VISION IAS

CURRENT AFFAIRS
MAY 1-15 – 2017

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1. POLITY AND CONSTITUTION

1.1. LOKPAL AND THE LAW

Why in news?

- Recently, the Supreme Court made it clear that the existing Lokpal and Lokayuktas Act, 2013 is workable in its present form.

Why clarification was needed?

- Government argued that in the absence of leader of opposition, selection committee could not be constituted and it has introduced an amendment to the lokpal act to address the situation.
- Thus, the court clarified that the Act provides for the selection committee to make appointments even when it is truncated due to a vacancy.

Some important features of the Lokpal and Lokayuktas Act

- **Constitution** of Lokpal at the Centre and Lokayukta in states - States to set up lokayukta within a period of 365 days from the date of commencement of the Act.
- **Composition** - Lokpal will consist of a chairperson and a maximum of eight members, of which 50 per cent shall be judicial members and 50 per cent of members of Lokpal shall be from SC/ST/OBCs, minorities and women.
- **Selection committee** - The selection of chairperson and members of Lokpal shall be through a selection committee consisting of Prime Minister, Speaker of Lok Sabha, Leader of Opposition in the Lok Sabha, Chief Justice of India or a sitting Supreme Court judge nominated by CJI, eminent jurist to be nominated by the President of India on the basis of recommendations of the first four members of the selection committee.
- **Jurisdiction of lokpal** - Prime Minister has been brought under the purview of the Lokpal. All entities receiving donations from foreign source in the context of FCRA in excess of Rs 10 lakh per year are brought under the jurisdiction of Lokpal.
- **Power with respect to CBI** - Lokpal will have power of superintendence and direction over any investigation agency including CBI for cases referred to them by Lokpal. Transfer of officers of CBI investigating cases referred by Lokpal with the approval of Lokpal.
- **Attachment of property** - The act also incorporates provisions for attachment and confiscation of property acquired by corrupt means, even while prosecution is pending. The act lays down clear time lines for preliminary enquiry, investigation and trial.

Issues with lokpal

- **Delay in appointment of Lokpal** due to the lack of political will.
- **Dilution of provisions through amendment** – The bill passed in 2016 has done away with statutory requirement of public disclosure the assets of public servants' spouses and dependent children.
- **Non-convergence with PCA –** The vesting of power of prior sanction with Lokpal has been almost nullified with amendments in prevention of corruption act which strengthen the requirement to seek government's permission.
- **Against separation of power –** Lokpal, being an administrative committee (a part of the executive), amounts to judiciary being proposed for executive duties .
- **Free hand to states** – The determination of nature and type of lokayuktas has been completely left on the state's discretion which leads to various problems. For example – misuse of power in appointment such as the lokayukta of UP remained in the post even after the once extended duration was also ended.
- **Ambit of Lokpal** – judiciary is totally excluded.

Way forward

While the Lokpal bill has been passed by Parliament, a number of steps still needs to be taken to make it effective such as:

- Effective implementation of the passed bill.

- Passing of other supporting bills which address issues related to tackling corruption such as citizen charter and electronic public service delivery, whistle blower protection, judicial accountability, etc.
- Strict guidelines and norms need to be setup to ensure that the institution of Lokpal does not get buried into day to day complaints regarding administrative inefficiency, corruption etc.

1.2. NATIONAL DEVELOPMENT AGENDA

Why in News?

- NITI Aayog recently prepared a draft three year action agenda which is a part of the overall National Development Agenda.

Background

- Planning Commission was abolished in 2014 and thereby the relevance of five year plans ended.
- Thereafter the Prime Minister Office advised NITI Aayog to prepare

Source: NITI Aayog)

a National Development Agenda comprising of Fifteen Year Vision, Seven Year Strategy and Three Year Action Agenda.

Provisions

- NITI Aayog has selected some key items for its draft 3 year action agenda. These are:
  o **Three year revenue and expenditure framework**
  o **Energy**
  o **Governance, Taxation and Regulation**
  o **Doubling Farmers' income by 2022**
  o **Job creation in industry and services**
  o **Urban Development**
  o **Regional Strategies** for regions like North East, Desert Areas, Coastal regions, Drought regions and Himalayan region.
  o **Transport and Digital Connectivity -** Facilitate PPPs by reorienting the role of the India Infrastructure Finance

Company Ltd. (IIFCL), introduce low cost debt instruments and operationalize the National Investment Infrastructure Fund (NIIF).

o **Science and Technology –** Create national database of schemes, create National Science, Technology & Innovation Foundation etc.

Significance

- With a more open and liberalized economy, the planning agenda had to be changed according to the recent economic realities. Therefore comprehensive plan for long term and short term is a welcome step.
- It would create a multisectoral approach to developing an inclusive and sustainable economy.

1.3. INTEGRATED CASE MANAGEMENT INFORMATION SYSTEM

Why in news?

- The 'Integrated Case Management Information System' (ICMIS) has been introduced in the apex court for digital filing.

Functions of ICMIS

- Its functions include the option of e-filing cases, checking listing dates, case status, online service of notice/summons, office reports and overall tracking of progress of a case filed with the apex court registry.
- It will operate as an online gateway for payment of court fee and process fee, an online court fee calculator.

Benefits of ICMIS

- This will streamline the filing process for both the advocates and the registry.
- This will ensure transparency, provide easy access to case information and help in reducing the time in filing pleadings which, in turn, would increase the pace of judicial process.

1.4. ICT VISION DOCUMENT 2025

Election commission has come up with ICT vision document 2025 which spells out the strategy of adopting recent technologies and consolidating existing technologies in the Election ecosystem. There are four major components of the ICT 2025.

o Integrated Software application.
o GIS, Analytic and Integrated Contact Centre.
o IT infrastructure including data center, IT security, disaster recovery.
o Knowledge Management, Capacity building and social media engagement.

1.5. MUNICIPAL BONDS

Why in News?

- Recently, 94 cities across 14 states received credit ratings from agencies such as Crisil as part of their preparations for issuing municipal bonds.
- It rated the cities covered under Smart city Mission and AMRUT mission.
- 55 of these cities got "investment grade" ratings, 39 received credit ratings below the investment grade (BBB-).

DETAILS OF CITIES AND TOWNS AND RESPECTIVE CREDIT RATINGS:

Credit ratings	Cities/Towns
AA+	New Delhi Municipal Council (NDMC), Navi Mumbai and Pune
AA	Ahmedabad, Visakhapatnam and Greater Hyderabad Municipal Corporation
AA-	Surat, Nashik, Thane and Pimpri-Chindwad
A+	Indore, Kishanganj(Rajasthan), Kolkata, Vadodara(Gujarat) and Warangal(Telangana)
A	Jhunjhunu (Rajasthan)
A-	Alwar, Bhiwadi, Beawar, Jaipur(Raj), Bhopal,Jabalpur(MP), Mira Bhayandar(Maha) and New Town Rajarhat(W.Bengal)
BBB+	Ajmer , Kota and Udaipur(Rajasthan), Ludhiana(Punjab) and Jamnagar(Guj)
BBB	Kakinada, Anantapur, Kurnool and Tirupati (Andhra Pradesh), Davanagere and Hubballi-Dharwar(Karnataka), Kochi and Trivendrum (Kerala), Panaji (Goa), Kolhapur and Nagpur(Maharashtra), Jodhpur, Nagaur and Tonk(Rajasthan)
BBB-	Amaravati (Maharashtra), Belgavi (Karnataka), Bharuch and Bhavnagar (Gujarat), Bharatpur, Bhilwara, Bikaner and Hanumangarh(Rajasthan), Chittor and Cuddapah (Andhra Pradesh), Cuttack (Odisha), Ranchi (Jharkhand).
BB+	Proddatur, Nandyal and Nellore (Andhra Pradesh), Kollam and Kozhikode (Kerala), Kalol, Nadiad and Navsarai (Gujarat), Nanded and Solapur (Maharashtra), Gangapur City, Dhaulpur, Pali and Sawai Madhopur (Rajasthan)
BB	Adoni and Tadipatri (Andhra Pradesh), Dwaraka (Gujarat), Aizawal (Mizoram), Thrisur (Kerala), Berhampur, Rourkela and Sambhalpur (Odisha), Bundi, Churu, Chittorgarh, Hindaun, Jodhpur and Sujangarh (Rajasthan)
BB-	Adityapur, Chas, Deogarh and Giridh (Jharkhand), Mori (Gujarat), Baran and Jhalawar (Raj)
B+	Baripada and Puri (Odisha) and Hazaribagh (Jharkhand)
B	Bhadrak (Odisha)

Source: Ministry of Urban Development

Need

- Indian cities revenue is **less than 1% of gross domestic product**. The net result is that cities do not have adequate financial autonomy.

Background

- The **committee on urban infrastructure** headed by **Isher Judge Ahluwalia** (2011) had estimated that Indian cities would need to invest around Rs 40 trillion at constant prices in the two decades to 2031.
- **Municipal bond regulations were released by the SEBI in 2016**.
    - Municipal bonds in India shall enjoy tax-free status if they conform to certain rules and their interest rates will be market-linked.
    - Municipal Corporation needs to have **investment grade credit rating** and **must contribute at least 20 per cent of the project cost**.
    - The corporation must **not have defaulted on any loans in the last one year**.
    - The corporation is required to **maintain full asset cover** to repay the principal amount. Revenues from the project for which bonds were raised are to be **kept in a separate escrow account** and banks or financial institutions would monitor the account regularly.
- In 2017, NITI Aayog in its Three-year Action Agenda document also talks of utilizing Municipal Bond market.

Significance

- Low cost of borrowing will be an advantage for the ULBs, whose projects typically have low viability, long gestation period and low to moderate cost recovery. Higher the rating of corporation, lower is the interest and cost of borrowing.
- Municipal Bonds are necessary for the financial independence of the Urban Local Bodies.

Challenges

- Bond investors are unlikely to put money into cities unless they are convinced about their fiscal strength.
- Till now **most of the municipal bonds have been privately placed and not tradable**. This has disincentivized the adoption of municipal bonds. There is a **need of State guarantees** for the bonds.

MUNI MATTERS

FUND FUNDAS

- In India, urban local bodies (ULBs) can raise funds of **Rs 10,000cr** from markets by issuing munis
- States willing to tap market need **projects rated by Crisil, ICRA or Fitch**
- Move to give municipal bodies **more resources** to fund infra needs
- Market for munis in India almost **non-existent** unlike countries such as US where this is principal mode of financing urban infrastructure
- Developing countries like **South Africa, Hungary, Russia, and Mexico** also have developed muni markets
- Push to govt's **city-building project**, munis seen as fund-raiser beyond Centre & state grants, PPPs
- Munis market saw promising start,

but drastically slowed last decade

- **Market peaked in 2005-6** when ULBs raised Rs 3,000m (compared to Rs 750m in 2001)
- **Fell sharply.** In 2007, total turnover in muni market was Rs 300m
- **Unrealistic** to expect cities to have track record & credibility to mobilise private funding
- Small/medium ULBs **can't access capital markets** directly on strength of their balance sheets
- Only large ULBs such as **Ahmedabad, Indore, Pune, Kolkata, Hyderabad** etc able to utilize munis
- Now even these find it hard to raise funds via munis
- Ahmedabad Municipal Corp first ULB to access Indian capital market

Amount of municipal bonds placements (1997-2007) (World Bank)

City	Amount (Rs million)	Interest (%)
WATER SUPPLY & SEWERAGE		
Ahmedabad	1,000	14%
Ludhiana	100	13.5-14
Nagpur	500	13
Nashik	1,000	14.75
Ahmedabad*	1,000	9
Tamil Nadu**	110	9.2
CITY ROADS, STREET DRAINS		
Bangalore	1,250	13
IMPROVEMENT OF CITY ROADS		
Indore	100	
Madurai	300	12.25

*Tax free **Pooled Financing

Source: Working paper on Financing via Municipal Bonds in India, International Growth Centre, London School of Economics (April 2013), Icrier, TOI

Amount of municipal bonds placements (1997-2007) in Rs million

0   500   1000   1500   2000   2500   3000
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
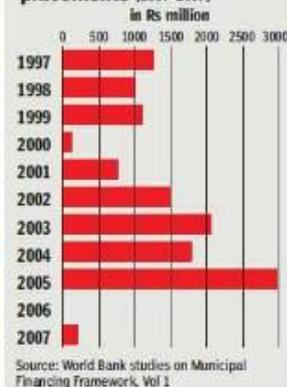
Source: World Bank studies on Municipal Financing Framework, Vol 1
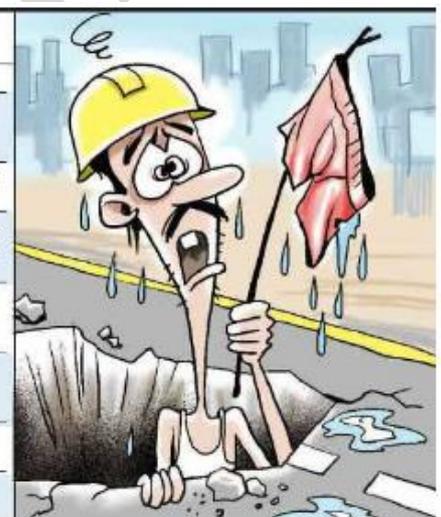
WHO'S IN CHARGE?

- It's a **complex web at the ULB level** that hinders an enabling environment to access funds in India's debt market
- Multiple authorities have **overlapping jurisdictions**, both at city and state-level
- 'Urban Development' is a **'state subject'**
- This led to problem of **'moral hazard'** in municipal debt market where most of regulatory responsibility lies with municipal borrowers
- The borrower-lender interface with states but most of the **responsibility affecting lenders** with the Government of India
- In the event of municipal insolvency or bond default, difficult to visualise who will bail out the ULB
- For access to funds and to leverage additional resources, **municipalities need to become creditworthy**
- In all 22 munis have been floated in the market so far. The total amount of capital raised is a **paltry Rs 1,200 cr** (Vaidya, 2009)

- It **can also be a source of inequalities** because the better rated municipal corporations would corner most of the investment, crowding out the investment for the already infrastructurally backward cities.

Way forward

- Best practices like
  - The Development Bank of South Africa using its balance sheet to support municipal bond issues
  - Denmark having an agency to protect bond-holders in case one city in the pool defaults
  - Japan Finance Corp. for Municipal Finance having a sovereign guarantee etc. should be followed by India.
- Municipal bonds should be seen as only one part of city finances. Cities need to generate more revenue as well as get more untied funds from the money collected through the new GST. For all this, city administrations need to be empowered.

2. INTERNATIONAL/INDIA AND WORLD

2.1. INDIA-PAKISTAN

Why in news?

The International Court of Justice (ICJ) stayed the execution of Kulbhushan Jadhav, who was sentenced to death by a Pakistan military court on the charge of spying, till its final decision.

- The Court said that India should have been granted consular access to Kulbhushan Jadhav as per the Vienna Convention.
- Pakistan should now inform the court about the steps it takes to implement the order.
- The ICJ judges are clear that these provisional measures are binding and create international legal obligations for the country to which they are addressed.

Background of Kulbushan Jadhav's case

Kulbushan Jadhav was allegedly arrested in the Chaman area of Balochistan on the Pakistan-Afghanistan border on March 3, 2016.

- India denied that he had any links to its government but said that he was running a business in the Iranian port city of Chabahar after a "premature retirement" from the Navy.
- India believed that Kulbhushan Jadhav was kidnapped from Iran and his subsequent presence in Pakistan has never been explained credibly.
- Kulbhushan Jadhav was **sentenced to death** in a **Field General Court Martial on April 10, 2017** after three-and-a-half months of trial after he was found guilty on charges of espionage.

India Approach to the International Court of Justice (ICJ)

- India had dragged Pakistan to **the International Court of Justice (ICJ)** on May 8, 2017 for refusing consular access to Jadhav and for **violating the Vienna Convention on consular relations**.
- India accused Pakistan of violating the Vienna Convention and conducting a "farcical trial" for convicting Jadhav without a "shred of evidence".

India's argument at ICJ:

Following are the main arguments made by India in the Kulbhushan Jadhav case at the International Court of Justice on May 15, 2017.

