had forced successive governments to keep the ties low-key.

Significance of the visit

- Rivlin is the first Israeli head of state to visit India in nearly 20 years. The last Israeli president to visit India was Ezer Weizman, in January 1997. The visit comes after President Pranab Mukherjee’s Israel trip in 2015.
- Rivlin’s visit marks 25 years of formal diplomatic ties with Israel set in motion by the PV Narasimha Rao government in 1992.

Importance of Israel for India

- Israel has emerged as a key partner for India in the spheres of security and defence.
- In agriculture, India has benefited from Israeli expertise and technologies in horticulture mechanization, protected cultivation, orchard and canopy management, nursery management, micro-irrigation and post-
harvest management particularly in Haryana and Maharashtra. Israeli drip irrigation technologies and products are now widely used in India.

- **Political relations** between both the countries are friendly and in recent years, ties have expanded to areas such as science and technology, education and homeland security.
- Bilateral merchandise strengthened between the two countries from 1992-2011. It has stagnated around $4.5 billion.
- Major **exports from India to Israel** include precious stones and metals, chemical products, textiles and textile articles, plants and vegetable products, and mineral products. Major **imports by India from Israel** include precious stones and metals, chemicals (mainly potash) and mineral products, base metals and machinery and transport equipment.

## 2.9. ROHINGYA ISSUE

**Why in news?**

Bangladesh, which shares a 168-km border with Myanmar, has refused to accept more Rohingya refugees. The issue of migration happened due to a military crackdown in the Rakhine State of Myanmar.

**Background**

- The latest surge in refugees was prompted by a long-building crisis: the discriminatory policies of the Myanmar government in Rakhine state, which have caused hundreds of thousands of Rohingya to flee since the late 1970s.
- The plight has been compounded by the responses of Myanmar’s neighbours, which have been reluctant to take in refugees for fear of a migrant influx they feel incapable of handling.

**Legal status of the Rohingya**

- The Myanmar government refuses to grant the Rohingya citizenship status, and as a result the vast majority of the group’s members have no legal documentation, effectively making them stateless.

**Reasons of their fleeing from Myanmar**

- The longstanding persecution of Rohingya.
- Rakhine state being Myanmar’s least developed state, with more than 78 percent of households living below the poverty threshold.
- Widespread poverty, weak infrastructure, and a lack of employment opportunities exacerbate the cleavage between Buddhists and Muslim Rohingya. This tension is deepened by religious differences that have at times erupted into conflict.
- Government policies, including restrictions on marriage, family planning, employment, education, religious choice, and freedom of movement have institutionalized systemic discrimination against the ethnic group.
- Indonesia, Malaysia, Myanmar, and Thailand—all ASEAN members—are yet

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**About Rohingyas**

- The Rohingya are an ethnic Muslim minority group living primarily in Myanmar’s western Rakhine state; they practice a Sufi-inflected variation of Sunni Islam.
- The Rohingya differ from Myanmar’s dominant Buddhist groups ethnically, linguistically, and religiously.
- The Rohingya are largely identified as illegal Bengali immigrants, despite the fact that many Rohingya have resided in Myanmar for centuries.
to ratify the UN Refugee Convention and its Protocol.

- **Regions of their migration**: Bangladesh, Malaysia, Thailand, Indonesia, India etc.

**Steps being taken to address Migration crisis**

- Aung San Suu Kyi, established a nine-person commission in August 2016, led by former UN Secretary-General Kofi Annan, to discuss options for resolving the ethnic strife in Rakhine state.
- Advocacy groups like Human Rights Watch, the Arakan Project, and Fortify Rights, a Southeast Asia-based advocacy group, continue to appeal to major international players to exert pressure on Myanmar’s government.
- The United States and other global powers have urged the central government in Myanmar to do more to protect ethnic minority groups from persecution.

**India’s perspective**

- At a time when refugee crisis is spreading over Europe, we may also suffer similar crisis involving the Rohingyas.
- India is not party to the 1951 Refugee Convention or its 1967 Protocol and does not have a national refugee protection framework
- The Government of India’s approach to refugee issues results in different standards of protection and assistance among refugee groups.

**Way Forward**

An international response that consists primarily of assigning blame for this humanitarian tragedy is no longer tenable. It is time for the international community to organize a realistic, workable solution.

### 2.10. BBIN INITIATIVE

**Why in news?**

- The Bangladesh, Bhutan, India and Nepal (BBIN) motor vehicle agreement was rejected by the National Council (NC), the upper house of the Bhutanese Parliament, during the ongoing winter session recently.
- The agreement had earlier been approved by the National Assembly, the lower house of Parliament, though it had received a great deal of criticism by the opposition.

**Reasons cited by Lawmakers of Bhutan**

- The BBIN MVA is not much of help to Bhutan in economic development as Bhutan’s trade is mostly with India and both nations already allow free movement of vehicles across their border.

**Significance of BBIN for India**

- The MVA agreement between sub-groupings of four SAARC nations Bangladesh, Bhutan, India and Nepal (BBIN) would have paved the way for a seamless movement of people and goods across their borders for the benefit and integration of the region and its economic development.
- The BBIN framework was seen as a conducive model of sub-regional co-operation in the area of Connectivity which involves transport as well as energy.
- India’s plan to single out Pakistan by implementing the pact has suffered a jolt by this rejection.

**India’s take on Bhutan’s decision**

- India has asked the Bhutanese government to reconsider the pact. However, the reconsideration can be done only after a year, as per the procedure there.
- New Delhi is now exploring various options to operationalize the agreement. For the time being, it has been decided that the pact will be implemented only amongst those countries which have ratified it — India, Bangladesh and Nepal.
2.11. 50 YEARS OF UNCITRAL

Why in news?

The United Nations Commission on International Trade Law (UNCITRAL) recently completed 50 years of establishment. It’s celebration was hosted by India.

About UNCITRAL

- It is the core legal body of the United Nations system in the field of international trade law.
- UNCITRAL was established in 1966 with a recognition that “international trade cooperation among States is an important factor in the promotion of friendly relations and, consequently, in the maintenance of peace and security”.
- Its business is the modernization and harmonization of rules on international business.
- There are 60 members in UNCITRAL elected for six years - 14 from Asia, 14 from Africa, 10 Latin American and Caribbean, 8 Eastern European and 14 western European and other states.

Role of UNCITRAL

Trade means faster growth, higher living standards, and new opportunities through commerce. In order to increase these opportunities worldwide, UNCITRAL is formulating modern, fair, and harmonized rules on commercial transactions. These include:

- Conventions, model laws and rules which are acceptable worldwide
- Legal and legislative guides and recommendations of great practical value
- Updated information on case law and enactments of uniform commercial law
- Technical assistance in law reform projects
- Regional and national seminars on uniform commercial law

UNCITRAL and India

- India is a founding member of UNCITRAL.
- India is only one of eight countries that has been a member of UNCITRAL from its inception, and has recently been re-elected for a term of six years
- UNCITRAL’s conventions and its model legal texts have formed the basis of new enactments in India and amendments to a wide array of our commercial legislation ranging from
  - the Arbitration and Conciliation Act 1996,
  - the Information Technology Act, 2000 and
- UNCITRAL’s seminal model law on international commercial arbitration 1985 has formed the bedrock of India’s Arbitration and Conciliation Act, 1996.

2.12. TRANS-PACIFIC PARTNERSHIP

Why in news?

The newly elected US president quit from the TTP the very first day of his office.

Prospective Impact of the decision

- TPP would have generated more growth for all inside the agreement.
- US would have reaped the biggest gains in dollar terms and that emerging markets, especially Vietnam, would have benefited most relative to their size.
- It contained stronger protection for labour rights, more environmental safeguards and, for the first time ever, measures to limit government support for state-owned companies. Hence, will affect all of these areas.
- The deal was most notable for its exclusion of China. The collapse of the TPP thus creates a void in Asia.
About TPP

- It is a trade agreement among twelve Pacific Rim countries signed on 4 February 2016. The 12 nations included Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, US and Vietnam.
- The aim is to ease the flow of goods, services and investments among them, and to strengthen the rules on labour standards, environmental issues, origin criteria and intellectual property.
- The mega trade deal was also perceived to be a counterweight to China’s growing global economic clout.

2.13. RUSSIA QUITS ICC

Why in news?

- Russia formally withdrew its signature from the founding statute of the International Criminal Court (ICC) in the backdrop of court publishing report recognising the annexation of Crimea as a military conflict between Russia and Ukraine and classified it as an occupation.
- Burundi, South Africa and Gambia have quit ICC have already quit ICC last month.

Issue

- **Reasons cited by Russian foreign ministry**: The tribunal failed to live up to hopes of the international community and denounced its work as “one-sided and inefficient.
- Russia insisted that Crimea voluntarily joined Russia after a referendum, but international observers has the opinion that the referendum was hastily organised, did not meet international standards, and was conducted as Russian troops swept through the peninsula.

*(ICC has been comprehensively covered in October issue-2016)*
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3. ECONOMY

3.1. DEMONETISATION OF RS 500 AND RS 1000 NOTES

Why in news?
The PM of India announced that the 500 and 1000 Rs notes will no longer be a legal tender.

Background
Initially there were certain clues on the breaking of black money momentum, this can be seen when:

- **Black Money and Imposition of Tax Act 2015**, came into force, where the disclosure of foreign black money within three months by paying 60% tax was passed.
- Also under the **Income Deceleration Scheme implemented earlier**, citizens were allowed to declare their undisclosed income and pay the tax, surcharge and penalty amounting to 45% of the declared income.
- Roll out of the **Pradhan Mantri Jan Dhan Yojana**, whereby access to bank was made feasible.

Need of demonetization
- To help eradicate circulation of fake currency, black money, terrorism and smuggling.
- Lax tax-compliance and low tax to GDP ratio – In assessment year 2012-13, 39 lakh people bought a three-wheeler or a four-wheeler but only 4 lakh paid income tax above 5 lakh.
- The primary reason for demonetisation was the massive rise in currency in circulation over the past one year. While the real gross domestic product rose by 7.56 per cent and inflation rose at 6 per cent, the currency in circulation rose by 15 per cent.
- Lack of transparency in financial dealings.
- High degree of correlation between crime and currency level in an economy.

Implications of Demonetization
- A parallel black economy would collapse.
  a. Of the Rs 17 lakh crore of total currency in circulation in the country, black money is estimated at mind-boggling Rs 3 lakh crore.
  b. **Counterfeit currency**: Death blow to the counterfeit Indian currency syndicate operating both inside and outside the country.
- On Employment: a large part of the Indian economy is still outside the banking system. So, the cash shortage will hurt the informal sector that does most of its transactions in cash.
- On elections: It will reduce the Vote-for-Note politics making elections more clean and transparent.
- On Economy:
  a. First, it will bring more borrowings to the exchequer, improve inflation outlook and increase India’s gross domestic product (GDP).
  b. Second, it will revive investment opportunities and give a fillip to infrastructure and the manufacturing sector.
  c. Third, it will help reduce interest rates and lower income tax rate.
- **Real estate cleansing**: An unexpected dip in land and property prices.
- On Higher Education: will become more reachable as the black money from ‘high capitation fees’ is discouraged.
- On security:
  a. **Terror financing**: Terror financing is sourced through counterfeit currency and hawala transactions.
  b. **Kashmir unrest**: The four-month-long unrest in Kashmir valley is on a backburner.

A brief past:
- Demonetisation was earlier done in 1978 When the government demonitised Rs. 1000, Rs. 5000 and Rs. 10000 notes.
- This was done under the High Denomination Bank Note (Demonitisation) Act, 1978.
- The difference between 1978 and 2016 Demonitisation is that the currency in circulation (of the higher denomination) is higher in 2016 than was in 1978.
c. **North-East insurgency and Maoists:** Black money is the oxygen for Maoists collected through donations, levy and extortions. The illicit money is used to purchase arms and ammunition.

**Challenges/ Criticism**

- Unorthodox methods being used and undeniable hardship borne by ordinary citizens are harshly criticised.
- Lack of Proper Planning and implementation of public policy; and lack of required capacity of the government.
- Population that does not have access to banking facility will face major inconvenience.
- Replacing all the Rs.500 and Rs.1000 denomination notes, as ordered by the government, could cost the RBI at least Rs. 12000 crore.
- The big players could go scot-free.
  - Substituting to *digital currencies or valuables such as gold or diamonds by corrupt. But these substitutes are heavier and bulkier, more traceable and less widely accepted which means the criminals face higher costs and a greater risk of getting caught.*

**Way forward**

- Follow the example of Kenya - **M-PESA,** in partnership with Vodafone's local operator Safaricom.
  - Cashless transactions have positively affected the household sector in Kenya which showed an increase of 5-30 per cent in income due to lessened travel time.
  - The system has also financed multiple start-up businesses with business transfers achieved through mobile payments from buyer to seller smoothly.
  - It has also integrated the traditionally un-banked population as over 80 per cent of the population use mobile phones as of 2016.
- Less-Cash and Cash-less economy:
  - Success of demonetization depends upon how majority of citizens accept tax compliance. Economy based on digital payments, moving all transactions through tax net, becoming tax compliant, then remonetisation will create faster economic growth with merger of white and black economies.
- Cyber-crime and remedial measure must be taken.
- There need to be more customer-bank awareness and interaction on topics dealing with e-transactions.
- All the political parties must come in consensus to get the maximum output of demonetisation.

### 3.2. PRADHAN MANTRI GARIB KALYAN YOJANA

**Why in news?**

Taxation Laws (Second Amendment) Bill, 2016 proposes to introduce a scheme named the 'Pradhan Mantri Garib Kalyan Yojana, 2016'.

**Features**

- Its aim is to use black-money collected post-demonetization in welfare schemes for the poor.
- The government wants to *give people an opportunity to pay taxes with penalties* and declare undisclosed income through the proposed Pradhan Mantri Garib Kalyan Yojana (PMGY).
- PMGY will allow people to deposit previously untaxed money by *paying 50% of the total amount: 30% as tax and 10% as penalty on the undisclosed income, as well as 33% of the taxed amount as cess.*
- The declarant will also have to deposit 25% of undisclosed income in a deposit scheme to be notified by the RBI under the Pradhan Mantri Garib Kalyan Deposit Scheme, 2016.
- **If the declarant refuses** the option of using the government deposit scheme, **85% of the amount will be deducted as taxes and penalties.**
- For money that is found in raids, taxes and penalties of nearly 90% of the amount will be levied, leaving just 10% with the owner.
3.3. “HOUSING FOR ALL” IN RURAL AREAS

Why in News?
- The Prime Minister has formally launched the “Housing for All” in rural areas scheme.
- Under the scheme the Government proposes to provide an environmentally safe and secure pucca house to every rural household by 2022.

About the “Housing for All “in Rural Areas
- It is named as the Pradhan Mantri Awaas Yojana (Gramin)- PMAY-G
- PMAY-G is a major step forward in bringing together Skill India, Digital India, Make In India, IT/DBT Aadhaar platform and Pradhan Mantri Jan Dhan Yojana (PMJDY).
- The implementation of housing developments in the rural areas of the nation will be done under the name of Gramin – Awaas Yojana.
- As per the Ministry of Housing, the project cost will be shared by both the central government and the state govt.
- Delhi and Chandigarh are the two cities which will not be covered under the scheme.

Objectives
- In its first phase the target is to complete one crore houses by March 2019.
- The programme targets the poor households and uses ICT and space technology to further confirm correct selection of beneficiaries and progress of work.

Provisions
- There is a provision of Bank loan upto Rs. 70,000/-, if the beneficiary so desires.
- Selection of beneficiaries - completely transparent process using the Socio Economic Census 2011 data and validating it through the Gram Sabha.
- The programme provides for skilling 5 lakh Rural Masons by 2019 and allows over 200 different housing designs across the country based on a detailed study of housing typologies, environmental hazards and the households’ requirements.
- Local materials will be used largely - along with a complete home with cooking space, electricity provision, LPG, toilet and bathing area, drinking water etc through convergence.
- The payment process- will be through IT/DBT mode with Aadhaar linked Bank accounts with consent, to ensure complete transparency and accountability.
- Skill training of Masons-There is a provision for orientation of beneficiaries. A 45 days on site hands-on skill training of Rural Masons helps poor households to move up the skilling ladder.

3.4. EASE OF DOING BUSINESS RANKING AMONG STATES

Background
- The Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry had given out a 340-point Business Reform Action Plan (BRAP) for States/UTs earlier this year.
- The BRAP included recommendations for reforms on 58 regulatory processes, policies, practices or procedures spread across 10 reform areas spanning the lifecycle of a typical business.
- The DIPP, in partnership with World Bank has studied the extent to which states have implemented the BRAP.
- This study was recently released in its Assessment of State Implementation of Business Reforms 2015-16.

Key Findings
- The rankings of states have changed considerably (See Table)
• Andhra Pradesh and Telangana have jointly topped the rankings.
• Major progress was made by states like Telangana, Haryana, and Uttarakhand.
• While 12 states were ranked as leaders with 90-100% implementation record, 17 states and union territories, including Kerala, Goa and most north-eastern states, were ranked as laggards that need “jump - start” with 0-40% implementation record.
• The national implementation average has improved from 32% to 48.93%.

Significance
• The reordering of the ranking signals that competitive federalism is rapidly taking root as states move swiftly to showcase themselves as ideal investment destinations.
• The rankings show greater acceptance of reform measures and seriousness about it among the states. For example, previously, only 7 states implemented more than 50% of the reforms proposed as against 17 this year. Further, last year, not a single state implemented more than 75% of reforms. But 16 states implemented more than 75% this year.
• The study highlights the weakness in the World Bank’s methodology of measurement of Ease of Doing Business Index which is concentrated only on two cities- Delhi and Mumbai. India’s marginal improvement of only one place is attributed to this limitation as reforms taken by Indian states have been ignored.
• It celebrates the achievements of the states and underscores the steps taken by them which could be emulated by others.

3.5. WORLD BANK’S “EASE OF LIVING” INDEX

Why in News?
• World Bank is all set to rank cities globally on a “ease of living” index.
• This news comes at a time when the World Bank is planning to tweak the “ease of doing business” index.

What is it?
• The index is being launched keeping in mind that as cities grow and expand, the ease of living becomes an important parameter.
• The index could include categories on social inclusion, cost of living, public transport, housing, education, health, environment-friendliness, crime/safety, governance and corruption.

Where India Stands Now?
• India was ranked a lowly 130 on the “ease of doing business” index 2016.
• India has recommended the World Bank that reforms undertaken in the entire country and not just in Delhi and Mumbai be considered for the “Ease of Doing Business” Index.
• The Ease of Doing business index measures how easy it is to setup new business in a particular country depending on different parameters such as getting a licence, infrastructure, govt. policy and so on.

3.6. ENTIRE COUNTRY UNDER NATIONAL FOOD SECURITY ACT

Why in News?
• The Centre notified that the entire country has now come under the umbrella of National Food Security Act with Kerala and Tamil Nadu joining the bandwagon.
• With this move, now 81.34 crore people will get wheat at Rs. 2/kg and rice at Rs. 3/kg.

Background
• The National Food Security Act was enacted in 2013 with the aim to provide adequate quantity of quality food at affordable prices to the people.
• The act provides food security by offering essential grains and cereals at rock bottom prices of Rs. 1, Rs. 2 and Rs. 3.
• The public distribution system forms the most essential part of the implementation of this act.
There are two types of beneficiaries under the PDS: AAY (Antyodya Anna Yojana, launched in 2000) and priority households.

Every AAY household is entitled to get 35 kg of food grains every month while priority households (BPL families) are entitled to get five kg per person of food grains every month.

3.7. PUSA ARHAR 16 TO BRIDGE THE DEMAND-SUPPLY GAP

Why in News?
- A high yielding pigeon pea variant, Pusa Arhar 16 has been developed by scientists at the Indian Agricultural Research Institute (IARI).
- The new variety is expected to be rolled out commercially for production in January 2017.
- This variety having lesser maturity period could be a game changer for inflation-wary policymakers and consumers alike.

Benefits
- The new variety has a maturity period of 120 days instead of 160-270 days needed by varieties in use now.
- It also needs less water and is suitable for mechanized harvesting.
- Despite the fact that the new variety is dwarf (95cm to 120cm) as compared to the prevalent varieties (which are 2 metres of plant height), it gives the same 20 quintals/hectares yield. The high yields result from high density planting.
- In traditional varieties the flowers do not set pods at the same time while in Pusa Arhar 16, there is synchronous maturity making it easier for harvesting.
- It is suitable both for intensive cultivation such as in Punjab as well as rain-fed areas of central India.
- The new variety can help India achieve self-sufficiency in pulses in the next 2-3 years.
- Adequate production can help bridge the demand-supply gap and be a sigh of relief for inflation wary policymakers.

Background
- India is the largest producer, consumer and importer of pulses.
- Arhar or pigeon pea is one of the most widely consumed pulses in India.
- The price of Arhar shot up to Rs. 200/kg in 2015 due to inadequate production. This also led to surge in imports.

3.8. FOUR-LEVEL GST RATE STRUCTURE

Why in News?
- GST Council has reached a consensus and has finalised four different GST tax slabs of 5, 12, 18 and 28 percent.
- GST laws are to be finalised in this winter session of the Parliament.

Major Takeaways
- Most of the common consumption items and food grains have been placed under zero tax rate thereby insulating the people from inflationary pressure.
- There are two standard rates of 12 and 18 percent which would include bulk of goods and services. This also includes fast-moving consumer goods (FMCGs).
- Services are most likely to get dearer as the one being taxed at 15 percent is expected to be put under the 18 percent slab.
- White goods shall be taxed at 28 percent. These include washing machines, refrigerators, and LED TV sets.
- Demerit and sin goods such as luxury cars, tobacco and aerated drinks will also be taxed at 28 percent. These goods will also attract cess for 5 years on top of 28 percent tax.
• The cess thus collected along with the clean energy cess would be used to compensate the states for the losses arising out of transitioning to GST.
• The cess would be charged such that the incidence of tax is not more than the existing 40-65 percent being charged now. (tobacco is taxed at 65 percent).
• Tax rate on gold hasn’t been decided as of yet.

Positives

• Consensus on GST tax rate between the centre and states is the first major step towards making its rollout possible by 1 April 2017.
• The four-slab tax bracket is far from one nation, one tax regime. However, keeping in mind the diversity of the nation, it is being considered as the first step towards a single rate structure.
• Tax rates have been decided such that the common man is least affected.
• Exempting common consumption items from taxation also ensures that the GST rollout would not affect work done to curb CPI inflation in the past 2-3 years.
• Tax compliance will increase since every transaction will be recorded at each stage by the GST infrastructure.

Criticisms

• The multiple-tier tax regime is likely to create a complex tax structure, something which India was trying to get away from through GST.
• Several registrations will be needed in each state making manufacturing and trade difficult.
• One of the major challenges in front of the govt. is the classification of different goods under different tax brackets.
• There is also no clarity whether a nominal GST would be levied on the five petroleum products (i.e crude oil, natural gas, petrol, diesel and ATF).
• Similarly, there is no clarity on GST rates for under construction properties or abatement on land.

Please refer to August 2016 Current Affairs booklet to know more about GST.

3.9. GLOBAL MICROSCOPE REPORT 2016

Why in News?

• India has been ranked third by the Global Microscope Report 2016.
• The report assesses regulatory environment for financial inclusion across 12 different indicators and 55 countries.

Background

• India has fared well in financial inclusion thanks to the steps taken in the past 10 years to modernize the financial sector.
• One of the major catalysts for financial inclusion recently has been the Pradhan Mantri Jan Dhan Yojana.
• The scheme helped open 100 million accounts for low incomes families in 2014 alone. This was assisted by the Aadhaar, national biometric identification programme. Total no. of accounts opened under the scheme reached 221 million by April 2016.
• With the launch of UPI (Unique Payment Interface), RBI hopes to strengthen the payment system and digitize it as well.
3.10. LOGISTIC EFFICIENCY ENHANCEMENT PROGRAMME

Why in News?

- The National Highway Authority of India has undertaken Detailed Project Reports (DPRs-survey) to critically examine the existing logistics infrastructure and destination of freight movement in the country under LEEP.
- This is done so as to reduce cost and time of freight movement across 44 different freight corridors (economic corridors), inter corridors and feeder routes.

What is it?

- LEEP stands for Logistics Efficiency Enhancement Programme which aims to enhance the freight transportation in India through improving cost, time, tracking and transferability of consignments through infrastructure, procedural and Information Technology (IT) interventions.
- The programme has been undertaken under Bharat Pariyojana
- In the first phase, DPRs of 15000 km is to be prepared.
- In order to reduce the time of surveys, it has decided to use latest technologies such as LiDAR, Satellite mapping and Ground Penetration Radar (GPRs).

3.11. PRADHAN MANTRI YUVA YOJANA

Why in News?

- Ministry of Skill Development and Entrepreneurship launched the Pradhan Mantri YUVA Yojana, its flagship scheme for entrepreneurship training and education at the Ministry’s second foundation day.

What is it?

- The scheme spans over five years (2016-17 to 2020-21) with a project cost of Rs. 499.94 crore.
- It will provide entrepreneurship education and training to over 7 lakh students in 5 years through 3050 Institutes.
- The scheme will also include easy access to information, mentor network, credit, incubator, accelerator and advocacy to create a pathway for the youth.
- The institutes under the PM’s YUVA Yojana include 2200 Institutes of Higher Learning (colleges, universities, and premier institutes), 300 schools, 500 ITIs and 50 Entrepreneurship Development Centres, through Massive Open Online Courses (MOOCs).

Other Initiatives of MSDE

- The ministry has plans to disburse around Rs.7000 crore to states to help align them with the Centre’s skill development agenda.
- The ministry has allocated around 3000 crore of 25% from the funds earmarked for the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) to the States, to achieve its target of training 10 million people over 4 years.

3.12. MERCHANT SHIPPING BILL

Why in news?

- The Cabinet approved a new Merchant Shipping Bill, 2016. It provides for repealing of the Merchant Shipping Act, 1958, as well as the Coasting Vessels Act, 1838.

Key Features of Bill

- Augmentation of Indian tonnage promotion
  - allowing substantially-owned vessels to be registered as Indian flag vessels;
  - recognising Indian controlled tonnage as a separate category;
- development of coastal shipping in India by:-
  - dispensing with the requirement for issuing of licences to Indian flag vessels for coastal operation and for port clearance by the Customs authorities; and
✓ making separate rules for coastal vessels to develop & promote coastal shipping.

• Introduction of welfare measures for seafarers, such as:
  ✓ seafarers held in captivity of pirates will receive wages till they are released and reach home back safely;
  ✓ Registration of certain residuary category of vessels not covered under any statute and to make provisions for security-related aspects.
  ✓ Incorporation of all International Maritime Organisation (IMO) Conventions/Protocols (see box)
  ✓ The Coasting Vessels Act, 1838, which is an archaic legislation of the British era providing for registration of non-mechanically propelled vessels to a limited jurisdiction of Saurashtra and Kutch, is proposed to be repealed since in the Merchant Shipping Bill 2016 provisions have been introduced for registration of all vessels for the whole of India.

Implications

• Provisions of the Bill will simplify the law governing merchant shipping in India and will help India’s Sagarmala project and development of Coastal Economic zones.
• Redundant provisions will be dispensed with and the remaining provisions will stand consolidated and simplified so as to promote ease of doing business.

3.13. INDEPENDENT DIRECTORS ON COMPANY BOARDS

Why in News?

• The role of Independent Directors has come into news in the light of developments in Tata group relating to removal of Cyrus Mistry.
• Before this, their role had hit the highlights in Satyam Scandal case for not being vigilant enough.

Who are Independent Directors?

• ‘Independent Director’ (ID) refers to a non-executive director (but not the Managing Director of a company, nor any whole time director) who, in the opinion of the Board, is a person of integrity and possesses relevant expertise and experience
• An ID must not have a conflict of interest and should not have any other pecuniary relationship with the company except only a pre-determined remuneration as a director on board.

Key responsibilities of IDs

• To meet at least once a year among themselves, without the presence of non-independent directors and management to review the performance of non-independent directors and the chairperson of the company.
• To ensure company is being run on the sound principles of corporate governance.
• To safeguard the interest of all stakeholders, particularly those of minority shareholders and balancing the conflicting interest of stakeholders.

Can IDs prevent mismanagement of a company?

• IDs suffer from having inadequate knowledge about the company and rely on what the management tells them.
• They have inadequate time to look at all aspects in details.
• As such, IDs are not capable enough to prevent large scale fraud or mismanagement in a company.

Independent Directors and Companies Bill

• The 2013 Act does not permit an Independent Director to have a pecuniary relationship with the company, other than his remuneration.
• However, the 2016 Amendment Bill permits an Independent Director to have a monetary relationship, up to 10% of his total income, with the company. This amount may be modified by the central government.
• Under the existing law, an independent director’s relative should not have been a senior employee of the company in the last three years. The proposed change in law seems to take away this restriction.
• However, concerns have been raised that these proposed changes in law strike at the root of independence of directors.

3.14. INDIA AS A GAS BASED ECONOMY

Why in news?
• In Parliament, the government replied that natural gas is one of the cleanest and most environment friendly fuels having extremely low Carbon Dioxide emissions compared to other fuels like coal and oil.

Steps being taken to increase use of natural gas
• Steps to ‘make India a gas based economy’
  ✓ Development of Gas Sources either through Domestic gas Exploration & Production activities or through building up facilities to import natural gas in the form of LNG,
  ✓ Development of Gas Pipeline Infrastructure and Secondary distribution network.
  ✓ Development of gas consuming markets like Fertilizer, Power, Transport and Industries etc.
• Steps to enhance domestic natural gas production through several policy initiatives such as:
  ✓ Policy to grant relaxation, extension, and clarifications at development and production stage for early monetization of hydrocarbon discoveries
  ✓ Marginal Field Policy- Discovered Small Field Policy
  ✓ Uniform Licensing Policy-Hydrocarbon Exploration and Licensing Policy
  ✓ Policy for Grant of Extension to small and medium sized discovered fields
  ✓ Policy for Marketing Freedom for Gas Produced from Deepwater and Ultra Deepwater areas etc.; and
  ✓ Policy on testing requirements for discoveries made under New Exploration and Licensing Policy (NELP) Blocks.
  ✓ To incentivize gas production from difficult areas, Government has granted marketing, including pricing, freedom for the gas produced from difficult areas as well as under Hydrocarbon Exploration and Licensing Policy (HELP) under which acreages will be provided in future.

Need for these steps
• Natural gas is one of the cleanest and most environment friendly fuels having extremely low Carbon Dioxide emissions compared to other fuels like coal and oil.
• The move towards a gas-based economy will not only showcase India’s commitment to climate change as a globally responsible economy, but will also draw huge investment to the sector, besides creating jobs.
• India’s gas supply deficit is expected to widen from 78 million cubic metres a day (mscmd) this fiscal year to 117 mscmd in 2021-22. This can have significant economic, strategic and geopolitical implications. The implementation of these policy initiatives and other reform initiatives is expected to enhance domestic natural gas production.
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4. SECURITY

4.1. TERROR FINANCING AND DEMONETISATION

Why in news?

- The Centre had declared that all currency notes of 500 or 1000 denominations ceased to be legal tenders from 8th November midnight.

How will it affect terror financing?

- The government targeted the fake currency notes in circulation which were an important source of terror financing, though an accurate number of such fake notes has only been a subject of speculation.
- As per a study done by the Indian Statistical Institute, Kolkata, in 2015 on behalf of the National Investigation Agency (NIA), Rs. 400 crore worth fake notes were in circulation in the economy which is merely 0.025 per cent of the total budget outlay of Rs. 19.7 lakh crore as announced this fiscal.
- As per the study Rs. 70 crore fake notes were pumped into the economy every year.
- The problem with the fake notes is that it is difficult to identify and count such notes in open market as they can be detected only when they enter the banking system.
- In 90% cases, the fake notes were printed in Pakistan and reached Bangladesh via any route, before being pumped into India through smugglers.
- With the raw currency, the ink and the silver thread, all being sourced from the same source by both India and Pakistan, some of the security features of the old notes had been compromised.
- The new notes will however be difficult to be faked as they have advanced safety features.
- Apart from this, the demonetization has given a body blow to the hawala racket which supplied loads of cash to terrorists based in J&K for their day to day operations.

4.2. CENTRE EXTENDS AFSPA TO ARUNACHAL PRADESH

Why in news?

- The Centre has decided to extend the Armed Forces Special Powers Act (AFSPA) in three districts of Arunachal Pradesh.

Why this step in the peaceful state of Arunachal Pradesh?

- The main reason as per the Centre is violence and intimidation resorted to by the National Socialist Council of Nagaland (Isak-Muivah), to dominate areas under the NSCN (Khaplang).
- This comes after the NDA government had signed a ‘framework agreement’ with NSCN-IM in September 2015 to find a final solution to the six-decade-old Naga issue.
- AFSPA was being extended in the districts of Tirap, Changlang and Longding, all bordering Assam, as these districts were being declared as “disturbed area” under Section 3 of the AFSPA.
- The NSCN-IM was desperate to regain control from the NSCN-K, which was banned last year after its alleged involvement in an ambush on an Army convoy in Manipur’s Chandel district.
- The NSCN-IM, is the largest group representing the Nagas demands a “Greater Nagalim” or a contiguous land for the Nagas, across the States of Nagaland, Arunachal Pradesh, Manipur.
- As per the Centre, the ceasefire signed with NSCN-IM, in 1997 is only for Nagaland; excluding Arunachal Pradesh and Manipur.