- Kulbhushan Jadhav has not got the right to get proper legal assistance and the right to consular access.
- The execution of the death sentence cannot be done while this court is hearing the appeal. Else, it will be a violation of the **Vienna Convention**.
- Jadhav was kidnapped from Iran where he was involved in business activities after retiring from the Indian Navy.

Pakistan's argument at the ICJ

At the May 15 hearing convened by the International Court of Justice (ICJ), Pakistan identified three problems with India's request and called for its dismissal.

- There is no **"urgency"** in this case as the date on which Jadhav will be executed has not yet been fixed;
- The ultimate relief sought by India, that is, a "reversal" of Jadhav's conviction, is unavailable; and
- The court **lacks jurisdiction**.
- Also, Pakistan argued that Vienna Convention provisions not intended to apply to a 'spy' involved in terror activities.

Analysis

India has achieved its immediate objective in approaching the ICJ, which has outlined provisional measures that enjoin Pakistan to take all steps needed to ensure that Mr. Jadhav is not executed pending adjudication of the matter.

- It may appear to be a complete victory for India on the questions of **jurisdiction, urgency and the core charge that Pakistan violated the Vienna Convention.** However, this is a preliminary ruling and all issues are open for adjudication at the final stage.

- As an immediate consequence, Pakistan is now under an obligation to grant consular access to Mr. Jadhav.
- India will have to leverage the moral and diplomatic advantage it has obtained through this ruling to help Mr. Jadhav prove his innocence before a civilian court and win his freedom.

Feature	International Court of Justice (ICJ)	International Criminal Court (ICC)
Year Court Established	1946	2002
UN-Relationship	Official court of the U.N., commonly referred to as the "World Court."	Independent. May receive case referrals from the UN Security Council. Can initiate prosecutions without UN action or referral.
Location	Peace Palace , The Hague, The Netherlands	The Hague, The Netherlands
Jurisdiction	U.N. member-states (i.e. national governments)	Individuals
Types of Cases	(1) Contentious between parties, (2) Advisory opinions	Criminal prosecution of individuals
Subject Matter	Sovereignty, boundary disputes, maritime disputes, trade, natural resources, human rights, treaty violations, treaty interpretation, and more.	Genocide, crimes against humanity, war crimes, crimes of aggression
Authorizing Legal Mechanism	States that ratify the U.N. Charter become parties to the ICJ Statute under Article 93. Non-UN member states can also become parties to the ICJ by ratifying the ICJ Statute. Each state must provide consent to any contentious case by explicit agreement, declaration, or treaty clause.	Rome Statute (**India** has not signed the **Rome Statute)**
Appeals	None. The ICJ decision in a contentious case is binding upon the parties. If a State fails to comply with the judgment, the issue may be taken to the UN Security Council, which has the authority to review, recommend, and decide upon enforcement.	Appeals Chamber. Article 80 of the Rome Statute allows retention of an acquitted defendant pending appeal.

2.2. INDIA-PALESTINE

Why in news?

Palestinian President Mahmoud Abbas visited India recently.

Highlights of the visit

- India and Palestine signed five memorandums of understanding. List of MoUs inked during the visit of President Abbas include:
  - ✓ MoU on Visa Exemption on Diplomatic and official Passports
  - ✓ MoU on Cooperation in Youth Affairs and Sports
  - ✓ MoU on Agricultural Cooperation
  - ✓ MoU on Cooperation in Health Sector
  - ✓ MoU on Information-Technology and Electronics
- **"Political Support" to the Palestinian cause:**
  - ✓ India reaffirmed its support for a political solution to the Palestine issue.
  - ✓ Prime Minister said that India hope to see a sovereign, independent, united and viable Palestine, co-existing peacefully with Israel.
- **Peace talks between Palestine and Israel.**
  - ✓ India hopes for early resumption of talks between Palestinian and Israeli sides to move towards finding a comprehensive resolution.
- **Capacity building in Palestine**
  - ✓ India has been contributing to material & technical assistance to Palestine. India has been building a techno Park in Ramallah at the cost of $12 million.
- Both the countries also called for enhancing cultural exchanges between the two sides. India has sought Palestine's participation in the International Yoga Day to be observed next month.
- The Palestinian President also condemned terrorism in all its forms and manifestations and called for regional and international efforts to fight the menace.

Background

India and Palestine enjoy historically close and friendly ties.

- In 1947, India voted against the partition of Palestine at the United Nations General Assembly.
- India was the first Non-Arab State to recognize Palestine Liberation Organisation (PLO) as sole and legitimate representative of the Palestinian people in 1974. India was one of the first countries to recognize the State of Palestine in 1988.
- In 1996, India opened its Representative Office to the Palestine Authority in Gaza, which later was shifted to Ramallah in 2003.

2.3. INDIA-SRI LANKA

Why in news?

Prime Minister Narendra Modi visited Sri Lanka to participate in the UN Vesak Day celebrations in Colombo.

Highlights of the visit

- Prime minister said that the **themes of social justice and sustainable world peace**, chosen for the Vesak day, resonate deeply with Buddha's teachings.
- He inaugurated the Dickoya Hospital that has been built with Indian's assistance.
- He hailed the spirit of Indian-origin Tamils in Sri Lanka and announced the construction of additional 10,000 houses in upcountry areas and the extension of the emergency ambulance service.

What is Vesak?

Vesak (Sinhalese), Vesākha (Pāli), Vaisākha (Sanskrit) is the name used for the 2nd month in Sri Lankan traditional Moon calendar (Lunar calendar) which corresponds with the month of May in the Gregorian calendar (Solar calendar).

- It was on the full moon day in the month of Vesak, Prince Siddharta was born, became enlightened and attained Mahaparinibbāna.
- Vesak is associated with three important locations of Buddhist history – Lumbini in Nepal, the birth place of Prince Siddharta, Bodh Gaya (Buddha Gaya) Bihar State in India where The Buddha attained the most exalted Enlightenment under a Bodhi Tree and Kushinagar (Kusinara) in Uttar Pradesh, India where The Buddha attained Mahaparinibbāna.

United Nations International Day of Vesak

International Day of Vesak is a National holiday declared by the United Nations in 1999. The proposal was tabled by Sri Lanka.

In 2017, United Nations International Day of Vesak was hosted by Sri Lanka under the theme **"Buddhist Teachings for Social Justice and Sustainable World Peace".**

2.4. SOUTH ASIA SATELLITE

First South Asian satellite (GSAT-9), funded entirely by India, has been launched recently by ISRO. With this, India has placed itself uniquely in space diplomacy by giving a boost to neighborhood first policy.

Importance of space diplomacy for India

- **Peaceful and prosperous neighborhood** – This launch has given strong signal about India's neighborhood policy paving the way for sustained collaboration.
- **Space revenue** – There is lot of scope for space revenue for India due to its launch capabilities as well as many countries including Indonesia, Kazakhstan etc. seek to cooperate with India's ISRO in space matters.

About South Asia satellite

- It is 2,230kg geosynchronous communications and meteorology satellite, launched as a gift for South Asian countries.
- Its benefits include mapping natural resources, telemedicine, IT connectivity, DTH connectivity, more predictable weather forecasting and quick response to natural disasters.
- All the SAARC countries excluding Pakistan are part of this project. Thus it is named as South Asia Satellite and not "Saarc Satellite"
- Other important points:
  - first Indian satellite to use an electric propulsion
  - 4th consecutive success of GSLV cryogenic upper stage indicating better future capability.

- **Reducing rising Chinese influence in space** – China has been using space as a potent tool for diplomacy through establishment of Asia-Pacific space cooperation by China along with Pakistan, Bangladesh and other countries, setting up space academy in Sri Lanka etc.
- **Keeping pace in global space race** – With more than 60 countries trying their hands in space missions, majority of countries being Asian, India has rightly seen collaboration in space as one of the major determinants of foreign policy in future
- **Cooperation for social problems** – India has emerged as a leader in societal applications of space technology and thus we can cooperate in the area of capacity building of other countries on integrating space to solve problems of land, water, forests, crop etc.

2.5. UN-HABITAT

Why in news?

India has been unanimously elected as the president of the UN-Habitat, an organ of the United Nations promoting sustainable human settlements across the globe.

- On behalf of India, Housing and Urban Poverty Alleviation Minister will preside over the deliberations of the 58-member Governing Council (GC) of the UN-Habitat for the next two years.
- Since the UN-Habitat came into being in 1978, it is the third time that India has been elected to lead this organisation after 2007 and 1988.

About UN Habitat

The United Nations Human Settlements Programme (UN–Habitat) is the United Nations agency for human settlements and sustainable urban development.

- It was established in 1978 as an outcome of the First UN Conference on Human Settlements and Sustainable Urban Development (Habitat I) held in Vancouver, Canada in 1976.
- UN-Habitat maintains its headquarters at the United Nations Office **at Nairobi, Kenya.**
- It is mandated by the United Nations General Assembly to promote socially and environmentally sustainable towns and cities with the goal of providing adequate shelter for all.
- It is a member of the United Nations Development Group.
- The mandate of UN-Habitat derives from the Habitat Agenda, adopted by the United Nations Conference on Human Settlements (Habitat II) in Istanbul, Turkey, in 1996.

2.6. ONE BELT ONE ROAD (OBOR) SUMMIT

China organized a grand two-day OBOR summit to showcase its plans to build a network of trade routes-One Belt, One Road (OBOR)-that will connect Asia, Africa, the Middle East and Europe.

- The One Belt, One Road or the Belt and Road Initiative (BRI) forum in Beijing was attended by 29 heads of state or government and by official delegations from some 100 countries.
- All of India's neighbours, except Bhutan, sent high-level delegations for the summit.
- China has positioned the One Belt One Road (OBOR) as a project of immense economic sense to the world and a 'project of the century'.

India's objection to OBOR

India has stayed away from the Belt and Road Initiative (BRI) summit, making its concerns public.

- One, the B&RI's flagship project is the China-Pakistan Economic Corridor, which includes projects in the Gilgit-Baltistan region, ignoring India's "sovereignty and territorial integrity".
- India claims that China has not only been insensitive to its sovereignty, but has never fully explained its plan for the Belt and Road (formerly called One Belt One Road) initiative. There is a lack of transparency in China's agenda, indicating that New Delhi believes the B&RI is not just an economic project but one that China is promoting for political control.
- Two, the B&RI infrastructure project structure smacks of Chinese neo-colonialism. The projects could push smaller countries on the road into a crushing debt cycle, destroy the ecology and disrupt local communities.

Analysis

India's decision to skip the meeting came after a year of bilateral discord over China's stubborn opposition to India's entry into the NSG and a UN ban against Pakistan-based terrorist group Jaish-e-Muhammad leader Masood Azhar.

- The decision to not attend even as an observer, however, effectively closes the door for diplomacy. It stands in contrast to countries such as the U.S. and Japan, which are not a part of the B&RI but sent official delegations.
- There have been arguments within India that, by boycotting the Beijing meet, India was denying itself unending benefits of something as big as OBOR.
- India may also face some difficult choices in the road ahead, because as a co-founder of the **Asian Infrastructure Investment Bank** and as a member of the **Shanghai Cooperation Organisation (from June 2017)** it will be asked to support many of the projects under the B&RI.
- Given the **endorsement from the UN Secretary General**, who said the B&RI is rooted in a shared vision for global development, India should not simply sit out the project.

Way forward

India must actively engage with China to have its particular grievances addressed, articulate its concerns to other partner countries in a more productive manner, and take a position as an Asian leader, not an outlier in the quest for more connectivity.

2.7. RECENT MILITARY EXERCISES

- **SIMBEX** - It is an annual bilateral naval exercise conducted by the Indian Navy and the Republic of Singapore Navy (RSN). India and Singapore conducted **Singapore India Maritime Bilateral Exercise (SIMBEX) in the contentious South China Sea.**
- **CORPAT -** The Indonesian Navy and the Indian Navy have been participating in coordinated patrol (CORPAT) twice a year since 2002 to keep this vital part of the Indian Ocean Region safe and secure for commercial shipping and international trade. The 29th series of India–Indonesia CORPAT has begun at Port Blair under the aegis of Andaman and Nicobar Command.

3. ECONOMY

3.1. COMMERCIALISATION OF GM MUSTARD

Why in news?

- Genetic Engineering Appraisal Committee (GEAC) gave a positive recommendation for the commercial use of GM mustard for 4 years subject to certain field conditions.

Background

- India, so far, has permitted only GM cotton, a non-food crop. NITI Aayog recently, in its three-year draft action plan had backed GM food crops also.
- India spends about $12 billion on imported edible oil which is bound to increase with the increase in population and per capita income.

> **About GEAC**
> - It is a statutory body under MoEFCC.
> - It is the apex body for approval of proposals relating to release of genetically engineered organisms and products into the environment.
> - The GEAC considers proposals for trial only after approval from the RCGM (Review Committee on Genetic Manipulation - a body comprising scientists) under Dept. of Biotechnology.

- In 2010, the GEAC had also approved the commercialization of Bt brinjal. However, the then environment minister declined to sign off on the proposal due to strong protests. As of now, there is a case pending before the Supreme Court.

Arguments in favour of GM mustard

- **Superior crops** - they generate better yields and are resistant to pests and diseases. They are needed in future to address threats from climate change.
- **Biotechnology advancement** - GM crops is central to push for investment and growth in the biotechnology sector.
- **Swadeshi GM** - GM mustard, unlike Monsanto's Bt cotton, has been indigenously developed in the public sector by Delhi University-based Centre for Genetic Manipulation of Crop Plants.
- **GM oil imported -** India imports thousands of tons of GM edible oil (and other GM food items) every year with no evidence of health effects or deaths due to genetic alterations.

Arguments against GM mustard

Sarson Satyagraha, a broad platform of hundreds of organisations representing farmers, consumers, scientists and others, and other such organizations have raised following concerns:

- **Risks involved** - GEAC has shown unscientific attitude with regard to citizens' health and environment and have failed in their very mandate to protect citizens from risks of GMOs and no knowledge of whether GEAC consists of any agricultural experts and representative of farmers
- **Impact on food chain** - Use of GM mustard will increase chemicals in our food and farms.
- **Loss in employment** - Even 25% adoption of GM mustard will lead to loss of more than 4 crore employment days by poor women in mustard growing areas
- **Lack of transparency** - There is still opacity, i.e., there is no public data on effects of GM on human health, food chain, allied sectors (beekeepers, orchards and ayurvedic medicine makers and practitioners) etc.
- **No indigenization** - It is not "Swadeshi GM" as the genes used are the property of multinationals, which want to have control on seeds.
- **Monopoly and yield loss** - It would cause yield losses for farmers will be forced to buy seeds every season than using farm-saved seeds, affecting their sovereignty, crop diversity and profitability.

Way forward

- **Consultation with state governments** on the issue given that agriculture is a state subject.
- **Grievance redressal of all stakeholders** - all the grievances of farmers and the public must be resolved before allowing GM mustard by putting the safety documents online and addressing the concerns in all comments received.

- **Legal measure** - There should be a liability clause, that is, if something goes wrong the liability should be fixed statutorily like in case of US law, liability is huge in case the GM tech effects the regular varieties of crops. It will ensure that case of non-accountability, in case of pink bollworm pest attack on BT cotton, does not repeat itself in case of other GM crops.

3.2. COIR INDUSTRY

Why in News?

- A severe shortage of water, affecting coconut farms in Tamil Nadu, Kerala and Karnataka has decreased the yield of the coir industry in these parts.

Background

- India accounts for about 66% of the global production of coir and coir products.
- **Kerala** accounts for majority of coir industry in India. The geographical location of the coir industry is dependent on the availability of raw material (Coconut) available in states like Karnataka, Kerala, Tamil Nadu, Andhra Pradesh and Odisha.

Basic facts on coir industry

- Coir is a fibrous mass extracted out from the coconut husk.
- It is an important cottage industry.
- Coir Industry in India consists of two distinct segments namely –
  - **White fibre** - It is smother and finer but weaker. It is obtained from immature green coconuts. It is used primarily for rope manufacture.
  - **Brown fibre** – It is obtained by harvesting fully mature brown coconuts. It is stronger and thus used to make objects like brushes, mats etc.
- Coir exports in 2015-16 amounted to about Rs 1900 crore.
- Main export destination of India is USA.
- This industry directly employs about 7 lakh people that are mostly from the rural areas. Women constitute about 70% of the workforce.