4.3. REVISED DTAA BETWEEN INDIA AND CYPRUS

Why in news?

- A revised Agreement between India and Cyprus for the Avoidance of Double Taxation and the Prevention of Fiscal evasion (DTAA) with respect to taxes on income, along with its Protocol, was signed today in Nicosia, which will replace the 2 decades old existing DTAA.
What are the improvements in the new agreement?

- The new DTAA provides for source based taxation of capital gains arising from alienation of shares, instead of residence based taxation provided under the existing DTAA, applicable for all investments made after 1st April 2017.
- It provides for assistance between the two countries for collection of taxes and updates the provisions related to exchange of information to accepted international standards.
- The Agreement expands the scope of ‘permanent establishment’ in line with the Indian tax laws and updates the text of other provisions in accordance with the international standards and consistent policy of India in respect of tax treaties.

4.4. INDIA TAKES STEPS TO BOOST CYBER SECURITY

Why in news?

- The Central government recently announced some measures, to strengthen cyber security in India.

What are the proposed measures?

- All organizations having a significant IT infrastructure will need to appoint cyber security officers.
- Efforts are being made to strengthen “Cert-IN”.
- State Certs in Maharashtra, Tamil Nadu, Telangana, Kerala and Jharkhand are being planned.
- Three new sectoral Certs in power sector -- generation, transmission and distribution, have been set up, in addition to the banking one.
- A National cyber coordination center is being set up to provide near real time situational awareness and rapid response to be completed in 5 years.

4.5. AVIATION SECURITY

Why in news?

- Government has taken steps to upgrade aviation security, where passengers’ travel and booking history will be tracked.
- The measures have been taken after a series of blasts occurred at airports in Turkey and Belgium recently.

Key features

- Under this passenger profiling system, potential troublemakers will come under the scanner of aviation security authorities the moment their tickets are booked unlike in US where they are screened 24 hours before flight.
- Air travel data will be tracked and a criminal check will be run to see whether a passenger’s name is in the terror blacklist.
- Profiling will not be based on religion, caste or creed. But on ticket booking history to check whether the pattern of travel is suspicious or not.

4.6. INDIGENOUSLY DEVELOPED SONAR SYSTEMS

Why in news?

- Recently, Navy inducted 4 types of sonars, indigenously developed by DRDO that will boost its underwater surveillance capability.

Key takeaways

- The systems included are
  - Abhay - compact hull mounted sonar for shallow water crafts,
  - Humsa UG - upgrade for the Humsa sonar system,
NACS - Near-field Acoustic Characterization System
AIDSS - Advanced Indigenous Distress sonar system for submarines.
- Abhay is designed and developed for the smaller platforms such as shallow water crafts and coastal surveillance/patrol vessels to help in detecting, localizing, classifying and tracking sub-surface and surface targets in both its active and passive modes of operation.
- AIDSS is “distress sonar” with an Emergency Sound Signaling Device used to indicate that a submarine is in distress and enable quick rescue and salvage.

4.7. TAPAS

Why in news?
- DRDO recently test flown UAV TAPAS 201(RUSTOM-II).
- As per the DRDO, it is a drone meant for meeting the surveillance needs of the forces and is not a UCAV meant for combat as reported by media.

Significance
- TAPAS 201, a multi-mission UAV is being developed by DRDO to carry out the Intelligence, Surveillance and Reconnaissance (ISR) roles for the three Armed Forces with an endurance of 24 hours.
- It is capable to carry different combinations of payloads like Medium Range Electro Optic (MREO), Long Range Electro Optic (LREO), Synthetic Aperture Radar (SAR), Electronic Intelligence (ELINT), Communication Intelligence (COMINT) and Situational Awareness Payloads (SAP) to perform missions during day and night.
- Immensely contributes towards the Make-in-India initiative as many critical systems such as airframe, landing gear, and flight control and avionics sub-systems are being developed in India with the collaboration of private industries.

4.8. INS CHENNAI

Why in news?
The 3rd Ship in the Kolkata class guided missile destroyers INS Chennai was handed over to the navy recently.

Features
- It has been built by Mazagaon Dock Shipbuilders Ltd (MDL) in Mumbai.
- It is among the largest destroyers constructed in India, displacing 7,500 tonnes and with a length of 164m, it can sail at a top speed of over 30 knots (around 55km) per hour.
- It is armed with supersonic surface-to-surface BrahMos, Long Rang Surface-to-Air Barak-8 missiles, heavyweight torpedo tube launchers, rocket.
- Undersea warfare capability includes indigenously developed anti-submarine weapons and sensors, hull-mounted sonar HUMSA-NG.
- For defence against enemy missiles, INS Chennai is fitted with 'Kavach' chaff decoy system and for protection from enemy torpedoes, has 'Mareech' torpedo decoy system, both developed in India.
- Apart from performing a range of maritime warfare roles, the ship also has 2 operational multi-role helicopters on board.
- Nearly 60% of the ship has been built at Mazagon Dock in Mumbai. The weapons and sensors were brought from Israel and Russia.

4.9. US-2I

Why in news?
- India is likely to purchase Japanese amphibious airplanes, the ShinMaywa US 2i.

Significance
- The aircraft will be helpful in humanitarian assistance and disaster relief especially in Andaman & Nicobar Islands and in Lakshadweep, where no regular landing strips exist currently.
• The primary reasons for this purchase seem to be the strengthening bilateral relations between New Delhi and Tokyo, and the Chinese announcement of having built the world’s largest flying boat, known as AG-600.
• There have been debates over whether these planes will serve any utility to India.
• Japan wants to make progress in defence exports which was banned in Japan since 1964, to be overturned only recently in 2014.
• Some experts believe that the deal could help in creating a future roadmap for more such deals with Japan, especially in naval warships and equipment.
• The Make in India initiative will get a boost as it will be manufactured by private sector, and final assembly and integration will take place in India, though doubts remain full technology will be transferred or not.
• The contentious issues are the high price which is around $3 billion over 7 years and the utility of the aircraft for India.

4.10. UPGRADED JAGUAR DARIN-III

Why in news?

• The upgraded Jaguar DARIN III twin-seat aircraft has received Initial Operation Clearance (IOC) recently.

Significance

• The indigenous aircraft is now equipped with world class avionics system in terms of data handling and overall capabilities.
• The total design covering system requirement capture, specification preparation, software, hardware, electrical and mechanical design and development were carried out indigenously by HAL.
• Three DARIN I Standard Jaguars have been upgraded to DARIN III Standard by HAL.
• The upgrade incorporates new state-of-the-art avionics architecture including the Open System Architecture Mission Computer (OSAMC), Fire Control Radar, Solid State Digital Video Recording System (SSDVR), Autopilot Identification of Friend or Foe (IFF) and more.

4.11. MODERN RFID ACCESS CONTROL SYSTEM

• Paradip Port has introduced the modern RFID Access Control System (RFID) for controlling and tracking the entry and exit of vehicular and human traffic, becoming the first major port to do so successfully.
• The move has helped in increasing the productivity of the port due to smooth movement of traffic across the gates.
• The new RFID system helps in, faster movement of cargo, lesser congestion, simplified online payment procedure, availability of real-time information on details of men and vehicles inside the restricted area.
• The new RFID system is beneficial to the port users in that they can avail data related to their cargo inflow and outflow over any desired period of time.
• Maritime Security of the port is also enhanced as it keeps a record of the details of the vehicles along with the credentials of drivers & helpers.
• Port users are facilitated with additional convenience of one more HEP (Harbour Entry Permit) Issue Section and more counters compared to the earlier system of two HEP Issue Sections.

4.12. MILITARY EXERCISES

4.12.1. INDIA CHINA

• An opening ceremony of the sixth India China Joint Training Exercise “Hand – in – Hand 2016” was held at the parade ground in Aundh Military Camp, Pune today.
• The aim of the joint exercise is to acquaint both the Armies with each other’s operating procedures in the backdrop of counter terrorism environment and enhancing confidence and trust between the two armies in case they are called upon into joint anti-terrorism operations under the UN mandate.
• A spectacular display of Indian martial arts of Kalyari pattu, Khukri dance and Malkhamb by soldiers of Indian Army and a massed martial arts display by the Chinese contingent will also be there.
• The joint training will also help in upholding the values of Peace, Prosperity and Stability in the region.

4.12.2. INDIA-BANGLADESH

• The Sixth India-Bangladesh Joint Military Exercise “SAMPRITI-2016” commenced at Bangabandhu Senanibas, Tangail recently.
• Main focus was on Counter-Terrorism Operations in mountainous and jungle terrain under the United Nations Mandate.
• SAMPRITI series of bilateral exercises is one of the major bilateral defence cooperation initiatives between India and Bangladesh.

4.12.3. INDIA-NEPAL

• Indo-Nepal Joint Military Exercise Surya Kiran-X commenced at Army Battle School, Saljhindi, Nepal. It was the tenth in the series of such exercise between the two nations.
• The Surya Kiran series of Exercises are being conducted annually, alternatively in Nepal and India.
• In the series of military training exercises undertaken by India with various countries, Surya Kiran series with Nepal is the largest in terms of troop’s participation.

4.12.4. INDIA-SRI LANKA

• The fourth edition of the Indo-Sri Lankan military exercise ‘MITRA SHAKTI 2016’ culminated recently at Sinha Regimental Centre, Ambepussa.
• The focus was on enhancing inter-operability while carrying out Counter Insurgency (CI) and Counter Terrorism (CT) operations under a UN mandate.

Significance of Military exercises

• The joint Military exercises provide an opportunity to the involved armies for greater cultural understanding, sharing mutual experiences and strengthening mutual trust and co-operation.
• These enhance defence co-operation and relations between the two nations.
• These are considered as the step towards taking traditional friendship between the nations to greater heights.
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5. ENVIRONMENT

5.1. NEW POLICY INITIATIVES IN URBAN TRANSPORT

About
- The central government working on new policy initiatives in public transport systems like metro rail, non-motorised transport and other low carbon emitting systems in urban areas.
- The new initiatives under consideration include Green Urban Transport Scheme (GUTS), new metro rail policy, revision of metro Acts and standardisation and indigenisation of metro systems, aimed at increased private sector participation.

GUTS
- Under GUTS, provision of non-motorised transport infrastructure, increasing access to public transport, use of clean technologies, adoption of intelligent transport systems (ITS) and private sector participation in urban transport projects will be increased.

Metro Policy
- The government is also working on a new Metro Policy which would mandate preparation of comprehensive mobility plans of cities to ensure last mile connectivity with metro stations besides bringing in more innovative models of implementation.
- The present Metro Acts in Delhi and Kolkata will be integrated envisaging more delegation of powers to State Governments besides promoting PPP and private initiatives.
- State governments would also be encouraged to form Unified Metropolitan Transport Authority to facilitate coordinated planning and implementation of projects relating to urban transport and integrated management.

Non-Motorised Transport
- The policy will also promote Non-motorised transport (NMT) infrastructure for encouraging walking and cycling.
- NMT as a viable alternative mode of mobility would be effective if there is a close relationship between work and living place and this would require proper land use zoning, development control and building regulations to ensure success of public transport system in cities.
- NMT is already being encouraged under the Smart Cities and AMRUT mission.

Significance
- The government wants the new urban transport planning to be people centric aiming at moving people instead of moving cars. It would ensure that all sections of people have access to efficient public transport through inclusive planning.
- One of the major drawbacks of the Smart City programme was that there was no focus on mobility. The new policy would help in meeting this gap.
- Another positive aspect would be that it will ask cities to submit plans on mobility and will rate them on service quality indicators.

UPSC in Past Mains 2014
Q. National urban transport policy emphasizes on moving people instead of moving vehicles. Discuss critically the success of various strategies of the government in this regard. (200 words)

5.2. MISSION ELECTRIFICATION

About
- It is an initiative of the Railway Ministry to reduce dependence on diesel by electrifying nearly 90% of railway tracks in the next five years.
• The Indian Railways will now set targets for ourselves to complete the electrification in a time-bound manner. It aims to speed up the present average rate of electrification of 1,700 route kilometers per year by doubling it next year.
• A mobile application called Rail Saver was also launched to enable railway officials to keep a track of energy consumption and trends.
• The government has tied up with PSUs for increasing the pace of route electrification and also with Ministry of Science of Technology for developing and utilizing renewable energy technologies.

Significance
• The largest component of greenhouse emission comes from transportation after power generation. Hence transportation will play a key role in reducing the ill effects of such emissions.
• Indian Railways consumes 2% of the country’s total power generation. The power could be effectively utilized in other sectors.
• This would also make the travel through Railways faster.
• This will help in reducing the energy bill of railways considerably. Railways’ expenditure on energy is second highest after salaries and pensions. It expects to reduce fuel bill by Rs 10,000 crore annually through electrification of major routes.

5.3. CORAL BLEACHING AT GREAT BARRIER REEF HIGHEST EVER

About
• A study report that 2,300-kilometre long Great Barrier Reef in Australia has suffered its most severe bleaching in recorded history.
• The Bleaching is due to warming sea temperatures during March and April of this year, with the maximum damage on its northern, pristine part.
• Scientists estimate that the northern region, region with most damage, will take at least 10-15 years to regain lost corals. However, the issue could be the possibility of a major bleaching event occurring before that, hampering the recovery.
• The southern two-thirds of the reef has escaped with minor damage.

Coral Bleaching
• It occurs when abnormal environmental conditions, such as warmer sea temperatures, cause corals to expel tiny photosynthetic algae, draining them of their colour.
• Algae are vital to the coral, which uses the organic products of photosynthesis to help it grow.
• The loss of algae makes the host vulnerable to disease and means it will eventually die.
• However, coral can recover if water temperature drops and the algae are able to recolonize them.

5.4. LOKTAK LAKE

Why in News
• The MoEF recently constituted a four-member team for conservation and management of the Loktak Lake.
• The team will review the implementation of various work carried out with financial assistance provided by the central and state governments so far for the conservation and management of the Lake. It will also suggest further interventions required for conserving the lake in a holistic manner.

About
• Loktak Lake is the largest freshwater lake in Northeast India located in Manipur.
• It is famous for the phumdis which is heterogeneous mass of vegetation, soil, and organic matter at various stages of decomposition floating over it.
• Keibul Lamjao is the only floating national park in the world. It is located near Moirang in Manipur.
• The Keibul Lamjao National Park is the last natural refuge of the endangered Sangai deer.
• Human activity has led to severe pressure on the lake ecosystem.
5.5. DELHI DECLARATION ON AGROBIODIVERSITY MANAGEMENT

About

- The first International Agrobiodiversity Congress (IAC) held in New Delhi has adopted New Delhi Declaration on Agrobiodiversity Management.
- In the declaration, 900 participants from 60 countries have urged researchers and policy-makers to strengthen and promote complementary conservation strategies to conserve and use agrobiodiversity.

Major Highlights

- The Congress addressed seven themes:
  - agrobiodiversity for food and nutrition;
  - agrobiodiversity for adaptation to climate change;
  - intellectual property rights (IPRs) and access and benefit-sharing (ABS) and farmers’ rights;
  - quarantine, biosafety and biosecurity issues;
  - conservation strategies and methodologies;
  - science-led innovation for agrobiodiversity management and sustainable use; and
  - capacity-building and strengthening partnerships.

5.6. MARRAKESH COP

Background

- in the latest CoP of the UNFCCC held at Marrakesh, Morocco more than 190 countries negotiated to prepare the fine print for Paris deal. It sought to make the rules that would help in the implementation of the law i.e. Paris Agreement.
- The countries have agreed to complete the rule book by 2018 as the Agreement would come into force from 2020.

Concerns

Differences between the developed and developing countries persisted over crucial issues pertaining to climate finance, adaptation funds and scaling up reduction in emissions of greenhouse gases.

- The developed countries, led by USA from the front, tried to use the rule-making process to subvert the Paris agreement.
- The developed countries were successful in getting their OECD report on climate finance acknowledged into the formal negotiations, despite developing countries claiming that it had used dubious accounting methods. This OECD report could now become one of the bases for defining climate finance.
- Principles of equity and differentiated responsibilities remain on table but no progress on operationalizing them in the Paris Agreement rulebook.
- The road map for rich countries to provide US $100 billion annually starting 2020 looks more dubious than before.
- No space for deeper emission reductions or increased climate finance by rich countries before 2020.
- The replenishment of funds for adapting to climate change though, was one of positive developments from the Marrakesh conference. There was a demand for replenishing the adaptation fund under the Paris agreement and that was done with $80 million. However, discussion over it will continue in the next CoP.
- The issue of providing loss and damage finance to vulnerable countries also will be taken up next year.
- India’s call for ‘Climate Justice’ finds no placeholder. India unable to find even a rhetorical entry for ‘lifestyle issues’ at Marrakech.