Government initiatives

- **Coir Udyami Yojana-** Rejuvenation, Modernization and Technology Upgradation has been renamed as Coir Udyami Yojana.
  - This is a **credited linked subsidy scheme** which provides 40% as Govt. subsidy, 55% as Bank loan and 5% beneficiary contribution for setting up of coir units with project cost up to Rs.10 lakh
  - No collateral security/third party guarantee is required and there is no income ceiling.
  - Assistance is available to individuals, companies, self help groups, NGOs, institutions registered under Societies Registration Act, 1860, co-operative societies, joint liability groups and charitable trusts.
- **Coir Vikas Yojana -**
  - It involves skill upgradation and quality improvement of the products.
  - It also **includes Mahila Coir Yojana** – training for men & women coir workers and providing subsidized ratts to women workers.
  - Its other components are development of production infrastructure, domestic market promotion, export market promotion etc.

Coir Board

- It is a statutory body developed under Coir Industry Act 1953.
- It regulates the production and distribution of coir through registration and licensing.
- It also fixes standards for this industry.
- It is an advisory body to the government for production of coir products.
- It functions under the Ministry of MSME.

Significance of coir industry

- With **increasing awareness of environment-friendly products**, the demand for coir-based items is on the rise in the international and domestic markets.
- **Rise of e-commerce** have led to an increased demand and marketing of mats and mattresses made of coir.

Challenges

- Climate Change and shortages of monsoonal rains can affect the yields of coir industry.
- There is a competition from countries like Indonesia, Vietnam and Sri Lanka that can affect the profit margins of the Indian coir industry.
- Problems of raw materials include poor quality of raw materials and high cost of materials.
- Labour problems include labour absenteeism, low wages, low skills, low labour productivity.
- Other challenges include non-availability of financial credit, problems in marketing of finished goods etc.

3.3. PUSA KRISHI APP

Why in News?

* This app was recently inaugurated in the Krishi Unnati Mela.

About the app

* It has been developed by ICAR's Indian Agricultural Research Institute.
* The Pusa Krishi app gives information about –
  * The varieties of products available to farmers
  * Technology that can be used to yield better crops
  * Information about produce and the region it is best suited for c
  * Information about animal feed and bio-fertilizers
* There is a feedback section which enables the agricultural scientists to have a real time conversation with the stakeholders.

Krishi Unnati Mela

* It is an annual event conducted by Indian Agricultural Research Institute, Delhi.
* It shares information about new techniques in agriculture and animal husbandry and important central government schemes and programs.

Institutions related to agricultural extension

1. **National Centre for Management of Agricultural Extension (MANAGE) (1987)** –
   ✓ It is an autonomous institute under Ministry of Agriculture.
   ✓ It is located in Hyderabad.
   ✓ It assists the Central and State Governments and other organizations in effective management of their agricultural extension.
2. **Indian Council of Agricultural Research (ICAR)**
   ✓ It is an autonomous body under Ministry of Agriculture.
   ✓ Its head is Minister of Agriculture.
   ✓ It coordinates agricultural education and research in India.

3.4. NATIONAL POLICY ON MARINE FISHERIES 2017

Why in News?

* National Policy on Marine Fisheries was launched recently by the Department of Animal Husbandry, Dairying and Fisheries.

Background

* India is the second largest producer of fish in the world contributing to 5.43% of global fish production.
* India is also a major producer of fish through aquaculture and ranks second in the world after China.
* After Independence, **fish production has been increased from 7.5 lakh tonnes in 1950-51 to 100.70 lakh tonnes during 2014-15.**

Branches of fisheries

1. **Marine Fisheries –** It is that branch of fisheries which deals primarily with marine fishes and other sea products.
   ✓ E.g. Oil sardines, mackerels, Bombay ducks, tunas and the prawns, catfishes, polynomids , pomfrets, crabs, oysters, marine algae
2. **Inland fisheries** - Inland fisheries **include both fresh water and brackish water fisheries**. The commercially important fresh water fisher y resources are carps, mullets, chanos, and prawns. Some brackish water fisheries include shrimps.

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* Marine Fisheries is the fastest growing food producing sector in the world with a great potential to meet the food, especially protein requirement of a large number of population.
* After 2015 report of B.Meenakumari on deep sea fishing, the government had decided to revise the existing Marine Fisheries policy of 2004.

About the Policy

* The **aim of the policy** is to ensure the health and ecological integrity of the marine living resources of India's EEZ through sustainable harvests.
* The **overall strategy would be based on seven pillars**, namely sustainable development, socio-economic upliftment of fishers, principle of subsidiarity, partnership, inter-generational equity, gender justice and precautionary approach.
* The policy would be in line with the **FAO's Code of Conduct for Responsible Fisheries** on conservation, development and management of fisheries.
* **Some of the provisions of the policy are -**

- o **Monitoring, Control and surveillance** (to prevent accidents and trespassing)
    - ✓ For better monitoring and surveillance, chip-based smart registration cards for fishermen and their fishing vessels would be introduced.
    - ✓ Training and awareness would be given to fishermen to avoid crossing the International marine boundary line (IMBL).
- o **Integrated approach on fisheries management** –
    - ✓ **Species-specific and area-specific** management plans with **spatial and temporal measures** for sustainable utilization of resources.
    - ✓ Consevation of Ecologically and Biologically Significant Areas (EBSAs) and Vulnerable Marine Ecosystems (VMEs), endangered species etc.
    - ✓ It would **blend traditional knowledge and scientific business principles**.
    - ✓ Use of Information technology and space technology for improving the capacities of the fishing community. Eg. Using these to forecast weather
    - ✓ **Traditional Use Rights for Fisheries** (areas where mechanized fishing is prohibited and small scale fishers are allowed) would be continued.
    - ✓ Government would also introduce schemes to skill traditional fishers.
- o **Commercializing Fisheries** –
    - ✓ **Fisheries Data and Research -** Government would implement a **National Marine Fisheries Data Acquisition Plan** with all stakeholders.
    - ✓ **Mariculture -** Government will encourage schemes to set up mariculture farms/parks and setting up of hatcheries for supply of seed for development of the sector. There would also be a focus on preventing post-harvest losses.
    - ✓ **Island Fisheries –** India's islands would be exploited for the lucrative and commercial value fisheries like Tuna, snapper, groupers etc. Krill fishing would also be promoted in Areas Beyond National Jurisdiction (ABNJ).
    - ✓ **Fisheries Trade –** Government would focus on diversifying trade market, harmonizing FSSAI standards with international bodies, reducing the influence of middlemen and ecolabelling of fishes.
    - ✓ Entrepreneurship development, private investment, public private partnership for marine fisheries sector will be encouraged.
    - ✓ Government with the help of NABARD will provide institutional credit to the fishers.
- o **Marine environment and Fisheries -**
    - ✓ Review and periodically evaluate existing marine protected areas (MPAs)
    - ✓ It would provide **legislative support to ensure tenure rights of traditional fishermen** so that their livelihood is not affected by conservation measures.

Significance

- Monitoring and surveillance will ensure that Indian fishing fleet do not engage in **'Illegal, Unreported and Unregulated' (IUU) fishing.**
- **Women SHGs** would be promoted in the women dominated post harvest sector of fisheries.
- The policy if well implemented would **promote SDG Goal 14** of conserving and sustainably using Oceans, Seas and Marine resources for Sustainable development.
- It would also help in **boosting the primary sector** of our economy and improve its growth rate.

> **B Meenakumari Committee on deep sea fishing**
>
> - Allow fishing in the EEZ - between 22 km and 370 km beyond territorial waters – for vessels with a length of 15 metres or more by getting a "letter of permission" from the Centre.
> - These ships can be owned or acquired by Indian entrepreneurs or by joint ventures with up to 49 per cent foreign investment.
> - **Create a buffer zone between the near-shore and offshore regions** (waters between 200 m and 500 m in depth) along the coast and regulate fishing there "in order to augment resources in the near-shore areas as well as the deep-sea regions in the EEZ".

Challenges

- The policy recommends rescinding Letter of Permit scheme thus allowing private investments in deep sea fishing (as recommended by B. Meenakumari committee). This may threaten the small scale and traditional fishers community.
- Some State recommendations like a separate Ministry of Fisheries, extending the territorial limit of States etc. have not been taken up in the policy.

Way forward

- Recently the government has formulated an umbrella scheme **'Blue Revolution: Integrated Development and Management of Fisheries'** by merging all the existing schemes. This umbrella scheme will cover inland fisheries, aquaculture and marine fisheries including deep sea fishing, mari-culture and all activities undertaken by the National Fisheries Development Board (NFDB).
- The government should make this policy in tandem with the scheme to promote Blue revolution in the country.

3.5. SAMPADA SCHEME

Why in News?

- The government has given its approval for re-structuring the schemes of the Ministry of Food Processing Industries (MoFPI) under **new Central Sector Scheme – SAMPADA (Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters)** for the period 2016-20.

Need

- India ranks number one in total food production globally. Despite the large production of food products in India, post harvest losses are of major concern.
- India has a less than 10% processing level of the large production base.
- A well -developed Food Processing Industry helps in the reduction of wastage, improving value addition, promoting crop diversification, better return to farmers, promoting employment as well as increasing export earnings.

Background

- During 2015-16, the food processing sector constituted as much as 9.1 and 8.6 per cent of GVA in Manufacturing and Agriculture sector respectively.
- The government has allowed **100% FDI (automatic route) in trading including through e-commerce**, in respect of food products manufactured and/or produced in India.
- The government has set up a **Special Fund of Rs. 2000 crores** in NABARD to give affordable credit at concessional rate of interest to designated food parks and agro processing units.
- Food and agro–based processing units and cold chain infrastructure have been brought under the ambit of Priority Sector Lending (PSL).

Draft National Food Processing Policy 2017

- It advocates adoption of **sustainable environmental practices** like energy generation from bio waste
- For Quality, health and safety of products, the policy suggests compliance with FSSAI Act 2006 and **introduces self-regulation.**
- **Administrative issues** –
  - Each state should set up an **independent Department** to handle all matters related to food processing.
  - States should **create an e-platform**, to facilitate all necessary clearances in a time bound manner.
- **Infrastructure Development** –
  - The policy recommends following a cluster approach to tap the benefits of economies of scale in food processing.
  - States should register in the eNAM platform to promote direct procurement of all raw materials, especially horticulture produce.
  - Ceiling on Land Lease act should be raised or abolished to encourage entrepreneurs procure lands for bigger units.
  - Land should be allotted on priority to Mega food parks.
  - Technology adoption like barcoding, RFID tags etc. should be supported.
- It also **aims to promote entrepreneurship** in this sector by reforming labour laws, promoting incubation centres, setup skilling centres in each state etc.

Provisions

- The **objective of the scheme** is to supplement agriculture, modernize processing and decrease agri-waste.
- **It is an umbrella scheme** incorporating ongoing schemes of the Ministry of Food Processing -
  - Earlier schemes like Mega Food Parks, Integrated Cold Chain and Value Addition Infrastructure, Food Safety and Quality Assurance Infrastructure, etc.
  - New schemes like Infrastructure for Agro-processing Clusters, Creation of Backward and Forward Linkages, Creation of Food Processing & Preservation Capacities.

Significance

- Convergence of various schemes would help in **better implementation of the programmes**.

- The scheme would also help in **reducing the post harvest losses**.
- With rise of disposable income, this scheme would help in **fulfilling the demand of processed foods** like edible oils, juices etc.
- Food industry as compared to other industries has the largest number of factories and engages the largest number of employees. This scheme would **boost the employment prospects**.
- Processed foods can also help **address the problem of malnourishment** by increased availability of nutritionally balanced food.

> **Other Schemes of Food processing Industry**
> - **Mega Food Park Scheme**
>   - It aims to provide modern infrastructure facilities for the food processing with a cluster based approach based on a hub and spokes model.
>   - It includes creation of infrastructure for primary processing and storage near the farm in the form of Primary Processing Centres (PPCs) and Collection Centres (CCs) and common facilities and enabling infrastructure like roads, electricity, water etc. at Central Processing Centre (CPC).
> - **Integrated Cold Chain and Value Addition Infrastructure**
>   - It is a Central Sector scheme.
>   - Financial assistance is given in the form of grant-in-aid upto maximum of Rs. 10 crore per project.

3.6. MASALA BONDS

Why in news?

- The Union Minister of Road Transport & Highways and Shipping launched the **NHAI Masala Bond (National Highways Authority of India)** issue at the **London Stock Exchange.**

What are masala bonds?

- **Masala bonds are rupee-denominated bonds** issued by **Indian entities in the overaseas market** to raise funds.
- As of now, it is being traded only at the London Stock exchange.
- Masala bonds have been named so by the **International Finance Corporation (IFC)**, an **investment arm of the World Bank** which issued these bonds to raise money for infrastructure projects in India.
- They protect investors from exchange rate fluctuations as opposed to external commercial borrowing (ECB) that have to be raised and repaid in dollar.

3.7. WPI AND IIP BASE YEAR CHANGE

Why in news?

- The **CSO** and the **Department of Industrial Policy and Promotion (DIPP)** has shifted to 2011-12 base year from 2004-05 base year for Index of Industrial Production (IIP) and Wholesale Price Index (WPI) respectively.
- Inflation rate based on the new series of WPI declined to a four-month low of 3.85 per cent in April from 5.70 per cent in March, IIP grew 2.7 per cent in March as against 1.9 per cent a month ago.

Background

- Various macroeconomic indicators measures such as WPI, CPI, IIP, GDP and national accounts measure the health of the economy.
- WPI is primarily used as an indicator to measure inflation. RBI has recently moved to using CPI as a measure of inflation for formulating monetary policy.
- WPI is used as a **deflato**r for many sectors such as for estimating GDP by CSO as well as for calculating IIP.
- WPI and IIP have been revised in line with the recommendations of the **Saumitra Chaudhari Committee** which submitted its report in March 2014.
- A **Technical Review Committee (TRC)** has been constituted for the first time by the CSO in order to review the indexes and recommend appropriate methodological interventions in line with changing economic structure of the country. The TRC is to be chaired by Secretary, DIPP. It shall meet once a year.

What is new?

- Apart from the WPI base year, its basket of goods and their weightage have also been overhauled. 199 new items have been added and 146 items have been dropped in line with the changing demand in the country.

- **Taxes have been left out of WPI** in order to remove the impact of fiscal policy.
- The WPI will now be calculated based geometric mean rather than the earlier of arithmetic mean. CPI is calculated on geometric mean.
- 149 items have been added to the IIP and 124 deleted.

Implications

- The change in base year has brought all macroeconomic indicators on the same base making comparison easier. The new base year will provide a more realistic picture.

Changes in composition

IIP old series (Base year: 2004-05)			New series (Base year: 2011-12)		
	Item groups	Weight (%)		Item groups	Weight (%)
Mining	1	14.16		1	14.37
Manufacturing	397	75.53		405	77.63
Electricity	1	10.31		1	8
Total	399	100		407	100

WPI old series (Base year: 2004-05)			New series (Base year: 2011-12)		
Primary articles	102	20.12		117	22.62
Fuel and power	19	14.91		16	13.15
Manufactured items	555	64.97		564	64.23
Total	676	100		697	100

- Change in WPI basket of goods and weightage has brought it **closer to the CPI** and to changing consumption pattern in the country.
- Removing indirect taxes from WPI will make it a **compatible and appropriate deflator**. It will also bring it closer to **PPI (Production Price Index) and global practices**.
- This is how GVA is calculated (without the taxes) therefore making it **consistent with GVA.**
- Change in the IIP basket would **make it closer to the current production structure**.
- Establishment of TRC will help review the indices on time and make the required changes without delay.

3.8. VOLUNTARY UNEMPLOYMENT

Why in News?

- Recently, NITI Aayog member Bibek Debroy has flagged a **dramatic rise of voluntary unemployment** across the country.

Voluntary Employment

- **NSSO defines following three broad Activity Status** -
  - Working/Employed (engaged in an economic activity)
  - Seeking or available for work i.e. 'Unemployed'
  - Neither seeking nor available for work.