5.7. ‘CLEAR THE AIR FOR CHILDREN’: UNICEF STUDY

About

- The UNICEF recently concluded a study called ‘Clear the Air for Children’.
- In the study which is based on satellite imagery it has categorised the affected areas based on the quantum of particulate matter, ranging from 10 to 60 µg/m³.
Major findings

- Two-hundred and twenty million children in South Asia region including India, among nearly 300 million globally, currently live in areas where outdoor air pollution exceeds international guidelines by at least six times.
- Many of these children are already disadvantaged by poverty and deprivation. Some are already at heightened risk from conflicts, crises and the intensifying effects of climate change.
- Globally, air pollution affects children in low-income and middle-income countries more.

Impact

- The impact of such high level of pollution is commensurately shocking. Every year, nearly 600,000 children under the age of five die from diseases caused or exacerbated by the effects of indoor and outdoor air pollution.
- Millions more suffer from respiratory diseases that diminish their resilience and affect their physical and cognitive development.
- The effects of indoor air pollution kill more children globally than outdoor air pollution, especially in Africa and Asia where the use of solid fuels for cooking is prevalent.
- Chronic exposure to high pollution increases risk of miscarriage and early labor in pregnant women, and low birth weight.

Some suggestions by the Report

- It emphasised that nations need stronger measures to cut back on the sources of air pollution, which cannot be contained within borders and spreads across regions.
- Air pollution moves across borders, both national ones as well as sub-national ones, and so coherent government policies are needed to address these trans-boundary risks.
- At a global scale, better monitoring of air pollution is required.
- Public investment in healthcare for the children is required to make them more resilient against such new risks.

5.8. EMISSIONS GAP RISING

Why in News

- A recent UN Environment Programme Report reveals that global emissions have continued to rise despite some signs of emissions from fossil fuels and industries stabilizing.
- The emissions gap for 2030 is 12 to 14 GtCO2e (Giga tonne CO2 equivalent) compared with 2°C scenarios, and for 1.5°C the gap is three GtCO2e larger.

What is Emissions Gap?

- Emissions gap is the difference between the emissions levels in 2020 necessary to meet climate targets, and the levels expected that year if countries fulfill their promises to cut greenhouse gases.
- So, the emissions gap reveals how much more needs to be done by countries in order to meet the target of keeping global warming levels below the 2°C safe limit as agreed in the Paris climate accord last year.

Significance of the Finding

- The Report shows that the INDCs, even if fully implemented, would only help the world in staying below an increase in temperature of 3.2°C by 2100, and this would have disastrous consequences for the climate.
- The report has therefore emphasised on pre-2020 action by countries. According to it, raising ambition before 2020 is likely the last chance to keep the option of limiting global warming to 1.5°C.
- However, considering the political realities of the world especially the G-20 countries, the pre-2020 action would be an extremely difficult task to achieve.
5.9. FLY ASH UTILIZATION POLICY

Why in News
- The Maharashtra state cabinet has recently approved the State Thermal Power Plant Ash Utilisation Policy. With this it has become the first state to adopt this policy.
- The policy seeks to curb transport of fly ash produced in the coal-based thermal plants and stipulates measures to utilize all coal waste at source.

Significance
- It will help in cutting down air pollution as much of the fly ash pollutes the air while transportation.
- This would help in saving the ash transportation cost, a whopping Rs. 2000 crore at present, which is borne by the power stations.
- This could lead to cutting the cost of power to consumers.
- This would become the source of additional revenue for the government.

Need
- Ash content of Indian coal is approximately 30-45% while imported coals have 10-15%.
- A large quantity of ash is thus being generated at coal/lignite-based thermal power stations in the country, which not only requires large areas of precious land for its disposal near power plants but is also one of the sources of pollution of both air and water.

Key features of the Policy
- The government has announced cluster development of ash-based industries, such as cement, in the vicinity of all thermal power plants. The industries, in joint venture with the government, will be given land, ash and tax incentives.
- Fly ash can be used for making cement, pre-fabricated building material, bricks, laying roads, housing and industrial buildings, dams, flyovers, reclaiming low-lying areas, wasteland development, stowing of mines and all other construction works. These uses will be suitably promoted.
- The government has directed departments like Rural Development, PWD, Urban development, Tribal, Social Justice and premier schemes such as Housing for All, Pradhan Mantri and Mukhya Mantri Sadak Yojna to use at least 15% ash component in their works.
- The coal ash can be used in the agricultural land to increase its productivity and hence agriculture department has also been roped in to promote the fly ash among farmers.
- The government has also decided to export fly ash after treating it with cenospheres, which is expected to generate revenue of Rs 1,500 crore.
- The government has decided to set-up a company, Maha Gen Management Services (MahaGeMS), to manage the ash generated at all government-run and private thermal plants in the state.

5.10. COMMUNITY FORESTS IN CONTROLLING CARBON EMISSIONS

Need
- Tropical forests are one of the most significant carbon storage points above the ground. Indiscriminate afforestation, thus, exposes the world to large amount of carbon emissions.
- At least one-fourth of carbon stored in these tropical forests is found in the collectively-managed territories of indigenous people and local communities.
- To look at differently, about One tenth of the total carbon contained above ground in tropical forests is in collectively managed forests which lack formal and legal recognition.
- Without secure rights, these communities and their forests are at risk of illegal, forced, or otherwise unjust expropriation and capture by more powerful interests, thus displacing the residents, destroying the forests and releasing the carbon they contain into the atmosphere.

Advantages of community management
- Indigenous peoples and local communities are the best stewards of these forests.
- Further, securing the rights of indigenous peoples to own and manage their forests is an inexpensive way to limit emissions while improving communities’ economic stability.
- A recent study says that ecosystem services provided by tropical forests like soil retention, pollination, biodiversity, flood control, source of clean water along with tourism and other economic benefits to various
sectors amount trillions of dollars. In contrast, the cost of securing these land rights is less than 1% of the total benefits.

Challenges

- Many tropical forest nations have not embraced this cost-effective solution to preventing further emissions from forest loss.
- According to a report of Rights and Resources Initiative (RRI) released earlier this year, only 21 of 188 countries included forest people in their national plans for reducing carbon emissions under the Paris Agreement.
- Studies have shown that indigenous people and local communities customarily claim at least 50% of the world’s lands—including forests—but legally own just 10% of global lands, and have some degree of recognized management rights over an additional 8%.
- The lack of legal protection makes the forests more vulnerable to exploitation. For example, about 60 per cent of the forest cover of Arunachal Pradesh is classified as “unclassed state forest, or USF”, and is largely under the control of the local communities. The State of Forest Report (2011) has recorded a decline of 74 sq. km in the forest cover in the community-owned forest land in the State.

Way Forward

- Global communities, thus, need to recognize that keeping tropical forests intact will prevent carbon emissions.
- Community management of forest which is a reality must be promoted not only for its environmental benefits but also the various economic and social benefits it offers.

5.11. DISASTER RISK REDUCTION

- The Asian Ministerial Conference on Disaster Risk Reduction, 2016 was concluded recently at New Delhi.
- The Conference sought to pave the way towards implementation of the Sendai Framework in the Asian region.

Key Highlights

- **India-UN Agreement**
  ✓ India and United Nations Office for Disaster Risk Reduction signed a Statement of Cooperation.
  ✓ The Statement underlined the guiding principles, objectives and areas of cooperation between India and UNISDR towards the effective implementation and monitoring of the Sendai Framework on Disaster Risk Reduction (SFDRR).
  ✓ India will partner with UNISDR to work towards strengthening the capacity of Asian countries in ensuring risk resilient development.
  ✓ It will also facilitate the sharing of knowledge and experiences, and collaborative efforts towards addressing critical regional challenges.

- **Focus on Vulnerable Sections**
  ✓ India laid stress on working towards the protection of vulnerable sections especially women.
  ✓ Women are disproportionately affected by disasters. But they have unique strengths and insights which should be effectively channelized. The need to train a large number of women volunteers to support special needs of women affected by disasters was emphasized.

- **Use of Technology**
  ✓ There should be investment in risk mapping globally.
  ✓ New technology needs to be utilized in enhancing the efficiency of the disaster risk management efforts.
  ✓ Social media and mobile technologies must be properly applied in this.

- **Local Capacity**
  ✓ The local body form part of decision making and are the first to act on disaster management.
  ✓ Thus, there is a need to focus on building on local capacity and initiative and ensuring that the opportunity to learn from a disaster is not wasted.
• The regional plan would support national laws and national actions and advocated stronger disaster laws.
• There is a need to bring about greater cohesion in international response to disasters.
• The Conference came to an end with the adoption of the ‘New Delhi Declaration’ and the ‘Asian Regional Plan for Implementation of the Sendai Framework’.

**New Delhi Declaration**
- It was a political statement spelling out the commitment of participating governments towards preventing and reducing disaster risk, and strengthening the resilience of communities, nations and the Asian region.
- Recognising the need to accelerate the implementation of global frameworks, it committed to a people-centered and whole-of-society approach towards DRR.
- It also emphasises the need to enhance the capacity of communities and ensure participation of all stakeholder groups towards achieving resilience.

**Asian Regional Plan for Implementation of the Sendai Framework**
- It focused on the methodology to reduce disaster risk at national and local levels.
- It has arrived at a longer term road map of cooperation and collaboration, spanning the 15-year horizon of the Sendai Framework, as well as a two-year action plan to further disaster risk reduction with specific, actionable activities.

### 5.12. DELHI SMOG

**About**
- Delhi witnessed the worst smog in almost two decades, with consistently hazardous pollution levels being recorded for over a week.
- The air quality was 10 times worse than the safe levels.
- A number of factors were seen as responsible for the smog- stubble burning from Punjab and Haryana, vehicular pollution, Diwali crackers and rising levels of dust from construction and allied activities formed the major reasons.
- Adverse weather conditions, such as low wind speed coupled with drop in temperature and high humidity, which had blocked dispersal of pollutants, deteriorated the conditions further.

**Measures taken**
- Odd-Even policy,
- Ban on 10 years old diesel vehicles
- SC had ordered the Center and NCR states to divert commercial vehicles not destined for Delhi and levy environmental compensation charge on commercial vehicles to discourage them from passing through Delhi.
- But the **Issues with the above is**
  - These measures are not comprehensive.
  - Not all measures have been implemented well by the states.
  - Even the ECC that has been collected has not been fully utilized.

**Suggestions**
- Comprehensive road transport policy whereby promotion of public transport is needed. Several studies have shown that public transport provides more than 65 per cent of Delhi’s commuting needs but occupies less than five per cent of road space.
- This should be coupled with imposing disincentives to purchase private vehicles. In this a combination of pollution taxes, rationalizing licensing and registration of vehicles, congestion tax, car free areas etc should be implemented.
- Urban planning should be long-term which should give enough space for non-motorised transport like cycling and walking.
- The challenge is political will as automobile is one of the most important industry in India.
Stubble Burning

- Burning of agricultural waste add greenhouse gases that cause global warming, besides pollutants such as carbon monoxide, ammonia, nitrous oxide and sulphur dioxide and a high quality of PM2.5 that severely affect human health. It not only pollutes the air but also deprives the land of useful nutrients.
- Stubble burning in the northern States significantly contributes to the poor air quality in large parts of the Indo-Gangetic Basin, with local and cascading impacts felt from Punjab all the way to West Bengal.
- It is one of the most significant reasons for increasing pollution in the NCR region in winters that has become a regular menace.

Efforts taken

- Punjab has imposed a prohibition on the burning of paddy straw
- It further launched initiatives aimed at better utilisation of biomass, including as a fuel to produce power.
- NGT has banned crop burning in the NCR region.

Issues

- The root of the problem is financial- removing crop residues is expensive and thus is not preferred by the farmers. Further the use of mechanized harvesters which don’t cut the crop more close to the ground is aggravating the problem. The present efforts fail to address this issue.
- The efforts of utilizing biomass do not match the scale of agricultural residues
- Present efforts fail to address farmers’ anxiety to remove the surplus from the fields quickly to make way for the next crop.
- There is no mission mode approach to the annual crisis.

Suggestions

- Most of the biomass is burned during the winter when the demand for fodder is rising and thus the surplus material could be efficiently utilized.
- Power production from biomass, mechanized composting and bio-gas production should be scaled up by increasing investment.
- Policy support should be given to farmers to incentivize their liberal adoption.
- Conservation agriculture needs to be popularized which would encourage farmers to use newer low-till seeding technologies allowing much of the crop residues to remain on site, and curb the release of a variety of pollutants.
- Eminent agriculture scientist MS Swaminathan has suggested commercializing the paddy straw to address the problem. Paddy straw can be used for making animal feed, cardboard, paper and other products. Thus, if sufficient financial incentives are given to the farmers, they would not resort to burning them.
- There is also a need to develop rice varieties that are both rich in grain yield and high in straw quality. Use of such dual-purpose rice varieties will help to maintain food security, farm income and improve environmental sustainability.

Environmental Emergency

- The NGT had prescribed certain measures to be taken if pollution levels breach prescribed levels. For example, it said that if PM 10, PM 2.5 are in excess of 500, 300 respectively, a state of environment emergency should be declared.
- The measures could include a temporary shutdown of thermal power plants, temporary closure of all construction activity in affected areas etc.

UPSC IN PAST
Mains 2015
Q. Mumbai, Delhi and Kolkata are the three mega cities of the country but the air pollution is much more serious problem in Delhi as compared to the other two. Why is this so?
5.13. GREAT INDIAN BUSTARD (GIB)

Why in news?
- The Rajasthan government is formulating a long-term plan to save this bird from extinction in collaboration with the Wildlife Institute of India (WII).
- It will take into consideration important measures like controlling the population of stray dogs and implementing recovery actions programmes in collaboration with different stakeholders.

About GIB
- It is found in the exclusively in north-western plains particularly parts of Rajasthan and also Pakistan.
- It is one of the heaviest flying birds.
- It is critically endangered bird.
- The reasons are depleting habitat, i.e. grasslands especially due to development of infrastructure intrusions.
- It is the state bird of Rajasthan
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6. SCIENCE AND TECHNOLOGY

6.1. REGULATION OF E-PHARMA
The Indian Internet Pharmacy Association under the ambit of FICCI recently announced the launch of self-regulation code of conduct for the e-pharmacy sector.

The Self-regulation Code of Conduct

- E-pharmacy will process scheduled medicines only against a valid copy of prescription (physical or scanned) of a registered medical practitioner and ensure that no schedule X and other sensitive habit forming medicines are processed through their platform.
- They must make reasonable effort to ensure that all the pharmacy partners are duly registered under the Drugs and Cosmetics Act/ Rules.
- The player must make suitable arrangements to ensure that the medicines are packed, transported and delivered in such a way that their integrity, quality, and effectiveness are preserved.
- E-pharmacy players must partner with government for any recall of medicines and collect adverse events of medicines (consumer reports) and comply to submit them to National Centre for Pharmacovigilance.
- The online pharmacy sector must ensure a proper mechanism to address any queries or grievances that the customer may have and an ombudsman commission be appointed to address any public grievance.

Significance of self-regulation code

- It will help in adhering to the highest professional standards and to have proper safeguards so as to ensure that consumer’s health and safety is not compromised.
- By recognising and registering the legitimate e-pharmacies, government can easily address the challenges by maintaining sanctity of both IT Act and Drug and Cosmetic Act bringing effectiveness and efficiency in the entire system.
- Will help in overcoming the challenges of Accessibility, affordability and lack of awareness in e-Pharma sector for last mile access to medicines.

Benefits of e-Pharmacy

- The e-pharmacy model provides tracking and traceability of medicines.
- Addresses the problem of counterfeit medicines, consumption of drugs without prescription, tax loss.
- Provides value added services for consumer empowerment in healthcare, which are well aligned with the government’s Digital India initiative.

6.2. FIRST AUGMENTED REALITY (AR) INSTITUTE

About

- India’s first augmented reality (AR) education and training institute will be set in Varanasi.
- The institution will be established by the central government in partnership with Eon Reality, an augmented reality company based in the US.
- While the company will invest two-thirds of the initial expense, the central government will bring in the rest.

Significance

- Augmented reality is seen as the next big thing in the Internet revolution especially in learning and practical training space.
- It will allow students from various ranges like skill schools, engineering, research, etc. to experience a different kind of learning before entering the real-world workplace.

What is Augmented Reality?

- Augmented reality is a computer technology that functions on computer vision-based recognition algorithms to augment sound, video, graphics and other sensor based inputs on real world objects, using your device’s camera.
- It layers digital enhancements to enrich an existing real life setting by appealing to the senses.
- Augmented 3D information helps workers on assembly lines, or during maintenance work and repair to carry out required tasks.
Piezoelectricity is the electric charge that accumulates in certain solid materials (such as crystals, certain ceramics, and biological matter such as bone, DNA and proteins) in response to mechanical stress. It refers to electricity resulting from pressure.

6.3. NANOGENERATOR

About
- Pune based Indian Institute of Science Education and Research (IISER) and the National Chemical Laboratory have developed a nanogenerator that could produce up to 14 volts of electric power when thumb pressure is applied.
- To produce the nanogenerator, the researchers electrospun a piezoelectric polymer [P(VDF-TrFE)] directly onto a flexible, conducting carbon cloth.
- The carbon cloth was produced by heating a cotton cloth at 800 C for several hours in an inert atmosphere.

Significance
- Currently, there is considerable research emphasis to develop flexible or wearable devices like digital watches, health gear etc. Such devices should be portable, lightweight, shock-resistant, and inexpensive.
- An essential condition for these devices is that they should be powered by harvesting easily available mechanical or vibration energy, making battery or related wiring redundant.
- Thus, the development of such piezoelectric material is increasing. This invention can pave the way for further development in this field.

6.4. FAST NEUTRON REACTOR

Why in News?
- Russia has invited India to join it in developing the next generation nuclear reactors and to participate in its fast-reactor research project.
- The multipurpose fast reactor project, known by the Russian acronym MBIR, is coming up at the International Research Centre in Dimitrovgrad located in the Ulyanovsk region in Russia.

What Are Fast Reactors?
- A fast neutron reactor/fast reactor is a type of reactor in which nuclear fission chain reaction is sustained by fast neutrons.
- Such a reactor does not need any neutron moderator such as water which serves such a purpose in thermal reactors.
- Fast reactors are beneficial in the sense that it can help in the reprocessing and deactivation of radioactive waste material and produce energy as well.
- MBIR, the fast reactor project follows the closed fuel cycle.
- Transitioning to closed fuel cycle which is based on fast neutron reactors can solve five essential problems: safety, competitiveness, shortage of fuel, reprocessing and refabricating the used nuclear fuel and radioactive waste.
- It also addresses the non-proliferation of fission materials and weapon technologies.

More on MBIR
- The main purpose of the MBIR is to conduct large no. of reactor studies of Generation-4 nuclear systems.
- MBIR’s design includes three independent loops that can be used to test different coolants like gas, lead, molten salt and others.
Where Does India Stand?
- The country is currently developing breeder reactors which will be fuelled by the country’s vast thorium deposits.
- The Advanced Heavy Water Reactor (AHWR) is the latest Indian design for a next-generation nuclear reactor.
- Russia has also offered India a new breed of reactor units – the VVER-Toi (typical optimised, enhanced information design) for the third and fourth units of Kundakulam project in Tamil Nadu.

6.5. NASA’S NEW INSTRUMENT- BILI

Why in News?
- NASA has developed a new instrument that could search for signatures of life on Mars.

What is it?
- NASA will be using BILI- Bio Indicator Lidar Instrument, fluorescence based remote sensing instrument.
- It is similar to radar in principle and operation but instead of using radio waves, it uses light to detect and ultimately analyze the composition of particles in the atmosphere.
- This instrument is currently in use by the U.S military to remotely monitor the air to detect potentially life threatening chemicals, toxins and pathogens.
- Although NASA has used fluorescence-instruments to detect chemicals in Earth’s atmosphere, it has never been employed in planetary studies.

How does it work?
- Positioned on a rover’s mast, BILI would first detect dust plumes.
- Once detected, two ultraviolet lasers from the instrument would pulse light at the dust.
- The illumination would cause the particles inside these dust clouds to resonate or fluorescence
- By analyzing the fluorescence, scientist could determine whether the organic particles in the dust have been created recently or in the past.
- BILI can detect small levels of complex organic materials from a distance of several hundred metres.
- Therefore, it could detect bio-signatures in plumes above recurring slopes – even the areas that are not easily accessible by a rover.
- Also, it could do ground-level aerosol analysis from afar. This reduces the chances of contamination of sample.
- BILI’s measurements do not require consumables other than electric power and can be conducted over a broad area.

6.6. CSIR’S TECHNOLOGY FOR LEATHER PROCESSING

Why in News?
- Central Leather Research Institute has come out with a game changing technology to make leather processing environmentally stable and to reduce chromium pollution load.
- The technology is called “Waterless Chrome Tanning Technology” and is a first of its kind.
- The sector hopes to achieve its target of USD 27 Billion by 2020 employing this technology.

Background
- Chromium is the most sought after tanning agent with 2.0 billion sq. Ft of leather being made in India.
- About 20 thousand tons of chrome tanning agent is discharged in water.

Significance
- CSIR “Waterless Chrome Tanning Technology has been accepted PAN India.
- This technology completely eliminated two processes after and before tanning.
- It also eliminates the use of water in tanning.
- This process reduces the total dissolved solids in wastewater by 20%.
- It also brings down the usage of chromium by 15-20% resulting in material saving.
- Such technological interventions will help realise the vision of Make-in India.
- It will promote environment friendly leather processing.
- It will help promote global fashion forecasting for colours, design thus leading to increased trade and exports.

### 6.7. MCR-1 ISOLATED IN INDIA

#### Why in News?
- Scientists have isolated resistance causing mcr-1 gene in a strain of E.coli in India.

#### What is it?
- Mcr-1 gene is responsible for resistance against the antibiotic, Colistin- the last mile antibiotic that the human race has currently access to.
- Colistin belongs to a group of antibiotics called polymixins which are termed “critically important by WHO. It is used when no other antibiotic works.
- Colistin resistance has been previously detected only in mutations in the chromosomal/genetic path. And mutations do not spread from one patient to another.
- On the other hand, mcr-1, the gene is found in the plasmid medium, a small DNA molecule outside of the chromosomal DNA.
- In other words, the infection can spread in hospitals and the community now.
- Mcr-1 has already been detected in China, USA and Brazil.

#### Situation in India
- Detection of mcr-1 gene in India is alarming news.
- Colistin is used rampantly for non-therapeutic purposes such as growth promotion and disease prevention in poultry, farming and aquaculture in India which makes the situation all the more vulnerable.
- Although the government has advised to restrict usage of antibiotics, however no action has been taken of yet.
- Moreover, the discovery of new strain of antibiotic years away, the fight against AMR is a tough road ahead.

### 6.8. SOLAR CELLS FROM HUMAN HAIR

#### About
- Researchers at the Indian Institute of Science Education and Research (IISER) in Kolkata have used human hair to produce cost-effective, metal-free cathodes for use in solar cells.
- Metal-free cathodes or carbon cathodes have been produced in the past however they lag behind the metal ones in terms of efficiency and performance. This human hair based graphitic porous carbon cathode, on the other hand, is at par with the metal ones and more commercially viable.
- The porosity, along with high surface area to volume ratio, plays an important role in adsorption-desorption of electrolyte.

#### Significance
- This is a simpler, quicker and relatively cheaper process. Unlike in the case of other synthetic porous carbons, no physical or chemical activation process or templates is required.
- The cathode was found to generate high open-circuit voltage, which is at par with conventional platinum and activated carbon cathodes. Thereby, the power conversion efficiencies can also be enhanced.
- This is the first instance where a bio-waste-derived electrode has been used as cathode in a quantum dot sensitised solar cell device.
6.9. INDIA JOINS CERN

Why in news?
- India recently became an associate member of the European Organisation for Nuclear Research (CERN), the world's largest nuclear and particle physics laboratory.
- India can choose to apply for full membership after two years or continue with this status for five years.

Other facts about CERN membership
- India will also have to contribute 11.5 million Swiss francs every year to the capital or to the operating costs of CERN’s programmes, which the country did not have to as an observer member.
- Being associate member status Indian industries, now, can bid for tenders and procurements.

Significance for India
- Larger role in formulating scientific policy and experiments
- Access to various facilities and industrial participation, commensurate with the financial contribution
- Students pursuing their Masters and PhD can participate in various schools and workshops organised by CERN.
- Post-doctoral positions and staff positions at CERN will also open up.

About CERN
- CERN is based in Geneva on the French-Swiss border.
- It was founded in 1954.
- It has 22 member states and four associate member states and other associate members transitioning to full member status.
- It is best known as operator of the Large Hadron Collider, which found the elusive Higgs boson in 2012.
- India was inducted as an ‘Observer’ at CERN in 2004.

6.10. ELECTRIC PAPER

What is it?
- E-paper is a technology that mimics the appearance of ordinary ink on paper. The “paper” is similar to the Kindle tablet.

How does it work?
- The e-paper is less than a micrometre thin, bendable and gives all the colours that a regular LED display does.
- It isn’t lit up like a standard display, but rather reflects the external light which illuminates it. Therefore, it works very well where there is bright light, such as out in the sun, in contrast to standard LED displays that work best in darkness.
- At the same time, it needs only a tenth of the energy that a Kindle tablet uses, which itself uses much less energy than a tablet LED display.

6.11. MUSHROOM CULTIVATION

Why in news?
- The first Indian Mushroom Growers Association (IMGA) was launched recently in national mushroom industry interface meet made possible by the Indian Institute of Horticultural Research (IIHR), Bengaluru.

Reasons why it is well suited to India?
- Mushroom production is indoor activity using vertical space. Hence, does not compete with agricultural land and thus well suited to small farmers & landless labourers.
- Many of its agricultural wastes can be utilised to produce quality food and organic manure for field crops. Besides, mushroom has high bio-efficiency i.e. conversion of dry substrate into fresh mushroom.
- It can generate self-employment, alleviate poverty and improve socio-economic status of women, youth and unemployed in the rural areas.
- It can provide nutritional security particularly to poor people through incorporating mushrooms in their diets.
To promote mushroom cultivation in India

- It should be declared as agricultural activity and benefits of electricity tariff should be provided accordingly.
- Suitable machineries for mushroom production should be developed indigenously at reasonable cost in the country.
- Identify strains suitable for fresh and processed product.
- Establish strong link between mushroom industry and R&D establishments.
- Value added products of mushrooms should be popularised.
- Awareness should be created about nutritional and medicinal values of mushrooms with a view to boost mushroom consumption in the country.

6.12. EM DRIVE

What is it?
The EmDrive (Electro Magnetic Drive) is a microwave thruster developed by British engineer Roger Shawyer that aims to replace the rocket engines of today.

How does it work?
- **Conventional rocket engines** require propellant fuel like liquid oxygen and kerosene to be burnt in the engine in order to make them move forward.
- **EmDrive** requires no propellant at all. Instead of using heavy, inefficient rocket fuel, it **bounces microwaves back and forth** inside a cone-shaped metal cavity to generate thrust.

Controversy
- Some academics argue that the EmDrive cannot possibly work because according to the law of conservation of momentum (every action has an equal and opposite reaction).
- In order for a thruster to gain speed in one direction, a propellant must be expelled in the opposite one, and since the EmDrive is a closed system with no propellant, it is seen to violate understanding of physics.

Significance: A demonstrable, working EmDrive could open up exciting possibilities for both space and terrestrial travel such as:
- The space propulsion device could speed up space travel.
- The energy used by the EMdrive will be Solar energy, hence protecting environment.

6.13. TOBACCO FARMING

Why in news?
COP7 meet for WHO’s Framework Convention on Tobacco Control (FCTC) was held in New Delhi recently, health authorities and Governments across the Southeast Asia region — and the world — explored how best they can support tobacco farmers as demand-targeted initiatives make their mark.

Background
In the backdrop of declining demand for tobacco products among wealthier countries and measures to roll-back tobacco consumption in the developing world supporting the tobacco farmers and finding alternative livelihood has become necessary to secure their future.

Steps that can be taken by the government and local authorities-
- Providing training that gives the skills needed for tobacco farmers to diversify their crops and income, while also emphasising tobacco’s harmful environmental and health outcomes for consumers and farmers.
About Yamanaka Genes

- They are the four essential genes that can reprogramme the cells in our body and can be used to regenerate old cells or grow new organs.
- Collectively known as OSKM (for the initials of the genes, Oct4, Sox2, Klf4 and Myc), these Yamanaka genes are named after Japanese scientist Shinya Yamanaka.

About iPSCs

iPSCs are body (somatic) cells which have been reprogrammed to function like embryonic stem cells, thereby sidestepping the controversial use of killing the embryos while harvesting the stem cells.
- This is done by introducing four regulatory factors (pieces of DNA) into the cells.
- Scientists at the Guangzhou Institutes of Biomedicine and Health, China have claimed that they have improved the efficiency of Shinya Yamanaka’s invention of producing induced Pluripotent Stem Cells (iPSC) which won Nobel Prize in Medicine in 2012.

About Tobacco Farming in India

- In India, Tobacco crop is grown in an area of 0.45 M ha (0.27% of the net cultivated area) producing ~ 750 M kg of tobacco leaf. India is the 2nd largest producer and exporter after China and Brazil respectively.
- In the global scenario, Indian tobacco accounts for 10% of the area and 9% of the total production.
- It is grown largely in semi-arid and rain-fed areas where the cultivation of alternative crops is economically unviable.
- The distinctive and positive features of Indian tobacco include the lower levels of heavy metals, very low levels of Tobacco Specific Nitrosamines (TSNAs) and pesticide residues compared to the other tobacco producing countries in the world.
- Further, endowed with varied agro-climatic conditions, India has the capacity to produce different styles of tobacco ranging from coloury neutral filler to flavourful leaf catering to the needs of a wide variety of customers globally.
- In addition, production and processing costs of tobacco are also quite low in India, thus making the Indian tobacco price-competitive and value for money.

6.14. YAMANAKA GENES

Why in news?
- Recently, scientists have found a ‘stress factor,’ a pro-inflammatory molecule called interleukin-6 (IL6) that may be responsible for reducing the efficiency of the Yamanaka genes.
- With this finding the Yamanaka genes may finally result in practical therapy.

Significance of Yamanaka genes

- The introduction of these genes can convert adult cells into pluripotent stem cells.
- Can be used for RBC generation as type O red blood cells are synthesized from iPSC developed with Yamanaka genes.
- A big revolution as they can use for investigation of diseases and drugs.
- Can be used to synthesise new from stem cells.
- Can also be used to grow & repair tissues & vascular vessels.

Challenges

- The genes are not very efficient at reversing cell-ageing.
- There is a risk of incomplete programming.
- They may also induce a particular type of tumour (known as teratoma) that makes cell reprogramming incompatible with its potential clinical use.

But the supplies of autologous cells is unlimited & bypass the need for embryos, better understanding of these genes may lead to greatest achievements in medical treatments & research.
6.15. AQUAPONIC FARM

Why in news?
In the backdrop of a huge demand for organic farming in the country and reports of high level of chemicals and toxic in the vegetables the concept of kitchen gardening has come up. One such initiative is Aquaponic in Gurugram Haryana.

What is it?
Aquaponics, a technique that marries horticulture and aquaculture, helps the farmer raise fishes while he also grows plants.

How does it work?
- In aquaponics fish and plants are grown together in a tank. The tank has fishes in it and on the sides of the tank there are beds for plants. The water from the fish tank which is rich in nutrients due to the fish waste goes into the plants.
- The beds for supporting the plants can be made using material such as thermocol sheets or gravel.

Significance
- The setup cost of aquaponic farm might be higher than conventional farms, but the operational cost is much less.
- There is no need for fertilizers and the water requirement is 90% less than that required in conventional farming.
- Suits greatly to the demand of organic fruits and vegetables.
- The yield from aquaponics is two times higher than that of conventional farming.

However, there remains one restriction that fruits and vegetables which grow underground cannot be grown using aquaponics.

6.16. INTERNATIONAL CONFERENCE ON BRUCELLOSIS

The International Research Conference on Brucellosis held in New Delhi recently.

Significance of the conference
- Since, India is world’s largest milk producer and hosts ~20% of the world livestock population. There is an urgent need for addressing this important issue of not only livestock health and production, but also public health.
- Better understanding of the disease, vaccines & their effectiveness, control and eradication efforts.
- Help in the design of effective control strategies and potential eradication methods that are suitable for endemic countries as per the laws governing their livestock production systems.

India on Brucellosis
- India is a brucellosis endemic country with approximately 3 to 5% of cattle and buffaloes, and ~4% sheep and goats are infected with Brucella abortus and Brucella melitensis respectively.
- Infected animals abort in late stages of pregnancy, leading to loss of milk production, loss of calves and spread of infection from the infected discharges and aborted fetal tissues to other animals. Also, transfer the disease to the next generation animals in the herd.