Activity Status

- Activity Status refers to the activity situation in which the individual is found during the reference period with respect to his participation in economic or non-economic activities.

  Labor force/work force is the total number of people employed or seeking employment in a country or region.
- **One is classified as voluntary unemployed**, if he or she is not employed and is not willing to join the workforce. It is mostly because **people choose not to work below a certain income level after 'investing' in education**.

Way forward

- This is an alarming situation because India's demographic dividend is wasted if voluntary unemployment rises to high levels. The levels are rising because the growth of high skilled jobs is disproportionate to the number of job seekers in this section.
- Mostly, the voluntary unemployment is because of the unavailability of job due to inadequate nature of work or inadequate salary. Therefore, the government should create a diversity of jobs for utilizing these voluntary unemployed.

3.9. TECHNOLOGY AND INNOVATION SUPPORT CENTRES TO COME UP

Why in news?

- The **Department of Industrial Policy and Promotion (DIPP)** and **World Intellectual Property Organisation (WIPO)** have joined hands to set up **Technology and Innovation Support Centres (TISC).**

What is it?

- **TISC** programme provides innovators in developing countries access to locally based, high quality technology information and related services, helping them exploit their innovative potential and to create, protect, and manage their intellectual property (IP) rights.
- The **Cell for IPR Promotion and Management (CIPAM),** under the Ministry of Commerce & Industry, has been designated as the national focal point for the TISC network.
- It shall identify potential host institutions, assess their capacities and support them in joining the TISC project.

WIPO
- WIPO is the **global forum for intellectual property services, policy, information and cooperation.**
- It a specialized a self-funding agency of the **United Nations**, with 189 member states.
- It was established in 1967 and is headquartered in Geneva, Switzerland.

CIPAM
- CIPAM is a professional body created under **DIPP (Department of Industrial Policy and Promotion).**
- It has been entrusted with the implementation of the **National IPR Policy 2016.**
- It aims to spread awareness about **IPR (Intellectual Property Rights),** promoting the filing of IPRs through facilitation, providing inventors with a platform to commercialize their IP assets.

3.10. INDIGENOUS NUCLEAR POWER

Why in news?

- Cabinet has recently cleared the proposal to construct 10 indigenous pressurised heavy water nuclear reactors (PHWR) with each having a capacity of 7,00 MWe, to be built by Nuclear Power Corporation of India Ltd (NPCIL). They will more than double the country's current installed nuclear capacity of 6,780 MWe.

About NPCIL
- It is a Public Sector Enterprise under the **Department of Atomic Energy**
- It is registered as a **Public Limited Company** under the Companies Act
- Its main objectives are operating atomic power plants and implementing atomic power projects for generation of electricity
- It also has **equity participation in BHAVINI,** another PSU of Department of Atomic Energy (DAE) which implements Fast Breeder Reactors programme.

Significance of the decision

- **Doubling nuclear capacity** - These plants will more than double the country's current installed nuclear capacity
- **Domestic nuclear capacity building** – The move shows strong belief in the capability of Indian scientists to build our technological capacities which will help India to come at the forefront of global nuclear supply and manufacturing chain in future
- **Increase in employment** – These plants would create Rs. 70,000 crore worth of business for domestic manufacturers (especially in equipment manufacturing industry) and generate about 33,400 jobs.
- **Reducing dependency** – India is facing troubles in international collaborations such as bankruptcy filed by US company Westinghouse and cost issues with French company Ariva.
- **INDC commitments** – It not only ensures the nation's energy security, but also meet India's clean energy commitments for carbon-free sources of power under Paris deal.

Associated Concerns

- **Safety concerns** - The government has to adhere to strict safety standards in the design, building and operations of the proposed reactors.
- **Regulatory issues** – Independent body should regulate public sector nuclear power plants to avoid conflict of interest in having Atomic Energy Regulatory Board, a government body, overseeing them.
- **Time and cost overruns** – It has been the norm in the setting up of nuclear power plants so far. This needs to be changed to ensure operationalization of new plants within a time frame.
- **International aversion to nuclear power** - India's nuclear quest runs contrary to the global pushback against nuclear power.

Current status of India's nuclear capacity

- NPCIL is presently operating 22 commercial nuclear power reactors (details shown in the figure)
- The total installed capacity in India is 6780 MWe, constituting 2.1% of the total installed capacity in India.
- The reactor fleet comprises of three types of reactor
  - PHWR
  - Boiling water reactor (BWR)
  - VVER (Pressurized water reactor type)
- India today has civil nuclear cooperation agreements with several countries, including France, Russia, UK, US and Japan.

Comparison of different types of reactor

The different types of reactor have been compared in the following table:

Plant	Unit	Type	Capacity (MWe)
Tarapur Atomic Power Station (TAPS), Maharashtra	1	BWR	160
Tarapur Atomic Power Station (TAPS), Maharashtra	2	BWR	160
Tarapur Atomic Power Station (TAPS), Maharashtra	3	PHWR	540
Tarapur Atomic Power Station (TAPS), Maharashtra	4	PHWR	540
Rajasthan Atomic Power Station (RAPS), Rajasthan	1	PHWR	100
Rajasthan Atomic Power Station (RAPS), Rajasthan	2	PHWR	200
Rajasthan Atomic Power Station (RAPS), Rajasthan	3	PHWR	220
Rajasthan Atomic Power Station (RAPS), Rajasthan	4	PHWR	220
Rajasthan Atomic Power Station (RAPS), Rajasthan	5	PHWR	220
Rajasthan Atomic Power Station (RAPS), Rajasthan	6	PHWR	220
Madras Atomic Power Station (MAPS), Tamilnadu	1	PHWR	220
Madras Atomic Power Station (MAPS), Tamilnadu	2	PHWR	220
Kaiga Generating Station (KGS), Karnataka	1	PHWR	220
Kaiga Generating Station (KGS), Karnataka	2	PHWR	220
Kaiga Generating Station (KGS), Karnataka	3	PHWR	220
Kaiga Generating Station (KGS), Karnataka	4	PHWR	220
Kudankulam Nuclear Power Station (KKNPS), Tamilnadu	1	VVER -1000 (PWR)	1000
Kudankulam Nuclear Power Station (KKNPS), Tamilnadu	2	VVER -1000 (PWR)	1000
Narora Atomic Power Station (NAPS), Uttarpradesh	1	PHWR	220
Narora Atomic Power Station (NAPS), Uttarpradesh	2	PHWR	220
Kakrapar Atomic Power Station (KAPS), Gujarat	1	PHWR	220
Kakrapar Atomic Power Station (KAPS), Gujarat	2	PHWR	220

Total Nuclear Power Plant Capacity : 6780 MWe

	BWR	PWR	PHWR	FBR
Purpose	electricity	Electricity, nuclear powered ships	Electricity, plutonium production	Electricity, plutonium production
Coolant	water	water	Heavy water (D_2O)	Molten, liquid sodium
Moderator	water	water	Heavy water (D_2O)	Not required
Fuel	Uranium dioxide	Uranium dioxide (UO2)	UO2 or metal	Plutonium dioxide and UO2 in different combinations
Enrichment level	Low-enriched	Low-enriched	Not-enriched	Various mixtures of P-239 and U-235

Why India chose PHWRs?

- Availability of fuel - guaranteed as India has put most it's PHWRs under IAEA safeguards.
- No need of establishing expensive enrichment facility as it uses natural uranium as fuel.
- Availability of indigenous technology, expertise and resources.
- More energy efficient than comparable Light Water Reactor.

3.11. PHASED MANUFACTURING PROGRAMME

Why in News?

- Government has recently notified Phased Manufacturing Programme (PMP) for promoting the growth of domestic manufacturing of Cellular mobile handsets.

Provisions

- This would be a programme under Ministry of Electronics and Information Technology **(MieTY)**.
- The **overall aim of the scheme** is to impose duties (differential duty regime) and give tax reliefs and incentives on select products involved in the manufacturing of cellular handsets.
- It is called a phased manufacturing programme because it will give **fiscal benefits to domestic manufacturing** of the various components of cellular handsets in different fiscals.
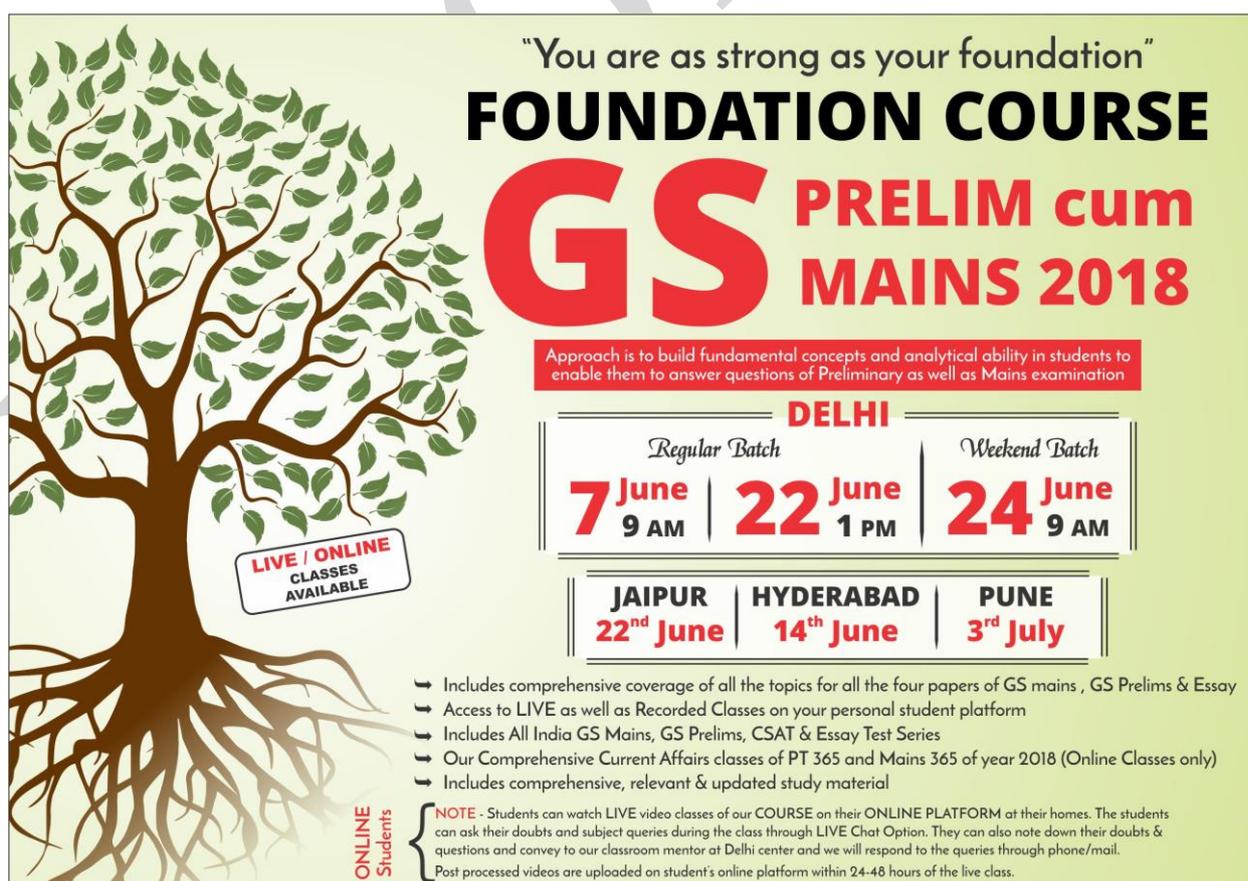
3.12. THINK20 TASK FORCE

Why in News?

- Germany recently convened the **first-ever G20 "digital ministers" meeting** and as a result a T20 task force (**Think20 Task Force**) was set up.

About T20 task force

- It comprises of think tanks and academia (**Observer Research Foundation of India** is in this force) that will offer recommendations to strengthen digital economies and manage the "digitalization" of traditional sectors.
- It would help articulate rules of economic operation for businesses, governments and users transacting on the Internet.
- It would also focus upon -The focus of the group would be on-
  o **Affordable and inclusive Cyber security**.
  o Balancing the **automation and its effects like loss of employment**

4. SECURITY

4.1. INTEGRATED THEATRE COMMAND

Why in News?

A committee appointed by the Defence Ministry, headed by Lt General D B Shekatkar (retd.) has submitted it report to MoD.

Recommendations

It recommended creating 3 integrated theatre commands:

- Northern command for the China border,
- Western command for the Pakistan border and
- Southern command for the maritime borders.

As the Northern and Western commands have land borders, Army General could head it owing to their expertise. The southern command could be headed by a Navy Admiral.

Background

- Presently, we have service-specific commands i.e. Air Force and Navy all have their own commands all over the country.
- Jointness among service commands: While the 3 Services progress and develop in their respective spheres with their independent identity, they function together and so coordinate their operations in war.
- During war: Coordination of operations is expected to be carried out at the level of Service Headquarters through the Chiefs of Staff Committee (COSC). The chairman of this COSC, is still not appointed.

- The Indian armed forces currently have 17 commands.
- There are 7 commands each of the Army [Northern, Eastern, Southern, Western, Central, South-western and Army Training Command (ARTRAC)].
- Air Force has [Western, Eastern, Southern, South-western, Central, Training and Maintenance].
- Navy has 3 commands [Western, Eastern and Southern].
- Each command is headed by a 4-star rank military officer.
- In addition, there are 2 tri-service commands [Strategic Forces Command (SFC)] and Andaman and Nicobar Command (ANC)], which is headed by rotation by officers from the 3 Services.
- ANC is an integrated theatre command.
- The other tri-service command, SFC, looks after the delivery and operational control of the country's nuclear assets. Since it has no specific geographic responsibility and a designated role, it is an integrated functional command, not a theatre command.

What is an integrated theatre command?

An integrated theatre command envisages a unified command of the three Services, under a single commander, for geographical theatres that are of security concern.

A composite and cohesive whole: Enmeshing the three Services together at different levels and placing them under one commander for execution of operational plans.

Efficacy and Efficiency against the enemy: The integrated theatre commander will not be answerable to individual Services. He will be free to train, equip and exercise his command to make it a cohesive fighting force. The logistic resources required to support his operations will also be placed at the disposal of the theatre commander so that he does not have to look for anything when operations are ongoing.

Arguments for

- Avoids duplication, economy of resources and ensures optimum utilisation of available resources.
- With a single commander, you can have all the military assets under him. This will result in combat efficiency. For example, nations like U.S and China have integrated commands. In fact, Chinese border with India has a single command,
- The COSC, during war times, functions on the principle of consensus. This makes decision-making delayed on jointness in operations can become difficult.

Arguments against

- India is not geographically large enough to be divided into different theatres, as resources from one theatre can easily be moved to another theatre.

- We have shortage of military infrastructure. For example, with only 34 out of 45 fighter squadrons present, dividing already scarce resources is infeasible.
- The US has global roles where it can't move assets from one theatre to another. India has no such problems of distance and time.
- There are fears among the smaller services that such a change would diminish their importance and the power of the service chiefs.

Way forward

Good starting point to the creation of integrated theatre commands would be the appointment of a Chief of Defence Staff or Permanent Chairman, COSC.

There has been a demand for other integrated functional commands, such as the cyber, aerospace and Special Operations commands, but the government is yet to approve any.

Creation of integrated theatre commands will require sustained political will. It must be a phased reform. There is a need for greater joint-ness among the three services, it is not appropriate to move to integrated theatre commands anytime soon.

4.2. 'SAMADHAN' DOCTRINE FOR NAXAL VIOLENCE

Why in news?

25 jawans lost their lives in the Sukma attack, the deadliest Naxal strike on the CRPF in years.

What is 'SAMADHAN'?

Operation 'SAMADHAN' is the Ministry of Home Affairs (MHA)'s answer to the Naxal problem.