About Brucellosis
- Brucellosis is a dreadful zoonotic disease caused by the genus of the bacteria known as Brucella infecting various species of Brucella cows, buffaloes, sheep, goats, deer, pigs, dogs and other animals as well as humans.
- People acquire the infection by consuming unpasteurized milk and other dairy products, and by coming in contact with the contaminated animal secretions and tissues.
6.17. PHOTOSYNTHESIS TO INCREASE CROP YIELD

Why in news?
- Recent trial on tobacco plant has shown that GM techniques can be used to increase efficiency of photosynthesis which could help meet the global demand for food.
- The scientists modified three genes with the aim of increasing the levels of three proteins that could help ramp up the efficiency of photosynthesis more quickly after exposure to bright sunlight.

What is the Natural process?
- Crop leaves exposed to full sunlight absorb more light than they can use. Chemical changes within the leaf allow the excess energy to be dissipated as heat, in a process called nonphotochemical quenching (NPQ).
- While plants switch on the quenching mechanism almost instantaneously – similar to the way in which the pupil in the human eye contracts in bright light – it takes much longer for it to switch off again.
- When a cloud crosses the sun, or a leaf goes into the shade of another, it can take up to half an hour for that NPQ process to relax. In the shade, the lack of light limits photosynthesis, and NPQ also wastes light as heat.
- The energy wasted after quenching reduces overall crop productivity drastically, by 7.5 to 30%, depending on the plant type and sunlight conditions.

Significance
- Genetically modified plants are better able to make use of the limited sunlight available when their leaves go into the shade.
- Previously, GM techniques have been used to produce crops that are pest-resistant, disease-resistant or less sensitive to herbicides, but this is one of the first demonstrations of a crop’s basic efficiency being improved.

6.18. QUANTUM COMMUNICATIONS

Why in news?
China recently launched a 712-km quantum communication line, stated to be the world’s longest secure telecommunications network, which boasts of ultra-high security making it impossible to wiretap, intercept or crack the information transmitted through them.

What is it?
- The technology allows one to distribute sequence of random bit sequence of photons whose randomness and secrecy are guaranteed by the laws of quantum physics.
- These sequences can then be used as secret keys with conventional cryptography techniques to guarantee the confidentiality of data transmissions.

Quantum communication is a field of applied quantum physics closely related to quantum information processing & quantum teleportation.
Applications

- Protecting information channels against eavesdropping by means of quantum cryptography.
- Its applications have been found into niche markets, and many university labs are working on futuristic quantum networks.
- Quantum communication, and more generally quantum information science and technologies, are here to stay and will have a profound impact on the 21st century.

6.19. DRONES AND DISASTER MANAGEMENT

Why in news?

North-Eastern Space Applications Centre (NE-SAC) of the Indian Space Research Organisation recently tested unmanned aerial vehicles (UAVs) to assess several regional problems, ranging from measuring diseased paddy fields to damage caused by frequent landslides.

Benefits of drone over conventional methods

- Use of drones cuts much leg work that ground surveyors must take up.
- Drone technology can reduce disaster worker exposure to unnecessary danger.
- Drones provide unique viewing angles at low altitudes not possible from manned aircraft.
- Drone technology is highly deployable. It can be launched in a variety of environments without the need for a runway.

Challenges

- The area studied by a drone will be smaller compared to the area assessed from space by satellites.
- The processing and storage of large amounts of data given by a drone are a problem.
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7. SOCIAL

7.1. PRADHAN MANTRI SURAKSHIT MATRITVA ABHIYAN (PMSMA)

About the PMSMA

- It has been launched by the Ministry of Health & Family Welfare (MoHW).
- It aims provide assured, comprehensive and quality antenatal care, free of cost, universally to all pregnant women on the 9th of every month.
- It envisages to improve the quality and coverage of Antenatal Care (ANC) including diagnostics and counseling services as part of the Reproductive Maternal Neonatal Child and Adolescent Health (RMNCH+A) Strategy.

The Highlight of PMSMA

- Participation of the Private Practitioners: The programme follows a systematic approach for engagement with private sector which includes motivating private practitioners to volunteer for the campaign developing strategies for generating awareness and appealing to the private sector to participate in the Abhiyan at government health facilities.
- Identification and follow up of high risk pregnancies. A sticker indicating the condition and risk factor of the pregnant women would be added onto MCP card for each visit:
  - Green Sticker - for women with no risk factor detected
  - Red Sticker – for women with high risk pregnancy
- A National Portal for PMSMA and a Mobile application have been developed to facilitate the engagement of private/voluntary sector.

7.2. BRICS URBANISATION FORUM

Why in News?
The 3rd BRICS Urbanization Forum Meet was held in Visakhapatnam. The theme was - “Building responsive, inclusive and collective solutions for urbanisation”.

About BRICS urbanisation forum

- The BRICS Urbanization Forum was established in 2011 at the 3rd annual BRICS summit in Sanya, China and the 1st BRICS Urbanization Forum was held in New Delhi.
- The Urbanization Forums were created with a focus on urban infrastructure to specifically discuss various thematic areas within the umbrella of urbanization and infrastructure.
- The main idea behind the forum is to –
  - Share urban knowledge
  - Develop mechanisms for peer-to-peer exchange,
  - Promote evidence-based policy making and
  - Learn useful lessons from individual experiences of ‘urban transition.
- Through the forum there is a collective bargaining power in the global economic order

7.3. SCHOOL EDUCATION QUALITY INDEX (SEQI)

- Niti Aayog has organised the first regional workshop on School Education Quality Index (SEQI) to improve the learning outcomes among school children.

About SEQI

- The SEQI is a composite index that will report annual improvements of States on key domains of education quality, conceptualized and designed by NITI Aayog and the MHRD.
• The larger vision of the index is to shift the focus of States from inputs towards outcomes, provide objective benchmarks for continuous annual improvements, encourage state-led innovations to improve quality and facilitate sharing of best practices.
• In order to precisely report the quality of education imparted across India, the SEQI is divided into two categories: 1. Outcomes and 2. Governance Management.
• These are further divided into three domains of Outcomes (Learning, Access and Equity) and two domains of Governance & Management (Governance Processes and Structural Reforms). Currently the index has 34 indicators and 1000 points, with the highest weightage given to learning outcomes (600 out of 1000 points).

What has been inferred workshop?
• Highest quality evidence available suggests that across the board increase in education spending in India has not led to an improvement in learning outcomes.
• Inputs such as infrastructure, teacher training, student-teacher ratio etc. alone have had negligible impact on student learning.
• Integrating inputs with accountability and early childhood literacy/numeracy will radically transform the quality of education imparted in schools.

7.4. WHO FRAMEWORK CONVENTION ON TOBACCO CONTROL (FCTC)

Why in News?
The seventh session of the Conference of the Parties (COP7) to the WHO Framework Convention on Tobacco Control (FCTC) was held in New Delhi.

About WHO FCTC
• The WHO FCTC is an evidence-based treaty that reaffirms the right of all people to the highest standard of health.
• The WHO FCTC was developed in response to the globalization of the tobacco epidemic.

Why the need for convention?
• The consequences of the on-going tobacco epidemic which, if unchecked, will kill about 1 billion people in the 21st Century.
• By 2030, over 80 percent of the world’s tobacco-related mortality will be in low- and- middle income countries.
• To cooperate internationally and research on tobacco use and tobacco control and its consequences among girls and women, as well as boys and men, with special attention to vulnerable groups, in respect to social determinants of health.
• Tobacco control is related to a number of Sustainable Development Goals and targets, including those related to the environment and human rights.

7.4.1. PICTORIAL WARNINGS ON TOBACCO
• India ranks 3rd globally among 205 countries with 85 per cent implementation of pictorial warnings on tobacco products pack.
• The top two countries are Nepal and Vanuatu.
• India has demonstrated global leadership by implementing 85 per cent pictorial warnings on all tobacco packages
• According to WHO, tobacco-related diseases kill about 2,500 Indians daily and over 10 lakh Indians a year.
• It is estimated that about 5,500 youth and children (as young as eight years old) initiate tobacco.
• India has 12 crore tobacco users, according to the Global Adult Tobacco Survey.
• The total direct and indirect cost of diseases attributable to tobacco use was Rs 1.04 lakh crore ($17 billion) in 2011 or 1.16 per cent of India’s GDP.
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7.5. SUPREME COURT’S GUIDELINES ON FEMALE FOETICIDE

Why in News?

Supreme Court issued a series of directions to control the crime of female foeticide, including an all-India database to keep tabs on the number and gender of new-born.

The Guidelines of SC

- **To maintain a centralised database**— All the States and the Union Territories in India shall maintain a centralized database of civil registration records from all registration units so that information can be made available from the website regarding the number of boys and girls being born.

- **Fast track court**—The Courts which deal with the complaints under the Act shall be fast tracked and the concerned High Courts shall issue appropriate directions in that regard.

- **Constitution of a Committee**—of having three HC Judges that can periodically oversee the progress of the cases.

- **Effective implementation of the Pre-conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994.**

- **The awareness campaigns**—with regard to the provisions of the Act as well as the social awareness shall be undertaken.

- **All India Radio and Doordarshan**—functioning in various States to give wide publicity pertaining to the saving of the girl child and the grave dangers the society shall face because of female foeticide.

- **Incentive Schemes**—directed that States and Union Territories, which do not have any incentive schemes for the girl child, shall frame the same.

7.6. NODAL AGENCY TO CHECK PRE-NATAL SEX SELECTION

Why in News?

- The Supreme Court had recently directed the government to constitute a nodal agency to monitor and trigger search engines to crack down on online pre-natal sex determination advertisements.

About the step taken

- The step has been taken as part of the **Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act (1994)** which states that no one shall be permitted to propagate sex selection in India.

- Nodal agency would give advertisements on TV, radio and in newspapers, that if anybody comes across anything which identifies a girl or a boy [at pre-natal stage], it should be brought to the notice of the nodal agency.

- Once it is brought to the notice, the agency shall inform the search engines and they, after receiving the information, are obliged to delete it within 36 hours and inform the nodal agency.

Why the need for such a step?

- As per the Census, 2011 the child sex ratio has shown decline from 927 females per thousand males in 2001 to 918 females per thousand males in 2011.

- To stop female foeticides. Over the past 25 years, more than 15 million girls have been eliminated because of determination of foetal sex before birth.

- Sex selection was introduced in India as a method to control population growth, however in recent times it has resulted in misuse for personal gains.

- Barely 3,000 cases have been filed against violators of the act over the past 21 years though half a billion medical crimes have been committed.

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<th>Initiatives towards checking decline in child sex ratio</th>
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<td>• Sukanya Samriddhi Yojana,</td>
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<td>• Pre-Conception and Pre-Natal Diagnostic Techniques</td>
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<td>(PCPNDT) Act (1994)</td>
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<td>• The Girl Child Protection Scheme of Andhra Pradesh</td>
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7.7. SAUR SUJALA YOJANA

Why in News?
- The PM on the occasion of 16th Foundation Day of Chhattisgarh had launched the Saur Sujala Yojana. Also, Chhattisgarh is the first state to implement the scheme.

About the scheme
- Under the scheme, solar powered irrigation pumps of 3HP and 5HP capacity would be distributed to farmers by March 2019.
- The scheme targets areas where there is no reach of electricity.
- Around 51,000 farmers would be benefited in the state with the launch of the scheme.

Advantages of Solar Powered Irrigation System
- The installation of solar pumps is done in arid regions such as in Africa, India and South America
- Aiming at increasing local farmers productivity and as a consequence, improving their living conditions.
- It helps in saving Energy.
- There is no fuel cost - as it uses available free sun light.
- It can be operated lifelong.
- It is highly reliable and durable.
- It is easy to operate and maintain.

7.8. KERALA DECLARED OPEN DEFECATION FREE

Why in News?
- Under the Swachh Bharat Mission (Gramin/Rural) Kerala has become the third State to be declared Open Defecation Free (ODF), Sikkim was first and Himachal Pradesh was second to be declared ODF.
- Kerala, with a rural population of approximately 3.5 crores, is also the largest State so far to have achieved the ODF Status, after Sikkim (6 lakhs) and Himachal Pradesh (70 lakhs).
- Earlier, Gujarat and Andhra Pradesh became the first states to be declared ODF in Urban Areas.

7.9. SMART GRAM INITIATIVE

Why in News?
- President Pranab Mukherjee had inaugurated a smart model village pilot project at the Rashtrapati Bhavan.
- The five villages which will be developed into the smart villages under this pilot project are Dhaula, Alipur, Harichandpur and Taj Nagar from Gurgaon district and Rojka Meo from Mewat district of Haryana.
- Recently there initiatives were inaugurated in these villages by the Chief Minister of Haryana.

About Smart Gram
- A smart gram would have the required basic physical and social infrastructure with a layer of smart information and communication embedded in the infrastructure to improve governance and delivery of services, livelihood and economic opportunities.
- The focus of Rashtrapati Bhavan is on creating a sustainable and inclusive development model that can be easily replicated.
- This model is based on the convergence of resources and effort by the central government, state government, district administration, panchayati raj institutions, public sector, private sector and enlightened villagers.
7.10. TREAD SCHEME

Why in News?

Recently the Ministry of Micro, Small and Medium Enterprises (MSME) started operating the scheme titled “Trade Related Entrepreneurship Assistance and Development (TREAD)” to promote women entrepreneurs.

About the scheme

- The scheme envisages economic empowerment of women through trade related training, information and counseling activities related to trades, products, services.
- Under the scheme, there is a provision for Government of India grant up to 30% of the loan/ credit maximum up to Rs. 30.00 lakh as appraised by lending institutions/ banks.
- The lending institutions/ banks would finance loan assistance for a group of women through NGOs for undertaking non-farm activities.

Significance

- With improving social-economic factors like higher education, higher support across family/work environment women are increasingly emerging as Entrepreneurs and Corporate Leaders.
- According to NASSCOM, Startups have grown by 125% from $2.2 Bn in 2014 to $4.9 Bn in 2015. Women’s participation has seen a 50% rise since 2014.
- Dedicated schemes like Trade Related Entrepreneurship Assistance and Development (TREAD) will enable trade related training, information and counseling.

7.11. NATIONAL E-HEALTH AUTHORITY

Why in News?

Recently the Government has announced the setting up a National eHealth Authority for the promotion of eHealth standards by the Ministry of Health and Family Welfare.

A brief Background for setting up NeHA

- The National Knowledge Commission (NKC) had recommended in 2008 formation of National Health Information Authority (NHIA) to support implementation on e-Health.
- High Level Expert Group (HLEG) set up by Planning Commission in the context of 12th Five Year (2012-2017) had recommended HER adoption and setting up of a nationwide network to support the same.
- They had done so as part of recommending Universal Health Coverage.
- ‘Digital India’ Program had been announced on August 2014 and a set of on-line Healthcare services are scheduled to be offered.

About NeHA

- It will be the nodal authority that will be responsible for development of an Integrated Health Information System (including Telemedicine and mHealth) in India.
- It will also be responsible for enforcing the laws & regulations relating to the privacy and security of the patients health information & records.
- NeHA will be setup through an appropriate legislation (Act of Parliament)
- The Chairman will be an eminent person in the field of Medicine, Public Health or Judiciary.

Functions of NeHA

- To guide the adoption of e-Health solutions at various levels and areas in a manner that meaningful aggregation of health and governance data and storage/exchange of electronic health records happens at various levels in a cost-effective manner.
- To facilitate integration of multiple health IT systems through health information exchanges.
- To oversee orderly evolution of state wide and nationwide Electronic Health Record Store/Exchange System that ensures security, confidentiality and privacy of patient data and continuity of care.
To engage with stakeholders through various means so that eHealth plans are adopted and other policy, regulatory and legal provisions are implemented by both the public & private sector stakeholders

To promote setting up of state health records repositories and health information exchanges.

To address the issues relating to privacy & confidentiality of Patients’ EHR in the legislation.

Benefits by Digitalising Health data by setting up of NeHA

- Better manage care for patients by providing accurate, up-to-date, and complete information about patients at the point of care;
- Access patient records quickly for more coordinated, efficient care;
- Share electronic information securely with patients and other clinicians;
- Diagnose patients more effectively, reduce medical errors and provide safer care;
- Prescribe more reliably and safer;
- Improve productivity and work-life balance; and
- Reduced cost through less paperwork, improved safety, reduced duplication of testing, improved health.

The Way Forward

- India spends around 4.1% of GDP on health, of which only about 1.1% is the contribution of the government.
- With its rich demographic dividend, the importance of a robust healthcare system increase greatly.
- Initiatives like NeHA in the otherwise problem ridden healthcare sector in India can surely help in refining India’s human development indicators.
- The necessary ingredients are all present: A digital health Greenfield, robust telecom infrastructure, unique ID authentication, and a large talented pool of IT professionals. Utilising them may allow India to shape healthcare delivery globally.

7.12. COMMERCIALISING MEDICAL EDUCATION

Why in news?
- The Medical Council of India has permitted corporates and "for profit" institutions to start medical colleges in the country.
- This comes nearly two months after the Niti Aayog committee recommended privatisation of medical colleges.

Need
- The justification for commercializing medical education is that it will incentivize investors to set up medical colleges, increase the supply of doctors, induce competition and reduce the cost of tuition fees and services.

Argument against commercialization
- The report says there should be no ceiling or regulation of fees in private medical colleges for the majority of students. This may lead to legalization of large sums of money being charged by many private medical colleges in modified form.
- It may contribute to a fall in qualitative standards by allowing money, power and political influences to affect results.
- The low number of doctors (As per WHO- one doctor for every 1,000 people) is indirectly linked to the high tuition fees as working in public sector isn’t as high paying as it is working for private clinics.

7.13. INDIA’S ASYLUM POLICY

Why in News?
- With the government highlighting human rights abuses in Balochistan, conversations about India’s asylum policy have arisen.
• Also the Rohingyas, an ethnic group from the Rakhine state in Myanmar, are seeking shelter in India.
• India has one of the largest refugee populations in South Asia, but is yet to enact a uniform law that addresses the issue of asylum.

State of refugees in India

• At the end of 2015, according to the United Nations refugee body, there were 2,07,861 persons of concern in India, of whom 2,01,281 were refugees and 6,480 asylum seekers.
• India has, over the years, offered shelter to Tibetans, the Chakmas of Bangladesh, Afghans and ethnic Tamil refugees from Sri Lanka.
  ✓ Tibetans who arrived between 1959 and 1962, were given adequate refuge in over 38 settlements.
  ✓ The Afghan refugees fleeing the civil war in the 1980s live in slums across Delhi.
  ✓ The Rohingyas, an ethnic group from the Rakhine state in Myanmar, are one of the most persecuted groups in the world. Over 13,000 Rohingya refugees are registered with the United Nations High Commissioner for Refugees (UNHCR) in India.

Reasons for India not signing the UN Convention:
• It can upset the demographic balance in the country as the borders around South Asia are porous.
• Due to the influx of refugees, it can put pressure on the local infrastructure as seen presently in the case of the European Developed countries.
• The convention provides 34 freedom and rights to the refugees; these are in confrontation with the rights enshrined in the Constitution.

How are the entry of refugees and asylum seekers determined in India?
• India has not signed the 1951 United Nations Refugee Convention on the Status of Refugees, or its 1967 Protocol that stipulates the rights and services host states must provide refugees.
• Refugees have been accorded protection by the judiciary (National Human Rights Commission vs State of Arunachal Pradesh, 1996).
• In addition, the Supreme Court has held that the right to equality (Article 14) and right to life and personal liberty (Article 21) extend to refugees.

Way forward
India remains the only significant democracy without legislation specifically for refugees. We need a system that enables the management of refugees with greater transparency and accountability, replacing one that offers arbitrary decision-making to a vulnerable, victimized, population.

7.14. HEALTH ISSUES: CHILDREN

About
• Our country is home to the largest child population in the world. A substantial 41 per cent, around 450 million, are children.
• However it is disappointing to see that for their education, health and protection merely 4 per cent of the gross domestic product (GDP) is being spent.
• Protecting and educating the world’s children is one of the great moral challenges of our time.
Diabetes in India
- India ranks among top 3 countries with diabetic population (China, India and USA).
- 50 million Indians are suffering from type-2 diabetes.
- Prevalence of diabetes has more than doubled for men in India and China (3.7% to 9.1% in India and 3.5 to 9.9% in China).
- The WHO estimates that 80% of diabetes deaths occur in low and middle-income countries and projects that such deaths will double between 2016 and 2030.

Health statistics
- It has been observed that among the general category of patients in public hospitals, about 70% were once child labourers.
- Only 65.3% of the under-five children fully immunized in India.
- 80% of the children fewer than three years of age are anaemic.
- Every 3 out of 5 children are malnourished.
- Over nine lakh children in India die before their first birthday.
- India accounts for nearly 50% of child brides in the world who are married before the age of 15 — threatening their personal well-being, development and their fundamental rights to health, education and freedom.

Reasons
- Constant exposure to smoke, dust, noxious gases, chemicals and high temperatures affects the lungs, eyes, and other vital organs of children.
- By letting manufacturers exploit them as inexpensive labour, the government is inheriting an army of sick and invalid persons in the years to come.
- The working children of today are virtually the liabilities of tomorrow.
- High among the causes of childhood malnutrition in India are vitamin and mineral deficiencies, as well as sub-optimal breastfeeding practices.

The way forwards
- A large portion of the government’s budgetary allocation will have to be accorded for health care and reparations in the foreseeable future.
- The Ministry of Health needs to forge stronger partnerships with the Ministry of Women and Child Development, Labour, Education, and other agents involved with children, since the largest determinants of health remain beyond their administration.
- There creating a shared value of children’s health across the various sectors is critical, even though structurally challenging to accomplish.
- Information and technology should be used proactively to make progress in the medical field.

7.15. MISSION MADHUMEHA THROUGH AYURVEDA

Why in News?
- On the occasion of National Ayurveda Day (28 October), the Ministry of AYUSH launched “Mission Madhumeha through Ayurveda”.
- The Mission will be implemented throughout the country through a specially designed National Treatment Protocol for effective management of Diabetes through Ayurveda.

Highlights
- The guidelines in the protocol will be sent to various state governments, which will further circulate them across various medical institutions.
- The Madhumeha Assessment Tool (MAT) based on Ayurvedic philosophy has also been developed for the self-assessment of the people with regards to possibilities of diabetes.
- The government is set to launch a mobile app which will suggest Ayurvedic medicines for diabetic patients.
  - The app will be meant for use by both practitioners of Ayurveda as well patients.
  - It will help in identifying the type of diabetes a patient is suffering from as well as recommend which Ayurvedic medicines can be administered to a patient.
  - The app is based on a set of guidelines issued by AYUSH.

Diabetes in India
- India ranks among top 3 countries with diabetic population (China, India and USA).
- 50 million Indians are suffering from type-2 diabetes.
- Prevalence of diabetes has more than doubled for men in India and China (3.7% to 9.1% in India and 3.5 to 9.9% in China).
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8. CULTURE

8.1. BHAKTI MOVEMENT

Why in News?
- Much like other civilizations, the image of the singer-songwriter in India has had a powerful impact on its society and history.

What is the Bhakti Movement?
- Bhakti movement refers to the religious movement during the medieval period which emphasized single-minded devotion to god.
- It originated in South India between 7th and 12th century. It then moved northwards.
- It achieved a great deal of popularity through the poems of the Alvars and Nayanars, the Vaishnavite and Shaivite poets
- Bhakti movement preached unity of God or one God through different names.
- It propagated the concept of Bhakti, intense love and devotion.
- It condemned rituals, ceremonies and blind faith.
- It preached open-mindedness about deciding religious matters.
- It challenged the caste distinction.
- Kabir, Guru Nanak, Mirabai, Surdas and Tulsi Das, Chaitanya are great exponents of Bhakti movement.

Impact of the Bhakti Movement on the Medieval Society
- The Bhakti movement helped bridge the gap between the Hindus and Muslims and encouraged religious toleration. It happened due to the leaders of Bhakti movement and the Sufi saints.
- The followers of this movement rejected the caste distinction.
- Importance of women in the social fabric increased. The practice of Sati took a backseat.
- The movement aroused an awakening among the people regarding futility of ritualism and superstitions.
- Some rulers adopted liberal policies under the influence of the Bhakti movement.
- Bhakti saints preached in the local dialects thereby promoting vernacular literature.
- It is known for giving birth to the new sect of Sikhism.
- The movement empowered those from the lowest rungs of society.

8.2. WORLD’S OLDEST ROCK ART FOUND

Why in news?
- Pre-historic paintings (Petroglyphs) have been found in the rock shelters of Bhimbetka, a world heritage site in Madhya Pradesh and at Dharaki-Chattan(hillock) near Bhanpura in Madnasur district, MP. They date back to 2-5 lakh years old.

Auditorium Cave, Bhimbetka
- Ten cupules (cup-shape hollows) were found covered by remains dating from the Acheulian period.
- The petroglyphs were created on heavily recrystallized, very hard quartzite that was extensively mined during the Lower Palaeolithic.
- Cupules are non-functional cup-shaped depressions found on a rock surface which are created by a number of human blows.

What is Petroglyph?
In prehistoric art, the term "petroglyphs" (derived from the Greek word "petra" meaning stone, and "glyphein" meaning to carve) is used to describe any image created on a rock surface by scouring, scratching, engraving, chiseling, carving or any similar method.

Difference Between Petroglyphs and Rock Art?
Whereas a petroglyph is a narrow type of stonework, the term "rock art" is a much wider term which embraces three types of art: (1) Petroglyphs; (2) Pictographs, including cave painting or any other form of pictorial symbol; and (3) Megalithic Art, or petroforms, involving the arrangement of stones.
Daraki-Chattan Rock Shelter

Two vertical panels densely pitted with 498 cupules dating from a Lower Palaeolithic chopping tool culture were found at a second Stone Age site at Daraki-Chattan, a small, narrow and deep cave in the Indragarh Hill, near Tehsil Bhanpura, Madhya Pradesh.

8.3. JALLIKATTU

Why in news?

The Supreme Court on Wednesday dismissed the review petition filed by Tamil Nadu to review a 2014 apex court judgment banning Jallikattu, a form of bullfighting, which has been popular for centuries in the state.

What is Jallikattu?

- It is a bull-vaulting event practised in Tamil Nadu as a part of Pongal celebrations on Mattu Pongal day.
- Participants tackle the bull in an arena by its hump and try to hang on till they cross the finishing line.
- It is popular in the districts of Madurai, Tiruchirappalli, Theni, Pudukkottai and Dindigul — a region also known as the Jallikattu belt.
- It is an ancient sport. Sangam literature (2nd BCE – 2nd CE), has many detailed references to Eru Thazhuvuthal (hugging the bull).
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9. ETHICS

9.1. CELEBRITY’S LIABILITY FOR ENDORSING PRODUCT

Why in news?
- The Consumer Protection Bill, 2015, which seeks to replace the Consumer Protection Act, 1986, by inserting tough measures for the protection of consumer rights and providing strict punishment to violators, is currently under consideration.
- It was referred to a Standing Committee, which gave a report suggesting measures like making celebrities accountable for the brands they endorse, and called for severe penalties such as jail term for celebrities endorsing the brands, publishers and broadcasters of misleading advertisements and manufacturers of such products.
- However, a high level Group of Ministers (GoM) recently decided that instead of jail term for the endorsers they would face a fine up to Rs 50 lakh and a ban on appearing for advertisements for up to three years.

Ethical issue
- Celebrities have faced criticism recently for not only endorsing products in misleading ads but also publicly supporting political or social causes. In this light the question that arises is whether celebrities should be liable for what they say or endorse in public? Should there be a greater vigilance on them as against a normal person?

Why should celebrity be held liable?
- Duty of Care
  - Being a public figure confers a certain status in our society and gives one great reach and influence. It is a fact that more people listen to them because they are ‘celebrities’.
  - The very basis of endorsing a product by a celebrity is the presence of trust and goodwill. The idea is to persuade the public by an identifiable individual who enjoys the confidence of the people.
  - Direct influence of celebrity on consumer behaviour is proven. That is why in India more than 50% of advertisements have celebrities in them.
  - Thus, there has to be a duty of care.
- Moral Responsibility
  - Even the celebrity knows his image and words will influence the choice/minds of the viewers. Thus, it becomes a moral responsibility on him to know about the properness of the product as he becomes an important link in the chain between the producer and final consumer.
  - Celebrities have moral obligation of care towards the vulnerable sections of society especially children who are most easily swayed by their endorsement.
- Commercial Linkage
  - The celebrity is making monetary profits by commercial exploitation of this goodwill. Thus, there lies a corresponding duty towards the consumers.
- Legal Liability
  - S.24 of the Food Safety and Standards Act, 2006 prohibits any person from promoting unfair trade practices which includes false or misleading advertisements.
  - S.53 of the FSS Act put a liability on the party to publication of false advertisement with respect to nature, substance, quality, etc of the product. A celebrity endorsing the products could be interpreted to be included in this.

Issue in making them liable
- It can be argued that the celebrity naturally should rely on the credibility of the experts on whose advice the product is being endorsed.
- Further, the celebrity would not have the time and resources to find out about the authenticity of the claims.
- However, in such cases it must be seen that the celebrity performs due diligence with respect to quality and claims of the product. She must take the extra effort to go through the reports which are available in public before taking the contract.
Way forward

- Celebrities have a duty of care towards the public and thus should perform due diligence on their behalf.
- Given that the public seems to credit celebrities with more knowledge than they should, celebrities probably have an extra duty to be clear about the gaps in their knowledge.
- Further, for products that are harmful when consumed in excess (e.g. soft drinks, junk food) the celebrity must precaution against excess consumption and entail advisory the long-term consequences.

9.2. CORPORATE GOVERNANCE

Why in news?

- Global Financial Stability report recently published by IMF suggests that while corporate governance norms have improved across emerging markets, corporate governance standards fell in India between 2006-2014.
- Also, the Chairman of TATA sons was sacked recently. These events bring into question the level of ethical corporate governance in the country.

Objective of Corporate Governance

- To build up an environment of trust and confidence amongst those having competing and conflicting interest
- To enhance the shareholders” value and protect the interest of other stakeholders by enhancing the corporate performance and accountability

Larger issue of corporate governance

- “Shareholder value” is an economic imperative. The business judgment rule allows boards and managers to easily get away with pet projects, the avoidance of difficult decisions, or the excuse that “as long as the music is playing (for our industry), we have to dance.”
- The single most important job of the board is getting the right CEO. A close corollary is its willingness to get rid of the wrong CEO.
- External shareholders are inherently, significantly constrained regarding what they can know. ex: the bonuses received by CEOs during the 2008 Financial Crisis.
- When it comes to executive compensation, “How” is much more important than “How much.”
- To provide a balance of advisory support as well as monitoring oversight.
- Overconfidence and hindsight bias stay enemies of effective governance.

Steps taken

- A new Companies Act which has tightened norms to be followed by firms;
- Tightening of regulations relating to minority protection by market regulator Securities and Exchange Board of India or Sebi, and
- Surge in investor activism in the country is helping corporate governance.
- Disclosures have increased in India as stated in the report and as is evident from the companies Act, 2013 and provision of e-voting facility to the shareholders, the indices for ’Protection of Minority Shareholders’ Interests’ and ’Strength of Auditing and Reporting Standards’ ought to increase.
- Maintaining freedoms of cyberspace.

9.3. RIGHT TO BE FORGOTTEN

Why in news?

The EU Court of Justice ruled, ”Individuals have the right -- under certain conditions -- to ask search engines to remove links with personal information about them.” This means that search engines like Google and Bing will have to remove some search results from their pages.
What is it?
The right to be forgotten “reflects the claim of an individual to have certain data deleted so that third persons can no longer trace them.” It is in coherence with the right to privacy too.

Arguments against

- **Censoring and Media:** Any sort of censoring is bad. It censors what we see. Media and Internet companies support for information to stay online (except when unlawful under defamation, copyright, or criminal law).
- **Against FRs:**
  - It is a violation of the freedom of expression.
  - Journalists lose their livelihood. Hence, it is against right to livelihood too.
  - Restricting online space may lead to ‘partisan’ removal of important content against a particular organisation or individual. It is against right to information. For ex: Reliance, Satyam scandal.
- **Controlling social behaviour:** It is a significant tool for social control by sensitising human behaviour and upholds the mores of a society.
- **Reputation and integrity:** “Right to be forgotten” will make it difficult for people to maintain the hard earned reputation and integrity. For example, Vijay Mallya’s information or Kingfisher’s info, if removed after some years, it may remove incentive to walk the right path.
- It may be used for **violating ‘net neutrality’** by giants like Google in future.