The acronym SAMADHAN stands for:

- S-Smart leadership – states to "take ownership" of anti-Naxal operations and frame an "integrated strategy to deal with guerrillas"
- A-Aggressive strategy, -- More helicopter support for operations, 400 fortified police stations to be set up in Naxal belt.
- M-Motivation and training – Indian Army or specialized forces - such as Greyhounds - to train forces to take on Naxals.
- A-Actionable intelligence – Joint Task Forces for operations along inter-State boundaries to be set up. Better inter-state coordination and intelligence sharing.
- D-Dashboard Based KPIs (key performance indicators) and KRAs (key result areas),
- H-Harnessing technology –UAVs and drones for maoist hotbed areas; GPS tracking, HHTI (hand-held thermal image) devices, radar, satellite imagery, trackers in weapons.
- A-Action plan for each theatre
- N-No access to financing -- Prevention of Money Laundering Act (PMLA) to be reviewed to ensure effective choking of fund flow to LWE groups.

Way forward

- Union Home Minister referred to "Unity of purpose", "aggression in policy" and. ''choking of funds to Left extremists'' as the basic mantras to tackle naxal menace.
- Resumption of Left Wing Extremism (LWE) - specific schemes such as SRE, SIS, IAP/ACA, CIAT schools, is a sustainable solution in long term. Fast tracking building infrastructure, power distribution, mobile towers with 3G connectivity, and road-rail connectivity, is needed for maintaining law and order and create development.

4.3. BRAHMOS TESTED FROM ANDAMAN ISLANDS

Why in news?

The land-to-land configuration of BRAHMOS Block III, missile was launched from a Mobile Autonomous Launcher (MAL) for its full-range testing in the Andaman and Nicobar Islands.

Significance of Brahmos

- Brahmos is a supersonic cruise missile (speeds of Mach 2.8 to 3.0). It is the world's fastest anti-ship cruise missile in operation.
- It successfully hit the land-based target with bulls eye precision in a "top attack configuration", meeting all flight parameters in a copybook manner.
- The strike range of the missile was enhanced from 290 km to 450 km.
- It is a multi-platform, multi mission missile; capable of being launched from land, air, sea, sub-sea against surface and sea-bed targets.

> Brahmos was jointly developed by DRDO (India) and NPOM (Russia).
>
> After India became a member of the Missile Technology Control Regime (MTCR) in 2016, India and Russia are now planning to jointly develop a new generation of Brahmos missiles with 600 km-plus range. Earlier range was restricted to sub-300 kms.

4.4. STRATEGIC PARTNERSHIP MODEL

Why in news?

Cabinet cleared Strategic Partnership model for defence manufacturing.

What is strategic partnership?

- The idea is to enlist private sector defence companies in each of the segments as strategic partners for long-term contracts.
- This company then starts a Joint Venture with the foreign Original Equipment Manufacturer selected through the procurement process, to build the platform in India with significant technology transfer.
- And long term contracts will be awarded to these companies, to give them the economies of scale as defence involves large investments.

Significance

- To strengthen the private industries in the defence and defence PSUs and create domestic expertise in four key areas: fighter aircraft, helicopters, submarines, and armoured vehicles and main battle tanks.
- To enhance competition, increase efficiencies, facilitate faster and more significant absorption of technology,
- Create a tiered industrial ecosystem, ensure development of a wider skill base, trigger innovation and enable participation in global value chains as well as promote exports.
- Projects worth Rs. 50,000 crore are stuck in the absence of the SP chapter. Foreign OEMs have already made it clear that without this chapter, they are unable to form joint ventures with Indian defence firms and there has been a dearth of large-scale defence projects.

Criticism

- The SP model may block new technology and new players coming to the defence sector. This may lead to monopolization.
- Main concern for private sector is to choose only one particular segment for SP.

5. ENVIRONMENT

5.1. BUSTARD BREEDING CENTER

Why in news?

The Rajasthan government will set up a captive breeding centre for the great Indian bustard.

Background

- This will be the **first such facility** in the country aimed at saving the bird, which is the State bird of Rajasthan.
- Rajasthan accounts for 95% of the total world population of Great Indian bustard.

About Great Indian bustard

- A large bird with a horizontal body and long bare legs giving it an ostrich like appearance
- This bird is among the **heaviest of the flying birds**.
- **Found in central India, western India and eastern Pakistan**
- Habitat: Arid and semi-arid grasslands, open country with thorn scrub, tall grass interspersed with cultivation. It avoids irrigated areas.
- Listed in **Schedule I** of the Wildlife (Protection) Act, 1972 and **CMS or Bonn Convention**.
- It is also listed in Appendix I of CITES, as **Critically Endangered on the IUCN Red List**.
- It has also been identified as one of the species for the recovery programme under the **Integrated Development of Wildlife Habitats** of the Ministry of Environment and Forests.
- The biggest threat to this species is hunting. This is followed by occasional poaching outside Protected Areas, collisions with high tension electric wires, fast moving vehicles and free-ranging dogs in villages.

> **Integrated Development of Wildlife Habitats**
> It is a Centrally Sponsored Scheme where GoI provides financial and technical assistance to the State/UT Governments for activities aimed at wildlife conservation. The scheme has following three **components**:
> - **Support to Protected Areas** (National Parks, Wildlife Sanctuaries, Conservation Reserves and Community Reserves)
> - **Protection of Wildlife Outside Protected Area**
> - **Recovery programmes for saving critically endangered species and habitats.**

Convention on the Conservation of Migratory Species of Wild Animals (CMS) or Bonn convention

- It is an environmental **treaty under the aegis of the United Nations Environment Programme**
- CMS provides a global platform for **the conservation and sustainable use of migratory animals** and their habitats. Migratory species threatened with extinction are listed on Appendix I of the Convention.
- CMS brings together the States through which migratory animals pass, the Range States, and lays the legal foundation for internationally coordinated conservation measures throughout a migratory range.
- Only global convention specializing in the conservation of migratory species, their habitats and migration routes. India is a member of the convention.

5.2. INDIAN WILD DOGS (DHOLES)

Why in news?

The Indira Gandhi Zoological Park (IGZP), running a conservation breeding centre for dholes plans to reintroduce a pack of 16 into the forests.

About dholes

- Dholes occur in several regions of India such as the Western Ghats, central Indian forests, Eastern Ghats, northeastern states and Terai region in north India.
- In the Himalayan region, they are found **in Sikkim and Ladakh**
- Protected under **Schedule 2** of the Wildlife (Protection) Act, 1972
- Listed as '**endangered**' by the International Union for Conservation of Nature (IUCN)

Indira Gandhi Zoological Park

- It is one of the largest zoological parks of Andhra Pradesh situated in Visakhapatnam.
- Surrounded by Eastern Ghats on three sides, the park has the flowing Bay of Bengal on its fourth side.

5.3. BLACK NECKED CRANE

Why in news?

The cranes are facing huge threats especially in Arunachal Pradesh.

About the crane

- **Migratory bird** most commonly found in China.
- It is legally protected in Bhutan and India and is considered sacred to certain Buddhist traditions.
- **IUCN status – Vulnerable**
- Listed in India's Wildlife Act as a **Schedule 1 species**
- It is locally known as **Dhung Dhung Karma**.
- Also it is the only high altitude crane amongst the 15 species found in the world.
- These birds build their nests in vast open environments, making them vulnerable to a host of predators.

5.4. INDIAN STAR TORTOISES

Why in news?

Chinnar Wildlife Sanctuary (CWS) has successfully rehabilitated Indian star tortoises, making it the only rehabilitation centre for star tortoises in the country.

About Indian star tortoise

- This species naturally inhabits **scrub forests, grasslands, and some coastal scrublands of arid and semi-arid regions.**
- It is found in northwestern India (Gujarat, Rajasthan) and adjoining southeastern Pakistan; eastern and southern areas from Tamil Nadu, Andhra Pradesh and eastern Karnataka to Odisha and throughout Sri Lanka
- Threats to this species survival include illegal collection and habitat loss.
- Included in Appendix II of the CITES
- **IUCN status: vulnerable**
- Placed under **Schedule IV of the Wildlife (Protection) Act 1972**

About Chinnar wildlife sanctuary

- Chinnar Wildlife Sanctuary is a **unique protected area** located in the rain shadow region in the eastern slope of Western Ghats in **Idukki in Kerala**.
- The area is diverse in eco systems and rich in ethnic cultural heritage.
- It is a well-known repository of **medicinal plants**.
- It supports a population of grizzled giant squirrel, star tortoise, tufted grey langur, gaur, spotted deer, slender loris, wild elephant, crocodile, tiger, leopard and many a birds, insects and plants.

5.5. AMUR FALCON

Why in news?

Amur Falcon were spotted at Umred Karhandla Wildlife Sanctuary near Nagpur.

About Amur Falcon

- Amur Falcons are **the migratory bird** that stay every year at **Doyang lake** (Nagaland) during their flight from Mongolia to South Africa
- **Pangti village** in Nagaland is considered as the world's Amur Falcon capital
- Centre will soon develop the Doyang Lake area as an eco-tourism spot for bird-watchers across the world.
- Until recently, Amur falcons were hunted by Naga tribesmen for meat.

Umred Karhandla Wildlife Sanctuary

- It is situated in **Maharashtra** and is 60 km from nagpur.
- Umred-Karhandla Wildlife Sanctuary is declared as the **satellite core of Bor Tiger** Reserve by national tiger conservation authority
- It is the first sanctuary in Maharashtra to be declared as 'satellite core', which means a sub-protected area supporting another protected area.

5.6. URBAN FLOODING

Why in news?

The Union urban development ministry released a paper 'Urban Flooding — Standard Operating Procedure' that lays guidelines to be followed by various public agencies and government departments.

Standard operating procedure

- Increased instances of floods in urban areas e.g. Uttarakhand Flash Floods, Chennai Floods necessitated the need of a **standardised plan** to tackle such situation.
- Thus the Guidelines by the ministry include following instructions for various departments:

Urban floods are floods which occur in urban areas due to:
- Heavy rainfall
- Lack of water reservoirs such as lakes
- Silting of drainage system
- Population pressure, urbanisation and deforestation.
- Lack of flood control measures etc.

ULBs and development authority

- Setting up **emergency operations centres (EOCs) and crisis-control room** in the corporation room and municipal wards.
- Organise **temporary shelters** with food and water supply
- Coordinate rescue plan with departments such as industries (chemical accidents), fire brigade, police and the health department
- Set up **information centre** for sharing details with the media and the public.
- Urban development authority has to prepare **city master plans**, including disaster mitigation plan and integration of city drainage and sanitation plan.

Health department

- Set up **Epidemic Control Unit (ECU)**,and analyse data received from hospitals
- Maintain emergency stock of medicine, equipment and blood.
- It has to establish health facility and treatment centers at disaster/relocation sites.
- It has to prepare and maintain **crisis/epidemic management report** and submit a final one to the EOC.

PWD and irrigation department

- PWD has to maintain the drains periodically and **update the Drainage Master Plan**.
- maintain an inventory of all roads and bridges by hierarchy, and prepare a **disaster response map identifying safe routes and exit.**
- undertake repairs of buildings and related infrastructure

Power supply and telecommunication

- Power supply department has to **identify sensitive locations** around high-risk power installations and raise the level of transformers and substations above flood level
- Maintain emergency power supply lines to the temporary relief shelters.
- The telecom department should deploy **portable communicable system** in the vulnerable flood site

Police and fire department

- The police should ensure **crowd management**, it must have a detailed report on evacuation and other rescue.
- Fire department has to prepare emergency fire extinguishing facilities and boats for recuse in flooded areas.

5.7. DROUGHT IN SOUTH INDIA

Why in news?

Kerala and Tamil Nadu are facing an unprecedented drought – the worst ever in over a century, according to experts; Karnataka's northern districts are without water for the third consecutive year.

Droughts are not attributed to only scarcity of rainfall but more to inefficient management of water resources.

Eg- region with less rainfall but growing less water intensive crops like bajra is not said to have drought like condition

Reasons for the Drought?

- **Rainfed agriculture**-Failure of Northeast monsoon and lack of irrigation facilities being the major reason for the drought.
- **Urbanization** has converted the wetlands and other areas into concrete surfaces that does not allow the conservation of water.
- **Inter state river water disputes**: southern states are not ready to sit together and solve the problem of sharing of river waters.
- **Water has lost the cultural connect**- historically large number of ponds were connected to each other so that overflow of water in one reaches other, there used to be celebration of festivals for conservation of water has gone, etc.
- **Faulty cropping pattern-** water intensive crops such as paddy, sugarcane are given preference by farmers because of high Minimum Support Price(MSP) given by government

What can be done?

- Focus should be on developing large number of small reservoirs at local levels may or may not linked to irrigation canals. Eg Gujarat has developed large number of check dams in Saurashtra region.
- Agroclimatic cropping pattern- should be followed
- Increase investment in irrigation especially micro irrigation practices like drip irrigation. Pradhan Mantri Krishi Sinchayi Yojna would help in this.

Drought Crisis Management Plan, 2015

The manual sets out four important measures that a State government should take at the time of a drought, with the Union government's help.

- MGNREGA to provide immediate employment to drought-affected people.
- The public distribution mechanism should be strengthened to provide food and fodder
- initiate actions to recharge the groundwater table by building check dams and providing pipeline water and other irrigation facilities
- The government should either waive off or defer farmer loans and arrange for crop loss compensation.

5.8. BONN CLIMATE MEET

Why in news

- The Bonn Climate Change Conference, organized by UNFCCC begin in Bonn, Germany to further implementation of Paris Agreement.
- At Bonn, Parties would continue their work on formulating the rule book for implementation of the provisions of Paris Agreement, the deadline of which is agreed to be 2018.

About UNFCCC?

- In 1992, countries joined the United Nations Framework Convention on Climate Change, as a framework for international cooperation to combat climate change by limiting average global temperature increases.

Paris Agreement

- At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal.
- The agreement sets out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to well below 2°C.

6. SCIENCE AND TECHNOLOGY

6.1. FORTIFIED FOODS TO TACKLE MALNUTRITION

Why in news

- Targeting children, the Rajasthan, Madhya Pradesh, Haryana and Himachal Pradesh governments have begun using fortified oil for their mid-day meal schemes.
- West Bengal and Andaman and Nicobar Islands are now distributing fortified wheat flour through the public distribution system.

Steps taken by FSSAI

- The Food Safety and Standards Authority of India (FSSAI) released a set of standards and a logo last year.
- Since then, it has focussed on awareness- and consensus-building.
- The FSSAI is also working with small local suppliers, for instance local flour grinding mills, to get them to add premixed micronutrients.

Food for thought

Fortification of eatables is aimed at fighting malnutrition

What it means
Fortification is the addition of key vitamins and minerals, such as iron, iodine, zinc, Vitamins A & D, to staple foods such as rice, milk and salt to improve their nutritional content

- The nutrients may or may not have been originally present in the food before processing
- It is a simple, proven, cost-effective and complementary strategy in use across the globe
- The draft Food Safety and Standards Regulations, 2016, prescribe the standards for fortification of salt, oil, milk, and rice

6.2. TARANG SANCHAR PORTAL FOR INFO ON MOBILE TOWER RADIATION

Why in News?

- The Telecom Department launched a portal – Tarang Sanchar Portal, that will allow people to track radiation emitted from mobile towers within a locality.
- The portal will empower consumers to know about the towers working in a particular area and whether they are compliant to the Electromagnetic field (EMF) emission norms defined by the government.

Background

- The timing of the launch coincides with the recent SC order on deactivation of a mobile tower in Gwalior on the plea of a 42-year-old cancer patient. The order had intensified the debate on the impact of radiation from mobile phone towers on health.
- The government has maintained that the mobile tower emissions rules in India are ten times more stringent than the global norms.

6.3. NOVEL MOLECULE TO TREAT CANCER - DISARIB

Why in news

- A novel small molecule, designed and synthesised by Indian researchers, has shown promise in targeted killing of cancer cells.

The molecule - Disarib

- The molecule (Disarib) works by binding itself to a protein called BCL2, which suppresses the death of cancerous cells while sparing normal cells.
- While BCL2 protein is produced in excess in cancer cells, its expression is almost undetectable in normal cells. Hence, Disarib targets and kills only cancer cells.
- Unlike the FDA-approved BCL2 inhibitor ABT199, Disarib showed better efficiency in killing cancer cells. Also, compared with ABT199 inhibitor, the small molecule did not cause any side effects.

Issue

- Expression of BCL2 is low in certain cancer cell lines such as breast cancer, chronic myelogenous leukemia and cervical cancer. So the Disarib molecule would be ineffective in these cancers.

6.4. REVERSING DRUG RESISTANCE MADE POSSIBLE

Why in news?

- Indian Researchers have been able to reverse antibiotic resistance in E. coli (Escherichia coli).
- They have unravelled the mechanism by which hydrogen sulphide (H2S) gas produced by bacteria protects them from antibiotics and plays a key role in helping bacteria develop drug resistance.

The mechanism of antibiotics resistance

- Antibiotics kill by increasing the levels of reactive oxygen species (oxidative stress) inside bacterial cells. So any mechanism (here H2S gas) that detoxifies or counters reactive oxygen species generated by antibiotics will reduce the efficacy of antibiotics.
- The drug-resistant strains were naturally producing more hydrogen sulphide compared with drug-sensitive E. coli and by blocking/disabling the enzyme that triggers the biosynthesis of hydrogen sulphide in bacteria, the researchers, have been able to reverse antibiotic resistance in E. coli bacteria.

6.5. NASA'S NEW FRONTIERS PROGRAMME RECEIVES 12 MISSION PROPOSALS

Why in news?

- NASA's New Frontiers program, which organises robotic solar system missions of discovery costing up to $1 billion, has received 12 proposals for missions to a variety of destinations.

The New Frontiers Programme

- The New Frontiers strategy is to explore the solar system with frequent, medium-class spacecraft missions that conduct high-quality, focused scientific investigations designed to enhance our understanding of the solar system.
- This would be the fourth mission in the New Frontiers portfolio. Its predecessors are the New Horizons mission to Pluto, the Juno mission to Jupiter, and OSIRIS-Rex.

6.6. XFEL (WORLD'S BIGGEST X-RAY LASER) GENERATES FIRST X-RAY LASER LIGHT

Why in news

- European XFEL, the world's biggest X-ray laser has generated its first beam of light.
- The X-ray laser light was generated from an electron beam from a superconducting linear accelerator. In a 2.1 km long accelerator tunnel, the electron pulses were strongly accelerated and prepared for the later generation of X-ray laser light.

About XFEL

- The European XFEL is the largest and most powerful of the five X-ray lasers worldwide, with the ability to generate the short pulses of hard X-ray light.
- It is 3.4-kilometre-long and most of it is located in underground tunnels in Germany.
- The X-ray light has a wavelength of 0.8 nanometre – about 500 times shorter than that of visible light.

Possible Benefits

- The achievable laser light wavelength corresponds to the size of an atom, meaning that the X-rays can be used to make pictures and films of the nanocosmos at atomic resolution – such as of biomolecules, from which better understanding of the basis of illnesses or the development of new therapies could be developed.
- The facility will enable research into chemical processes and catalytic techniques, with the goal of improving their efficiency or making them more environmentally friendly; materials research; or the investigation of conditions similar to the interior of planets.

6.7. EMERGING SOURCES OF ENERGY

Why in new?

With the increasing growth of wind and solar energy in the recent decade, other sources such as hydrogen, ocean cold fusion, etc are showing promising results for future.

Background

- Wind and solar energy account for 7% of the country's electricity production which is quite small, and also their supply is intermittent
- Coal, on the other hand, while still being the dominant player is a source of pollution and global warming, and it is also consumes lot of water.
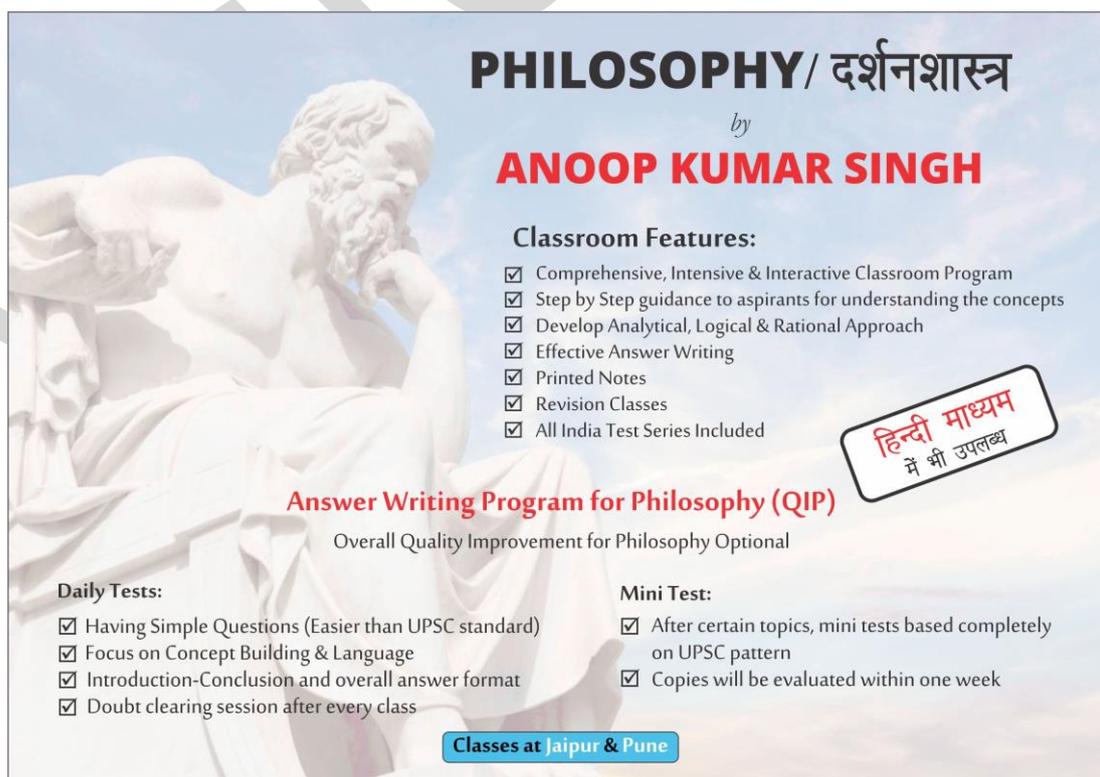
Hydrogen as fuel cells

- A fuel cell enables hydrogen and oxygen to blend in an electrochemical reaction. The result is production of electricity, water, and heat. They mimic batteries.
- Hydrogen as a pure gas is not easily available is the major impediment making it very costly source of energy

Ocean Energy

- There are three subsets of this 24x7 energy source — waves (including up-down bob of the water surface), tides and underwater currents.
- For tidal energy- To harness it, difference of at-least 16 feet between high and low tide is needed which is a major impediment.
- Waves generated by wind and currents could contribute significantly to a carbon neutral energy system but this is mainly at its developmental stage

Cold Fusion

- Cold fusion describes a form of energy generated when hydrogen interacts with various metals like nickel and palladium. Excess heat is generated by the interaction that can be used to turn the turbine.
- No radioactive materials are used in cold fusion and cold fusion makes no radioactive waste.
- The major challenge is to control the reaction.
- But they are very small, relatively simple, inexpensive and self-contained form of energy.

7. SOCIAL

7.1. MISSION INDRADHANUSH

Why in news?

- PMO (Prime Minister Office) had advance the deadline of **Mission Indradhanush** from 2020 to 2018.
- PMO will review the mission through multi-modal platform **PRAGATI (Pro-Active Governance and Timely Implementation)** platform.

Mission Indradhanush

- It is a strategic endeavour under Universal Immunisation Programme 1985.
- It targets to immunize **all children below two years** of age **either unvaccinated, or are partially** vaccinated as well as **all pregnant women**.
- Immunisation against **seven vaccine** preventable diseases namely; Diphtheria, Pertussis, Tetanus, Childhood Tuberculosis, Polio, Hepatitis B and Measles.
- Moreover, Vaccines for Japanese Encephalitis, Haemophilus influenza type B, inactivated polio vaccine, Rotavirus vaccine and Measles Rubella vaccine are also being provided in selected states.
- Mission is technically supported by WHO, UNICEF, Rotary International and other donor partners.

> **What is PRAGATI (Pro-Active Governance and Timely Implementation)?**
>
> - It is an integrating and interactive platform aimed at addressing common man's grievances, and simultaneously monitoring and reviewing important programmes.
> - It use the Digital data management, video-conferencing and geo-spatial technology.
> - It is a three-tier system (PMO, Union Government Secretaries, and Chief Secretaries of the States.

> **Universal Immunisation Programme 1985.**
>
> - The UIP provide free of cost vaccines to all children during the first year of life.
> - To protect them against **12 life threatening diseases namely**; tuberculosis, diphtheria, pertussis (whooping cough), tetanus, poliomyelitis, measles, Hepatitis B, Diarrhoea, Japanese Encephalitis, rubella, Rotavirus and **Pneumonia** (added in May 2017).
>
> **Pneumonia vaccine**
>
> - India accounts for nearly 20% of global pneumonia deaths.
> - Pneumococcal conjugate vaccine (PCV) will give protection against 13 types of pneumococcal bacteria.

7.2. HOME GROWN VACCINE FOR LEPROSY: MYCOBACTERIUM INDICUS PRANII

Why in News?

- National Institute of Immunology has developed Mycobacterium Indicus Pranii (MIP), an indigenous vaccine for leprosy.

Highlights

- India has been declared Leprosy free country in 2005 because of less than one case per 10,000 population.

> **What is Leprosy?**
>
> - Bacterial disease caused by Mycobacterium leprae,
> - Affects the skin and peripheral nerves.
> - Long incubation period generally 5-7 years.
> - Timely diagnosis and treatment of cases, before nerve damage has occurred, is the most effective way of preventing disability.

- However, about 60% of the global leprosy patients live in India and Annual New Case Detection Rate (ANCDR) stands at 9.71 per 1,00,000 population.
- MIP will be administered as prevention for people living in close contact with those infected by the bacteria.
- MIP is now being introduced into the **National Leprosy Elimination Programme (NLEP)**. It will boost the immune system against the bacterial disease.

7.3. ONE IP- TWO DISPENSARIES SCHEME AND AADHAAR BASED ONLINE CLAIM SUBMISSION FOR SOCIAL SECURITY

Why in News?

- Minister of State for Labour and Employment, launched two schemes namely; **One IP- Two Dispensaries** and **Aadhaar based Online Claim Submission**.

Highlight of the Schemes

- Two Dispensaries schemes of **ESIC** has given an option to an Insured Person (IP) to choose two dispensaries, one for self and another for family through an employer.
- It will benefit all IPs, especially migrant workers who are working in other than home State.
- Moreover, Aadhaar based online Claim Submission scheme will provide an easy PF (Provident Fund) final settlement under **EPFO**.

What is EPFO (Employee Provident Fund Organisation)?	What is ESIC (Employee State Insurance Corporation)?
- It is statutory body under ministry of Labour and Employment implement retirement benefit scheme that's available to all salaried employees. - EPF scheme is applicable to any company employing 20 or more persons. **Does not apply to** the co-operative societies employing less than 50 persons and the organisation who have their own EPF scheme but supervisor rest with EPFO.	- It is a statutory, autonomous corporation under ministry of Labour and Employment Established in 1948. - It implements medical and cash benefits to employee of organised sector against the events of sickness, maternity, disablement and death due to employment injury. - Applicable to all the States except Manipur, Sikkim, Arunachal Pradesh and Mizoram. - Mandatory for non-seasonal factories employing 10 or more persons and establishments employing 20 or more persons in certain states. - Social security coverage over Shops, hotels, restaurants, cinemas including preview theatres, road-motor transport undertakings and newspaper and Private Medical and Educational institutions.

7.4. NEED FOR NATIONAL POLICY ON THALASSEMIA

Why in News?

- On World Thalasemia day (May 8) various researchers and health experts call for National Policy on Thalassemia.

Why National Policy is needed?

- India is the thalassaemia capital of the world with 40 million carriers and over 1,00,000 thalassaemia majors under blood transfusion every month.
- Thalassaemia is now considered as a **disability** under Rights of Persons with Disabilities Act 2016, rather than a **health issue**.

What is Thalassemia?
- It is a genetic blood disorder with no cure except bone marrow transplant (BMT).   - Characterised by abnormal production of haemoglobin in the body. The abnormality results in improper oxygen transport and destruction of red blood cells.   - Lead to iron overload, bone deformities and in severe cases can cause heart diseases.   - It require regular blood transfusions as an effective measure to prolong life.

- National Health Policy 2017 has overlooked the rare and genetic disease which is huge burden on public exchequer.

7.5. SWACHH SURVEKSHAN 2017: INDORE CLEANEST CITY

Why in News?

- On May 4 2017, Ministry of Urban Development has released the finding of Swachh Survekshan 2017.

Quality Council of India
- It was set up jointly by the Government of India and ASSOCHAM, Confederation of Indian Industry (CII) and FICCI   - Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, is the nodal ministry for QCI.   - Provide right and unbiased information on quality related standards   - Represent India's Interest in International forums.

Highlights

- The Swachh Survekshan 2017 was conducted by **Quality Council of India** in 434 cities and towns to monitor the progress of the Swachh Bharat Mission.
- Indore has been declared the cleanest city in India and Bhopal ranked second.
- Gujarat has the highest number with 12 of its cities among the top 50 clean cities followed by Madhya Pradesh with 11 cities.

> **Swachh Survekshan-2017** - Aimed at capturing the outcomes of efforts towards:
> - Open Defecation Free
> - Door-to-door collection of garbage
> - Processing and disposal of Municipal Solid Waste.

7.6. HEALTH MINISTRY'S EVIN PROJECT

Why in news?

Electronic vaccine intelligence network (eVIN) project of Ministry of Health and Family Welfare has been lauded by various developing countries.

About eVIN

- eVIN is an indigenously developed technology system in India that digitises vaccine stocks and monitors the temperature of the cold chain through a smartphone application.
- The technological innovation is implemented by the United Nations Development Programme (UNDP).
- By streamlining the vaccine flow network, eVIN is a powerful contribution to strengthening health systems and ensures equity through easy and timely availability of vaccines to all children.

Some achievements

- Implemented in 371 districts in 12 states, Digitized vaccine inventories and record-keeping at nearly 10,500 vaccine stores and cold chain points.
- Achieved a regular reporting rate of more than 98 percent from these vaccine storage points.
- Monitored more than one –fourth of all the Mission Indradhanush districts as National Monitors and collected information on baseline and follow up coverage rates.

8. CULTURE

8.1. BASAVA JAYANTI

Why in news?

- **Basavanna Jayanti or Basava Jayanti** which marks the 884th birth anniversary of 12th century social reformer **Basaveshwara** was recently celebrated in Karnataka.

About Basaveshwara

- He is considered to be the founder of **Lingayatism or Lingayat Sect or Veerashaivism**.
- He was responsible for sweeping social changes in Karnataka during 12th century.
- He stood for the upliftment of the downtrodden and fought the evils that had crept into the Brahmanic Vedic tradition.
- He scripted his practical experiences in a novel form of literature called –**Vachana (poetry).** The main aim of Vachana (poetry) movement propagated welfare for all.
- He heralded the establishment of **'Kalyana Rajya' (Welfare state**)
- He gave two important and innovative concepts called "Sthavara ''and "Jangama'', the meaning of which is "Static'' and ''Dynamic'' which are the main foundation stones of the revolutionary ideology of Basavanna.

8.2. SAINT TYAGRAJA

Why in news?

- Recently the 250th birth anniversary of Saint Tyagraja was celebrated.

About Saint Tyagraja

- Saint Tyagraja is one of the principal composers of the Carnatic trinity along with along with Muthuswami Dikshitar and Syama Sastri.
- He is referred to as Thyagabrahmam.
- Tyagaraja was born on 14th May 1767 in the village of Thiruvayaru in the Thanjavur district of Tamil Nadu.
- With the influence of Ramayana, he became an ardent devotee of Lord Rama. He composed about 24000 songs in his life devoted to Lord Ram.
- Tyagaraja Aradhana, a music festival conducted in honour of Tyagraja is organized in Thiruvaiyaru between the months of January and February every year.

8.3. THAKURANI JATRA FESTIVAL

What is it?

- The month long festivities of the Thakurani Jatra festival recently concluded in the city of Behrampur.