Arguments in favour

- **Reformative justice:** “Right to be forgotten” is necessary to provide conditions where offenders after conviction of their sentences can live their reformed lives.
  - To prevent them from being bullied, the right is necessary. For eg. a sex offender
  - For solidarity and respect, for respect and dignity of humanity – such content has to be removed.
  - Without this right, it’ll be very hard to change the ‘moral and political attitudes’ of general society.
  - In the real world, information sediments over time, affording people the capacity to move on, remembering but not being burdened by their past.
- **Individual right to privacy:** If someone doesn’t want their personal information, it has to be taken down. Following are related aspects:
  - **Demand for removal:** Google received over 50,000 requests for articles to be removed from search results
  - Consent: Many videos are uploaded without ‘consent’. If there is data which hurts the people’s privacy, then it must be taken down.
  - Also privacy is a Fundamental right, under Art. 21 by SC in Kharak Singh case.
  - Also much of content is just ‘rumours’ or just ‘speculations’. Celebrities suffer a lot from this.
- **New Digital Age:** People are unaccustomed to internet and make a lot of mistakes, and learn from them, but with smartphones in almost everybody's hands, those mistakes may never be able to be forgotten without rulings like in the EU.
  - This is more than ‘double jeopardy’.
  - With the cyber bullying, young people, adolescents and kids are especially vulnerable.
- **Reputation:** Many articles based on ‘half-truths’ still continue on Internet even after ‘criminal defamation’ case is won by the victim. The presence of this data on Internet is itself a crime, which has to be taken down meticulously.
- **Unnecessary information:** The original sources of information which are decades old are static, unrepresentative reminders of lives past, lacking the dynamic of reality. For Example
  - Victims of rape, assault or other criminal acts; that they were once an incidental witness to tragedy.
  - Revenge posts for a person’s name remaining an unduly prominent part of a person’s Internet footprint.

Takeaways from Right to be forgotten

- EU ruling supports for removal of all the “incorrect, inadequate or misleading”. The relevant information remains accessible. For example-information about elected politicians, public officials, professionals and criminals.
The point of having this right is not to manipulate memory or eliminate information, but to make it less prominent, where justified, and combat the side-effects of this uniquely modern phenomenon that information is instantly, globally, and perpetually accessible.

**Way Forward**

- The control over our personal data has already been lost online: lost to corporations, to governments; to each other as a trade-off to be empowered by huge benefits of digital connectivity and global information flows.
- Right to be forgotten need to be in sync with “right to delist” as impact of the label “right to be forgotten” takes the issue into debates of-- forgetting vs remembering, privacy vs freedom of expression, censorship vs truth or history.

We need to make a consensus about who is going to decide which content to be removed is important for maintaining impartiality, objectivity

### 9.4. ASYLUM ISSUE

**Why in News?**

- Brahambagh Bugti, the Baloch leader who left Pakistan in 2006 sought asylum in India in September 2016. The application is being examined by the government.

**India’s stand for refugees**

- India does not have any law governing the issue of asylum nor does the term “refugee” appear in any of the domestic laws.
- The government decides on granting asylum depending on case-to-case basis.
- In 1959, India gave asylum to the Dalai Lama and other Tibetans and regarded them as refugees. However, it did not get involved in the conflict between Tibet and China.
- India has also provided Taslima Nasreen visa from time to time since 2004 after she was exiled from Bangladesh.
- In December 2015, Congress MP Shashi Tharoor introduced a Private Member’s Bill called the Asylum Bill, 2015. The Bill is yet to be taken up for consideration.

**Ethical Issues involved**

- Safety of the citizens when asylum is granted to any individual simply on humanitarian grounds.
- Consensus on criteria for granting asylum to an individual.
- Preparedness of the country for granting asylum to thousands of individuals after a few have been granted the same.
- Question of fairness over livelihood of people of the country to let outsiders enjoy the same opportunities as them.

**Way Forward**

- Proper background check should be carried out for each asylum seeker.
- Impact of granting asylum on the livelihood and lifestyle of the citizens of this country must be assessed.
10. ALSO IN NEWS

10.1. SPECIAL COMMITTEE FOR INTER-LINKING OF RIVERS

**Why in news**
- Union Cabinet has given its approval to the **Status-cum-Progress Report** and constitution of “**Special Committee for Inter-Linking of Rivers**” in compliance of Supreme Court judgment

**Significance**
- It will **help in monitoring** of the precious Inter-linking of River Projects to be carried out under National Perspective Plan 1980 of Government of India.
- Status-cum-Progress Report will be **submitted bi-annually** for information of Cabinet.
- In February 2012, the Supreme Court allowed interlinking of rivers with the condition that Special committee should be established for timely completion of feasibility reports and to ensure completion of projects on time.
- It is chaired by Union Minister for Water Resource, River Development and Ganga Rejuvenation. The Director General of National Water Development Agency is the Member Secretary of the Committee.

10.2. VOTER HAS RIGHT TO KNOW CANDIDATE’S QUALIFICATION: SC

**Why in news**
Recently Supreme Court has held that every **voter has a fundamental right to know** the educational qualification of a candidate.

**Key facts**
- The **Manipur HC** had declared as “void” the election of Mr. Prithviraj in the 2012 polls from the Moirang Assembly seat in Manipur. It was alleged that Mr. Prithviraj, in his nomination papers, had said he was an MBA, which **was found to be incorrect**.
- Any false declaration can warrant rejection of nomination papers.
- Right to vote would be meaningless unless the citizens are well informed about the antecedents of a candidate.
- According to the provisions of the **Representation of the People Act 1951, Rules and Form 26** that there is a duty cast on the candidates to give correct information about their educational qualifications.

10.3. DELAY IN APPOINTMENT OF LOKPAL

**Why in news?**
Supreme court slammed government for uncharacteristically “dragging its feet” on the appointment of anti-corruption ombudsman, Lokpal, to usher in probity in public life.

**Background of the Issue**
- The **Lokpal and Lokayuktas Act** has not seen the light of day since it was made into law in 2013.
- The law requires **Leader of Opposition** in the Lok Sabha to be member of the selection panel.
- But there is no designated leader of opposition in the Lok Sabha as the Congress does not have the requisite numbers.
- Government **introduced an amendment** to the Lokpal law to address the situation.
- But the amendment bill also proposed many other changes and there have been no consensus over them.
- SC says if the government takes too long to clear the legal hurdle, it will order inclusion leader of largest opposition party in the selection panel.
- The leader of the single largest opposition party in the Lok Sabha, in case of an absentee LoP, has found a place in other high-profile appointments like the Central Vigilance Commissioner.
10.4. AIRSEWA PORTAL

Why in news?
Minister of Civil Aviation launched Air Sewa portal to provide a hassle-free and comfortable air travel experience to people.

Features
- It will be operated through an interactive web portal as well as through a mobile app.
- The portal will include a mechanism for grievance redressal, backoffice operations for grievance handling, flight status/schedule information, airport Information and FAQs.
- AirSewa attempts to provide a systematic approach to redressing passenger grievances by getting the various players who are a part of the civil aviation ecosystem on to a common platform.
- Nodal officers have been selected for all stakeholder agencies who will address the grievance in a time bound manner.
- Airport information provided through the portal will include basic details and contact information regarding airport services, such as wheelchair, transport / parking and Wi-Fi services.

10.5. INDIA-NEPAL

Why in news?
Indian President recently visited Nepal. The last presidential visit was 18 years ago.

Outcome of the Visit
- There were no significant outcomes of the visit. It was a symbolic visit only.
- Although, it restored a degree of balance in India-Nepal relations that have been through a turbulent period since Kathmandu’s adoption of the new constitution in September 2015.
- The two Presidents talked of history, civilization, culture, geography, and the proximity between the people of the two countries – all of which bring them uniquely closer.

10.6. NSG CONSULTATIONS MEETING

Why in news?
The meeting of the NSG Consultative group was held in Vienna which ended inconclusively to be continued in 2017. It didn’t make any headway on India’s application for membership.

Outcome of the meeting
- Majority of the members supported a two-step process involving:
  i) agreement on objective and non-discriminatory criteria and
  ii) consideration of applications membership for non-NPT states
- China’s push for a two-step process — to first identify the criteria for non-signatories to the Non Proliferation Treaty (NPT) — as both India and Pakistan are, was considered by the 48-nation group.

(10.7. SEBI TIGHTENS NORMS FOR CREDIT RATING COMPANIES

Why in News?
- SEBI (Securities and Exchange Board of India) tightened disclosure norms for credit rating agencies.
- This has been announced in lieu with the sudden downgrades and rate cuts in the recent past.

What is it?
- SEBI has asked credit rating agencies to disclose the basis on which they rate companies, rating history as well as the responsibilities of the analysts.
The criteria to judge companies would include criteria for analyzing financial ratios, treatment of consolidation of firms, parent’s group support, and nature of business.

The rating process has to be reviewed periodically.

Any change in the rating process has to be disclosed publically along with the original provision.

Any rating agency must not stop rating a company abruptly. If the issuer does not co-operate then the rating agency must continue with the data available in public domain.

**Significance**
- It can help bring transparency in rating process.
- It will curb rate shopping and rating suspension.

### 10.8. KG BASIN ISSUE: GOVERNMENT IMPOSES FINE ON RIL

**Why in News?**
- Government has sought USD 1.55 billion from Reliance Industries and its partners: BP Plc. and Niko Resources Ltd. for extracting gas belonging to ONGC from the Krishna-Godavari Basin in the past seven years.

**Background**
- ONGC claimed that between 1 April 2009 and 31 March 2015, 11 billion cubic metres of gas flowed from ONGC’s field to RIL’s adjacent field.
- This claim was made citing the report by US-based consultancy firm, DeGolyer and MacNaughton (D&M). D&M was jointly hired by RIL and ONGC.
- A committee was appointed under Justice A P Shah to look into the matter.
- The committee commented that RIL must pay the government for the gas it has drawn from an adjacent block from the KG basin in the past seven years.
- The panel also said that the compensation must be paid to the government and not to ONGC since ONGC has no an ownership right or possessory interest in natural gas.

### 10.9. SEBI EASES RULES FOR ANGEL INVESTORS

**Why in news?**

**Details**
- SEBI increased the upper limit for number of angel investors in a scheme from 49 to 200.
- The requirement of minimum investment amount by an angel fund in any venture capital undertaking has been reduced to Rs. 25 lakh from earlier Rs. 50 lakh.
- The definition of startup for Angel Funds investments will be similar to definition of DIPP as given in their startup policy. Accordingly, Angel Funds will be allowed to invest in startups incorporated within five years, which was earlier three years.
- The lock-in requirements of investment made by angel funds in the venture capital undertaking has been reduced from three years to one year.
- Such funds have been allowed to invest in overseas venture capital undertakings up to 25 per cent of their investible corpus in line with other Alternative Investment Funds (AIFs).

### 10.10. BLACKLISTING POLICY FOR TAINTED DEFENCE DEALS APPROVED

**Why in news?**
- The Defence Acquisition Council (DAC) approved the long pending policy for blacklisting firms involved in corruption in arms purchases.
What are the key takeaways of the new policy?

- The details of the blacklisting policy will be made public soon.
- Instead of blanket blacklisting of firms involved in corrupt practices, heavy fines could be imposed with banning as the last resort, as it had begun to hurt defence preparedness recently.
- The DAC, headed by Defence Minister, also accorded approval to begin the procurement process for fighter jets, tanks and attack helicopters cumulatively worth over Rs. 82,000 crores, all produced domestically.

10.11. EVIDENCE OF LOST CHANDRABHAGA RIVER FOUND

- Scientists have found evidence of the mythical Chandrabhaga River near the UNESCO world heritage site of Konark Sun Temple in Odisha.
- This river figures prominently in ancient literature, although at present no river exists in the proximity of the Konark Sun Temple.
- An aerial examination of the area through satellite imagery depicts the trail of a lost river which is otherwise difficult to identify in the field.
- The existence of a palaeochannel at some locations is further corroborated through shallow surface geophysics using ground penetrating radar.
- The geological map shows that the study area is covered with alluvium, a deposit characteristic of rivers.

10.12. FLOOD RISK TO HIMALAYAN HYDRO POWER PROJECTS

- A new study has found that about 66 per cent of the constructed and the potential projects in the Himalayan regions spanning across India, Pakistan, Nepal and China, are on possible Glacier Lake Outburst Floods (GLOF) tracks. This means they could be gorged with extra water from melting glaciers.
- Global warming and other changes in the Himalayan ecology have disrupted the natural flow of rivers. There have been evidences of increase in the rate of melting of glaciers.
- Experts, thus, suggest that potential hydro power projects in the Himalayan region would need to factor in chances of increased floods due to such changes. This requires extra design and safety features.
- The government must take these factors into account while doing the Environment Impact Assessment (EIA).

10.13. MYSTERY BEHIND BIRTH OF SATURN’S RINGS SOLVED

Why in news?
- A study conducted by researchers at Kobe University and Tokyo Institute of Technology, Japan have concluded that planetary rings that surround Saturn, Neptune and Uranus were formed 4 billion years ago.
- Researchers believe that these were formed when large objects passed very close to the planets and got destroyed by them.

What is it?
- The giant planets in the solar system have very diverse rings.
- While that of Saturn is made mostly of icy particles, the rings of Uranus and Neptune are darker and may have higher rock content.
- Researchers used computer simulations to study the disruption of Kupier belt objects by tidal force when they passed by the planets.
- Researchers calculated that this happened during the Late Heavy Bombardment.
- It is thought that Pluto-sized objects from the Kupier belt existed beyond the Neptune.

10.14. SMART INDIA HACKATHON 2017

- The ‘Smart India Hackathon 2017’ is a pan-India 36-hour nonstop digital programming competition which will take place in more than 20 centres simultaneously.
- The initiative seeks to challenge the students of all the technology institutions in India to find innovative solutions to some of the daunting problems faced by our nation.
The Hackathon will have nearly 500 problem statements in the beginning. For example, developing a dynamic Health Map that can tap into online data sources to ensure rapid response to disease outbreaks such as H1N1, dengue and chikungunya through faster information flow between public health systems.

**Significance:** The initiative will help institutionalize a model for harnessing the creativity and skills of youth for nation-building.

### 10.15. FRANKENFIXATION

**Why in news?**

- The U.S. Department of Energy’s Joint Genome Institute recently oversaw an effort to piece together an artificial metabolism from the bits and pieces of biosynthetic pathways that were once scattered.
- They found a novel pathway based on a new CO2-fixing enzyme that is nearly 20 times faster than the most prevalent enzyme in nature responsible for capturing CO2 in plants by using sunlight as energy.
- **Frankenfixation** refers to the use of genetic modification to fix carbon dioxide into the soil.

**Significance**

- With this pathway, new species of plants, trees or entirely new organisms, could be grown that are specifically designed to take in carbon dioxide from the atmosphere and hold off the looming crisis of rising global temperatures.

### 10.16. INDIA-UK NEWTON FUND RESEARCH PROGRAMME

- India and the UK have announced a Newton Fund research programme worth up to USD 80 million to jointly address global societal challenges.
- An annual USD 1 million **Newton Prize** was also launched recently. The prize will recognise the Newton Fund's best science or innovation that promotes economic development and social welfare of partner countries.
- For 2017, the prize is open to entries from India, Malaysia, Thailand and Vietnam which focus on the grand societal challenge of public health and well-being, covering issues such as anti-microbial resistance, disease, healthcare, and nutrition.

### 10.17. TRI-NETRA IN RAILWAYS

An advanced system called "Tri-Netra" is being used on trial basis for Indian Railways. It stands for “terrain imaging for diesel drivers infrared, enhanced optical and radar assisted system”.

**What is it?**

Tri-Netra system is made up of a high-resolution optical video camera, high-sensitivity infrared video camera and a radar-based terrain mapping system.

**Significance**

- The system provides a locomotive pilot a clear view of up to one kilometre on a straight track, even during inclement weather.
- It helps in maintaining high speed in poor visibility and avoids delay in arrivals.
- It will help reduce train accidents by keeping a record of the track maintenance.
10.18. CENSUS 2011- DIFFERENTLY ABLED PERSONS TO EDUCATIONAL INSTITUTIONS

- According to recently released 2011 Census data almost two-third, 40.2 lakh (61.2%) of the differently-abled population in the category of 9-11 attended educational institutions in 2011.
- This is an improvement of 11 percentage points from 2001 when 33 lakh (50%).
- The enrolment figure is 10 percentage points lower than that of the total population — 71%.
- Around half of the people with ‘multiple disability’ (54.4%) and ‘mental illness’ (50.3%) did not attend any educational institute.

10.19. GOOGLE TO GIVE VIRTUAL TOUR OF MONUMENTS

Why in News?
- Google has tied up with Archaeological Survey of India for the creation of 360 degree virtual tour of 280-odd monuments across the country.

What is it?
- The virtual tour will be available in Google maps.
- Some of the monuments included are Taj Mahal, Victoria Memorial and the ruins of Hampi.
- 30 of the 280 monuments are in West Bengal.
- Google has launched an array of products in India like the offline maps, live traffic alerts and inclusion of unknown places on the maps by local guides.