About the Festival

- Thakurani Jatra festival is a **biennial festival** celebrated in the **city of Behrampur (the silk city), Odisha.**
- Also known as **Ghata Yatra,** it is the chief festival of Southern Odisha.
- The festival marks the worship of Maa Buddhi Thakurani who is considered the **istadevi** and **Surakshya Kabacha (protector)** of the city of Behrampur.
- Originally the Deras, a weaver community, worshiped the goddess.

8.4. BANGANAPALLE MANGO

Why in news?

- **Registrar of Geographical Indications Registry (RGIR)** granted the Banganapalle Mango and **Bandar Laddu** the geographical indication (GI) tag, both belonging to Andhra Pradesh.

What is GI tag?

- The GI tag is an indication that is definite to a **specific geographical territory**. It is used for agricultural, natural and manufactured goods having special quality and established reputation.
- For a product to get the tag, it needs to be produced or processed or prepared in that region.
- The GI tag is governed by the **Geographical Indications of Goods (Registration and Protection Act), 1999.**
- This Act is administered by the Controller General of Patents, Designs and Trade Marks, who is also the Registrar of Geographical Indications.
- The registration of a GI is valid for 10 years after which it needs to be renewed.

9. ETHICS

9.1. WORLD PRESS FREEDOM DAY

Every year, the fundamental principles of press freedom are celebrated on 3rd may, as proclaimed by UNGA in 1993.

Why media ethics or press freedom is important?

- Watchdog of democracy
- Crucial for development and protecting all human rights
- Enabling voice of common man to be heard and access to information for the community

> **About Reporters Without Borders (RWB)**
> - Located in Paris, France It is an international non-profit, non-governmental organization that promotes and defends freedom of information and freedom of the press.
> - The organization has consultant status at the United Nations.
> - It compiles the **World Press Freedom Index** every year that ranks 180 countries according to the level of freedom available to journalists.

- Raising awareness and culture of tolerance and combating hatred
- Paying special attention to areas and countries undergoing conflict, post-conflict, and transition situations.
- Preventing escapist approach and attitude in the minds of governments at various levels in various countries.

Various ethical issues involved in press

The world press freedom report shows that there has been a deep and disturbing decline in respect for media freedom at both the global and regional levels. Although there are various issues concerning the media, they can be summarized under one word, i.e., "**freedom**" of press to collect and disseminate news in a truthful manner. However, there is other side to this issue as well, which is **responsibility** of media. Thus, various values and norms should be followed from both sides.

Norms to be followed by politicians/organizations controlling/analyzing media

- **Freedom of expression** – It is seen as an inalienable human right which is more important for a person in profession of journalism. He/She needs to make sure that the masses are informed about the true picture of events happening around the world.
- **Security and safety of media persons** – Adequate mechanisms should be in place to prevent harassment of editors, publishers etc. and attacks and loss of lives of journalists while pursuing their profession. System should be strengthened to penalize the concerned person sternly so that resulting self-censorship from violence does not deprive society of information
- **Culture of tolerance and openness** - Restrictions on publications such as censorship, fine, suspension and closing down should be taken only when extremely required. In fact, people in authority should encourage questioning by journalists regarding their actions to promote transparency and accountability
- **Rules to prevent corporatization** of media because corporatization has led to worrying about profit and loss. Thus, issues such as contract appointments becoming the norm, controlling journalists through transfer and salary, no job protection in the visual media etc. are cropping up

Norms and ethics to be followed by media persons

- **Understanding their responsibility** – especially in countries like India, plagued with backward ideas such as casteism, communalism, poverty, social evils such as honour killing etc.
- **Accuracy, honesty and fairness** – in collection and publication of news because it is directly related to public interest and at times, may affect the reputation of a person unnecessarily
- **Truthfulness**– Efforts should be made to present facts without distortion of news especially in this post-truth world where element of truth are mixed up with certain elements of untruth to create sensation.
- **Representativeness and diversity** - Editors should curb paid news and the organization should promote opinions from all sections of society (ethnic and linguistic minorities, persons with disabilities, marginalised groups, women etc.) equally without discrimination. For this, internal diversity is required
- **Focus on real problems** and not non-issues such as those concerning the activities of film stars, models, cricketers and so on and give more prominence to much more important issues that are basically socio-economic in nature.

- **Professionalism and self-regulation –** in areas such as content and use of audits (both qualitative and quantitative), ethical codes, professional secrecy regarding source of information, non-plagiarism and sector-led performance assessment based on specific targets.
- **Respect for privacy** and people's private lives and no defamatory criticism should be made unless required through legitimate perception of the public interest.
- **Promotion of values** – as they leave imprint on the young minds. Thus there should not glorify power, brutality and immorality.

Situation in India

India ranks abysmally low at 133 among 180 countries in World press freedom index 2016, despite jumping 3 spots up compared to last year. The Indian media is grappling with various issues such as

- Attack on Journalists and bloggers by various religious groups that are quick to take offense
- Restricted access to certain regions such as Kashmir that are regarded as sensitive by the government
- Indifference to these threats and problems in higher echelons of government
- No mechanism for protecting journalists etc.

Way forward

Following steps can be taken to ensure media freedom as well as their accountability

- **Promotion of community media** – It ensures media pluralism and freedom of expression and an alternative to public, commercial and social media with greater focus on local issues of concern, accountability to community covering rural and hard-to-reach populations as well. Thus governments should ensure legal recognition, fair access to spectrum, licensing, funding etc.
- **Promotion of active media watch groups** - as India is among the few democracies without such groups engaged in objective analyses of the media, discerning prejudices and latent biases, and subjecting the media to systematic criticism and scrutiny.

Promotion of media writing about media itself - there is often an unstated rule that prevails in most newspapers: media doesn't write on media and media organizations won't write about each other, either in praise or in criticism. Most Indian newspapers also don't have an open policy on acknowledging mistakes or misreporting.

10. MISCELLANEOUS

10.1. LEARN TO TRAP MONKEYS FROM MANKIDIA TRIBE

Why in news?

Odisha, the State's Forest and Environment Department has asked its personnel to learn a few tricks from the Mankidia tribe to contain the menace.

Mankidia tribe
- They are classified as Particularly Vulnerable Tribal Groups (PVTGs) in Odisha.
- They are semi nomadic and they used to hunt monkey for its meat.

Ingenious method

When they spot a monkey in a tree, they surround it by climbing nearby trees and structures. Once it is surrounded, they shake the tree till the animal falls. A team on the ground, who are ready with a net, quickly trap the animal.

10.2. 2016 INDIAN EXCLUSION REPORT (IXR)

- The 2016 Report released by Center of Equity Studies reviews exclusion with respect to four public goods: pensions for the elderly, digital access, agricultural land, and legal justice for undertrials.
- Most severely and consistently excluded from provisioning tend to the same historically disadvantaged groups: Dalits, Adivasis, Muslims, and persons with disabilities and age-related vulnerabilities.

10.3. GRIEVANCE REDRESSAL APP FOR CAPF

- The Union home ministry has recently launched a grievance redressal mobile app for the Central Armed Police Forces (CAPF).
- It will give soldiers a direct line of contact with home ministry and if there is delay or lag, the matter could be escalated to Home minister as well.
- It will help increase transparency and avoid grievance being aired in social media.

The CAPF includes jawans from the
- Border Security Force (BSF),
- Central Reserve Police Force (CRPF),
- Central Industrial Security Force (CISF),
- Indo-Tibetan Border Police (ITBP) and
- Sashastra Seema Bal (SSB).

10.4. INDIAN RAILWAYS TO INTRODUCE EOTT

- The **Indian Railways** will soon introduce **End of Train Telemetry (EoTT)** equipment used to establish communication between the **locomotive driver and the last wagon of the train** ensuring that the train is running with all coaches/wagons as a complete unit.
- In case of a train parting, the system is designed to indicate to the driver the parting of the train and to apply brakes to the rear unit.

CURRENT AFFAIRS

MAY 2017

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1. POLITY AND CONSTITUTION

1.1. LOKPAL AND THE LAW

Why in news?

- Recently, the Supreme Court made it clear that the existing Lokpal and Lokayuktas Act, 2013 is workable in its present form.

Why clarification was needed?

- Government argued that in the absence of leader of opposition, selection committee could not be constituted and it has introduced an amendment to the lokpal act to address the situation.
- Thus, the court clarified that the Act provides for the selection committee to make appointments even when it is truncated due to a vacancy.

Some important features of the Lokpal and Lokayuktas Act

- **Constitution** of Lokpal at the Centre and Lokayukta in states - States to set up lokayukta within a period of 365 days from the date of commencement of the Act.
- **Composition** - Lokpal will consist of a chairperson and a maximum of eight members, of which 50 per cent shall be judicial members and 50 per cent of members of Lokpal shall be from SC/ST/OBCs, minorities and women.
- **Selection committee** - The selection of chairperson and members of Lokpal shall be through a selection committee consisting of Prime Minister, Speaker of Lok Sabha, Leader of Opposition in the Lok Sabha, Chief Justice of India or a sitting Supreme Court judge nominated by CJI, eminent jurist to be nominated by the President of India on the basis of recommendations of the first four members of the selection committee.
- **Jurisdiction of lokpal** - Prime Minister has been brought under the purview of the Lokpal. All entities receiving donations from foreign source in the context of FCRA in excess of Rs 10 lakh per year are brought under the jurisdiction of Lokpal.
- **Power with respect to CBI** - Lokpal will have power of superintendence and direction over any investigation agency including CBI for cases referred to them by Lokpal. Transfer of officers of CBI investigating cases referred by Lokpal with the approval of Lokpal.
- **Attachment of property** - The act also incorporates provisions for attachment and confiscation of property acquired by corrupt means, even while prosecution is pending. The act lays down clear time lines for preliminary enquiry, investigation and trial.

Issues with lokpal

- **Delay in appointment of Lokpal** due to the lack of political will.
- **Dilution of provisions through amendment** – The bill passed in 2016 has done away with statutory requirement of public disclosure the assets of public servants' spouses and dependent children.
- **Non-convergence with PCA –** The vesting of power of prior sanction with Lokpal has been almost nullified with amendments in prevention of corruption act which strengthen the requirement to seek government's permission.
- **Against separation of power –** Lokpal, being an administrative committee (a part of the executive), amounts to judiciary being proposed for executive duties .
- **Free hand to states** – The determination of nature and type of lokayuktas has been completely left on the state's discretion which leads to various problems. For example – misuse of power in appointment such as the lokayukta of UP remained in the post even after the once extended duration was also ended.
- **Ambit of Lokpal** – judiciary is totally excluded.

Way forward

While the Lokpal bill has been passed by Parliament, a number of steps still needs to be taken to make it effective such as:

- Effective implementation of the passed bill.
- Passing of other supporting bills which address issues related to tackling corruption such as citizen charter and electronic public service delivery, whistle blower protection, judicial accountability, etc.

- Strict guidelines and norms need to be setup to ensure that the institution of Lokpal does not get buried into day to day complaints regarding administrative inefficiency, corruption etc.

1.2. NATIONAL DEVELOPMENT AGENDA

Why in News?

- NITI Aayog recently prepared a draft three year action agenda which is a part of the overall National Development Agenda.

Background

- Planning Commission was abolished in 2014 and thereby the relevance of five year plans ended.
- Thereafter the Prime Minister Office advised NITI Aayog to prepare a National Development Agenda comprising of Fifteen Year Vision, Seven Year Strategy and Three Year Action Agenda.

(Source: NITI Aayog)

Provisions

- NITI Aayog has selected some key items for its draft 3 year action agenda. These are:
    o **Three year revenue and expenditure framework**
    o **Energy**
    o **Governance, Taxation and Regulation**
    o **Doubling Farmers' income by 2022**
    o **Job creation in industry and services**
    o **Urban Development**
    o **Regional Strategies** for regions like North East, Desert Areas, Coastal regions, Drought regions and Himalayan region.
    o **Transport and Digital Connectivity -** Facilitate PPPs by reorienting the role of the India Infrastructure Finance Company Ltd. (IIFCL), introduce low cost debt instruments and operationalize the National Investment Infrastructure Fund (NIIF).

- **Science and Technology –** Create national database of schemes, create National Science, Technology & Innovation Foundation etc.

Significance

- With a more open and liberalized economy, the planning agenda had to be changed according to the recent economic realities. Therefore comprehensive plan for long term and short term is a welcome step.
- It would create a multisectoral approach to developing an inclusive and sustainable economy.

1.3. INTEGRATED CASE MANAGEMENT INFORMATION SYSTEM

Why in news?

- The 'Integrated Case Management Information System' (ICMIS) has been introduced in the apex court for digital filing.

Functions of ICMIS

- Its functions include the option of e-filing cases, checking listing dates, case status, online service of notice/summons, office reports and overall tracking of progress of a case filed with the apex court registry.
- It will operate as an online gateway for payment of court fee and process fee, an online court fee calculator.

Benefits of ICMIS

- This will streamline the filing process for both the advocates and the registry.
- This will ensure transparency, provide easy access to case information and help in reducing the time in filing pleadings which, in turn, would increase the pace of judicial process.

1.4. ICT VISION DOCUMENT 2025

Election commission has come up with ICT vision document 2025 which spells out the strategy of adopting recent technologies and consolidating existing technologies in the Election ecosystem. There are four major components of the ICT 2025.

- Integrated Software application.
- GIS, Analytic and Integrated Contact Centre.
- IT infrastructure including data center, IT security, disaster recovery.
- Knowledge Management, Capacity building and social media engagement.

1.5. MUNICIPAL BONDS

Why in News?

- Recently, 94 cities across 14 states received credit ratings from agencies such as Crisil as part of their preparations for issuing municipal bonds.
- It rated the cities covered under Smart city Mission and AMRUT mission.
- 55 of these cities got "investment grade" ratings, 39 received credit ratings below the investment grade (BBB-).

Need

- Indian cities revenue is **less than 1% of gross domestic product**. The net result is that cities do not have adequate financial autonomy.

DETAILS OF CITIES AND TOWNS AND RESPECTIVE CREDIT RATINGS:

Credit ratings	Cities/Towns
AA+	New Delhi Municipal Council (NDMC), Navi Mumbai and Pune
AA	Ahmedabad, Visakhapatnam and Greater Hyderabad Municipal Corporation
AA-	Surat, Nashik, Thane and Pimpri-Chindwad
A+	Indore, Kishanganj(Rajasthan), Kolkata, Vadodara(Gujarat) and Warangal(Telangana)
A	Jhunjhunu (Rajasthan)
A-	Alwar, Bhiwadi, Beawar, Jaipur(Raj), Bhopal,Jabalpur(MP), Mira Bhayandar(Maha) and New Town Rajarhat(W.Bengal)
BBB+	Ajmer , Kota and Udaipur(Rajasthan), Ludhiana(Punjab) and Jamnagar(Guj)
BBB	Kakinada, Anantapur, Kurnool and Tirupati (Andhra Pradesh), Davanagere and Hubbali-Dharwar(Karnataka), Kochi and Trivendrum (Kerala), Panaji (Goa), Kolhapur and Nagpur(Maharashtra), Jodhpur, Nagaur and Tonk(Rajasthan)
BBB-	Amaravati (Maharashtra), Belgavi (Karnataka), Bharuch and Bhavnagar (Gujarat), Bharatpur, Bhilwara, Bikaner and Hanumangarh(Rajasthan), Chittor and Cuddapah (Andhra Pradesh), Cuttack (Odisha), Ranchi (Jharkhand).
BB+	Proddatur, Nandyal and Nellore (Andhra Pradesh), Kollam and Kozhikode (Kerala), Kalol, Nadiad and Navsarai (Gujarat), Nanded and Solapur (Maharashtra), Gangapur City, Dhaulpur, Pali and Sawai Madhopur (Rajasthan)
BB	Adoni and Tadipatri (Andhra Pradesh), Dwaraka (Gujarat), Aizawal (Mizoram), Thrisur (Kerala), Berhampur, Rourkela and Sambhalpur (Odisha), Bundi, Churu, Chittorgarh, Hindaun, Jodhpur and Sujangarh (Rajasthan)
BB-	Adityapur, Chas, Deogarh and Giridh (Jharkhand), Mori (Gujarat), Baran and Jhalawar (Raj)
B+	Baripada and Puri (Odisha) and Hazaribagh (Jharkhand)
B	Bhadrak (Odisha)

Source: Ministry of Urban Development

Background

- The **committee on urban infrastructure** headed by **Isher Judge Ahluwalia** (2011) had estimated that Indian cities would need to invest around Rs 40 trillion at constant prices in the two decades to 2031.
- **Municipal bond regulations were released by the SEBI in 2016**.
  - Municipal bonds in India shall enjoy tax-free status if they conform to certain rules and their interest rates will be market-linked.
  - Municipal Corporation needs to have **investment grade credit rating** and **must contribute at least 20 per cent of the project cost**.
  - The corporation must **not have defaulted on any loans in the last one year**.
  - The corporation is required to **maintain full asset cover** to repay the principal amount. Revenues from the project for which bonds were raised are to be **kept in a separate escrow account** and banks or financial institutions would monitor the account regularly.
- In 2017, NITI Aayog in its Three-year Action Agenda document also talks of utilizing Municipal Bond market.

Significance

- Low cost of borrowing will be an advantage for the ULBs, whose projects typically have low viability, long gestation period and low to moderate cost recovery. Higher the rating of corporation, lower is the interest and cost of borrowing.
- Municipal Bonds are necessary for the financial independence of the Urban Local Bodies.

Challenges

- Bond investors are unlikely to put money into cities unless they are convinced about their fiscal strength.
- Till now **most of the municipal bonds have been privately placed and not tradable**. This has disincentivized the adoption of municipal bonds. There is a **need of State guarantees** for the bonds.

- It **can also be a source of inequalities** because the better rated municipal corporations would corner most of the investment, crowding out the investment for the already infrastructurally backward cities.

Way forward

- Best practices like
  - The Development Bank of South Africa using its balance sheet to support municipal bond issues
  - Denmark having an agency to protect bond-holders in case one city in the pool defaults

- o Japan Finance Corp. for Municipal Finance having a sovereign guarantee etc. should be followed by India.
- Municipal bonds should be seen as only one part of city finances. Cities need to generate more revenue as well as get more untied funds from the money collected through the new GST. For all this, city administrations need to be empowered.

1.6. RESTRICTIONS ON TRADE IN CATTLE

The Union government has recently notified Prevention of cruelty to animals (Regulation of Livestock Markets) Rules, 2017 under Prevention of Cruelty to Animals Act, 1960 for restricting trade in cattle.

Rationale behind this decision

- Prevention of Cruelty to Animals Act, 1960
- Supreme Court directions regarding improving the condition of animals in markets where they are sold
- Supreme Court order that directed the government to frame guidelines to prevent cattle smuggling to Nepal for the Gadhimai Festival.

Key provisions in new formulated rules

- **Ban on sale of cattle for slaughter** at animal markets across the country. The cattle can now be purchased only for "agricultural purposes".
- **Specifying the term "Cattle"** - "Cattle" in the notification includes bulls, bullocks, cows, buffaloes, steers, heifers and calves, as well as camels.
- **Introducing lot of paperwork** – for both seller and buyer
- **Regulating the animal market** – Approval of District Animal Market Monitoring Committee (DAMMC) is required to run the market. Other provisions such as no sale of young and unfit animals, certification of veterinary inspector and separate facilities for sick animals in these markets are also included.

> **Prevention of Cruelty to Animals Act, 1960**
> - It was enacted to prevent the infliction of unnecessary pain or suffering on animals
> - It extends to whole of India except J&K
> - Animal welfare board of India in MoEF, was established under this act.
> - It regulates animal markets, dog breeders, aquarium and pet fish shop owners
> - Treating animals cruelly under this act, includes:
>   - ✓ inflicting pain through beating etc.
>   - ✓ willfully and unreasonably administering drugs
>   - ✓ caging, conveying and carrying animals inappropriately as to cause pain & suffereing to them
>   - ✓ mutilating any animals etc.

- **Regulating Inter-state and Inter-national movements -** No animal market can now be organised within 50 km of an international border and 25 km of a state border. Taking animals outside the state will require special approval of the state government nominee.
- **Prohibiting cruel practices** – like slaughter, painting of horns and cutting the ears of buffaloes. Also DAMMC is duty-bound to ensure that no animal is kept in a pen or cage unsuitable for its size.

Effects of these rules

Although prohibitions on the cruelty inflicted in the transport and treatment of animals are welcome, but these new rules are going to affect various stakeholders associated with cattle trade.

- **Cattle owner/farmer** – Almost 30% of a farmer income comes from animal wealth, now he will be burdened to maintain old ones. Also, they act as natural insurance for farmers. For instance, the carcass of an animal dying of "natural causes" also can't be sold in the market as rules prescribe that the carcass will be incinerated and not be sold or flayed for leather.
- **Slaughter houses** – These rules are likely to make sourcing of meat difficult for slaughter houses.
- **Leather & meat industry** – These industries will be crippled as 90% of slaughtered buffaloes are bought and sold in animal markets which has been banned now. Their supply chain is choked. It may also lead to unemployment.
- **Consumer** – It takes away a cheap source of nutritious food for the poor.
- **Exports** – India could lose on 30000 crores worth of exports.
- **Environment** – In India 80 million cattles are unproductive. Government and private cow shelters will be able to take care of only 5-10% of it. Thus, rest of them is going to cause environmental and sanitation concerns as owners would not be able to afford their upkeep.

Other issues with the rules

- **Against its parent act** – The act does not categorise slaughter of animals for food as cruelty. Thus, rules seem to be invalid as they go against what the parent act permits by prohibiting the sale of cattle for slaughter or sacrifices at animal markets. The court also had specifically noted how Section 28 of the Act mandates that it is not an offence to kill any animal in a manner required by the religion of any community.
- **Against federalism** – Invoking 1960 law for these rules is a blatant attempt to interfere with the powers of state. Historically, different cow slaughter laws have been passed by different States as "agriculture" and "the preservation of stock" fall within the exclusive legislative competence of the States.
- **Against fundamental rights** - slaughtering of animals for food, culinary made out of such animal flesh etc. is a part of cultural identity of some communities, Thus it goes against Article 29 which is not been subjected to any restriction in Constitution. It also violates **right to food, privacy, personal liberty** of a citizen
- The reasonability of restriction on trade needs to be tested against the fundamental **right to occupation**, trade or business under **Article 19 (1) (g)**
- **No rational basis** – to limit the rules to select few animals. The pain is inflicted on other animals as well while they are traded and consumed.

Constitutional position

This dispute has a history starting with founding of the Republic where the subject of cow slaughter was one of the most fraught and contentious topics of debate. On the call of prohibition of cow slaughter to be made part of the fundamental rights, the Constitution's Drafting Committee agreed upon a compromise.

It was included as a **DPSP under Article 48** which says the state shall "organise agriculture and animal husbandry on modern and scientific lines and shall, in particular, take steps for preserving and improving the breeds, and prohibiting the slaughter, of cows and calves and other milch and draught cattle."

> 1958 - MH Quareshi v State of Bihar – SC held that a total ban on the slaughter of she-buffaloes, bulls and bullocks (cattle or buffalo) after they cease to be capable of yielding milk or of breeding or working as draught animals cannot be supported as reasonable in the interest of the general public.
>
> 1996 - Hasmattullah v. State of Madhya Pradesh SC held that a total ban on slaughter of bulls and bullocks would impose an unreasonable restriction on the fundamental rights of butchers. Thus, the total ban on the slaughter of cows, calves of cow and calves of she-buffaloes was upheld as earlier.
>
> 2005 - State of Gujarat v Mirzapur Moti Kureshi Kassab Jamat SC held that a species of cattle which is milch or draught for a number of years is to be included within the expression "cows or calves" which partially overruled the decision in MH Quareshi case.

Even Supreme Court also has given various contradictory judgements (see box) over the years on the attempts of government to impose a total ban.

1.7. INTERNATIONAL COMPARISON PROGRAM

- India is participating in the current phase of International Comparison Programme (ICP) with reference to 2017.
- ICP is a global statistical initiative led by World Bank under the auspices of the **United Nations Statistical Commission**.
- It supports inter-country comparisons of Gross Domestic Product (GDP) and its components, in terms of PPP (Purchasing Power Parity).
- It is compared using PPP as the objective is to make GDP comparable across countries, which in turn can be used to compare
  - size of the economy
  - economic welfare of the populations
  - productivity
  - investment potential
  - incidence of poverty etc.
- The data collection of prices in rural and urban areas will be taken **up by Ministry of Statistics & Programme Implementation (MOSPI)** all over the country.

1.8. PREVENTIVE DETENTION

Why in news?

- Recently Supreme Court held that Preventive detention of a person by a State after branding him a 'goonda' merely because the normal legal process is ineffective and time-consuming in 'curbing the evil he spreads' is illegal.
- The authorities in Telangana had takena seed manufacturer into preventive detention (under Telangana Prevention of Dangerous Activities of Bootleggers, Dacoits, Drug Offenders, Goondas, Immoral Traffic Offenders and Land Grabbers Act, 1986) on allegation of selling spurious seeds to poor farmers.

Arguments for this judgement

- **Liberty of citizen** - Detention affects liberty of the citizen under Article 14, 19, 21, 22 of the constitution
- **Abuse of discretionary powers by executive** - The power is statutory in nature, thus, must be exercised for the purpose it is conferred, i.e., within the limits of the statute.

About preventive detention

Preventive detention, the most controversial of all fundamental rights, is detaining without trial to prevent possible commitment of crime on suspicion that some wrong actions may be done by the person concerned. The four grounds for Preventive detention are—

- security of state
- foreign affairs or security of India
- maintenance of public order
- maintenance of supplies and essential services and defence

A detainee under preventive detention can have no right of personal liberty guaranteed by Article 19 or Article 21. The Article 22 (3) also provides that the protection against arrest and detention under Article 22 (1) and 22 (2) shall not be available, if a person is arrested or detained under a law providing for preventive detention,.

1.9. SEPARATE TRIAL FOR DISTINCT OFFENCES

Why in news?

- SC recently gave a judgement that separate trials should be conducted in all cases related to multi-crore fodder scam saying "joint trial is an exception and the norm is separate trials for distinct offences."

Background of the issue

- Fodder scam involved fraudulent withdrawal of around Rs 1,000 crore by the Animal Husbandry department from various districts between 1990 and 1997.
- Various cases were filed against the accused persons for amounts withdrawn from different treasury in different points of time.

Reasoning given by apex court

- Although there was "one general conspiracy", the "offences are distinct for different periods", i.e., misappropriation of funds are from different treasuries for different financial years.
- The Constitution bars double punishment for the same offence but conviction for such offence does not bar for subsequent trial and conviction for another offence even if the modus operandi is same.

    > Article 20(2) says that no person shall be prosecuted and punished for the same offence more than once.

- Only one trial for one conspiracy for separate offences would enable the accused person to go undamaged and commit number of offences

Other related issues

- Jharkhand High Court gave a "contradictory" judgment in the matter of another accused in the same case. Thus, showing inconsistency in decision making which will affect people's faith and credibility of institution.
- Delay by CBI in filing appeal against dropping of charge, thus, agency also failed to live up to its reputation.

1.10. ARTICLE 142 AND THE NEED FOR JUDICIAL RESTRAINT

Why in news?

- There are criticisms on the frequent usage of Article 142 by the apex court in various cases such as highway liquor ban, ordering joint trial of the two Babri Masjid demolition cases.

> **Article 142** states that "the Supreme Court in the exercise of its jurisdiction may pass such decree or make such order as is necessary for doing **complete justice** in any cause or matter pending before it…"

Causes of concern

- **Unlimited power** - Article 142 is not a source of unlimited power and there should be self-restraint in using it that the orders under 142 does not amount to **judicial overreach.**
- **Affects rights of citizen** – these two judgments affect rights of accused in one case and render lakhs of people unemployed in the other.
- **Unconstitutional** - It is against the **doctrine of 'separation of powers'**, which is part of the basic structure of the Constitution.
- **Uncertainty about discretion as** in the apex court, 31 judges sit in thirteen divisions of two or three to decide the cases and each bench is independent of the other.

Way out

Although apex court has used Article 142 in good ways such as Union carbide case, cleansing of Taj Mahal, release of undertrials in jail etc., yet following restraints should be considered to bring complete justice to various deprived sections of society under Article 142 in general:

- Cases invoking Article 142 should be referred to a Constitution Bench of **at least five judges** to decrease uncertainty around article 142.
- In cases where the court invokes Article 142, the government must bring out **a white paper to** study the beneficial as well as the negative effects of the judgment after a period of six months or so from its date.
- Supreme Court should follow it's much reiterated principle that recourse to Article 142 of the Constitution is inappropriate, wherever a statutory remedy is available.

1.11. JUDICIAL CONDUCT

What is the issue?

- For the first time, Supreme Court of India has sentenced a HC judge (Justice Karnan) to six month's imprisonment on charges of contempt of court. The Court had taken suo-moto cognizance of the letters, circulated by Justice Karnan, openly accusing them of corruption.
- Earlier, Justice Karnan ordered CJI and six others to five years in jail under SC/ST Act.

Concerns Raised

- **Absence of any machinery** for taking disciplinary actions against judges of the superior courts other than their impeachment.
- **Problems with the impeachment -** long-drawn-out and difficult process along with its political overtone.
- **Only informal measures available** – such as change in workload, relieve judge of all judicial work, or transfer to another high court but these may not create credible deterrence as has happened in Justice Karnan case.
- **Disrepute to judiciary** – because of flouting all norms of judicial conduct and challenging the highest court openly. Thus, affecting trust and image of the institution
- **Mockery of democracy and rule of law** – by his continuance as judge for so long after indisciplinary behavior.
- **Fairness of courts** – Justice Karnan was not given opportunity to represent in the contempt proceedings.
- **Judiciary removing itself** – Contempt of court ruling may amount to removing him as a judge, thus, amounting to judicially-ordered "impeachment"
- **Freedom of expression** - Stopping media from publishing any statements by him , is unreasonable from the point of view of freedom of speech and expression, which the courts should not have resorted to maintain their stand , otherwise on freedom of speech.

Way forward

- **Authority outside judiciary to take disciplinary actions –** This is one solution being discussed. However, it has several shortcomings
  - potential threat to judicial independence
  - may inject fear in judges while taking any decision that it may annoy powers as seen during the time of emergency
  - design of constitution has been to ensure absolute judicial independence, with no scope for Parliament or the executive interference in judicial conduct or decisions

Thus, following actions may be taken

- **Appointment-** the collegium should take adequate safeguards so that only judges of high caliber and impeccable integrity are appointed to the higher courts. This requires infusion of **greater transparency** in the selection of judges.
- **Greater Internal regulation-** in Justice Karnan case, there were several instances where the Judge behaved inappropriately, disciplinary actions should have been taken promptly at very first instance of such misconduct. For this, a **National Judicial Oversight Committee** should be created by parliament which shall develop its own procedures to scrutinizing the complaints and investigation. The composition of such committee should not affect judicial independence.

2. INTERNATIONAL/INDIA AND WORLD

2.1. INDIA-PAKISTAN

Why in news?

The International Court of Justice (ICJ) stayed the execution of Kulbhushan Jadhav, who was sentenced to death by a Pakistan military court on the charge of spying, till its final decision.

- The Court said that India should have been granted consular access to Kulbhushan Jadhav as per the Vienna Convention.
- Pakistan should now inform the court about the steps it takes to implement the order.
- The ICJ judges are clear that these provisional measures are binding and create international legal obligations for the country to which they are addressed.

Background of Kulbushan Jadhav's case

Kulbushan Jadhav was allegedly arrested in the Chaman area of Balochistan on the Pakistan-Afghanistan border on March 3, 2016.

- India denied that he had any links to its government but said that he was running a business in the Iranian port city of Chabahar after a "premature retirement" from the Navy.
- India believed that Kulbhushan Jadhav was kidnapped from Iran and his subsequent presence in Pakistan has never been explained credibly.
- Kulbhushan Jadhav was **sentenced to death** in a **Field General Court Martial on April 10, 2017** after three-and-a-half months of trial after he was found guilty on charges of espionage.

India Approach to the International Court of Justice (ICJ)

- India had dragged Pakistan to **the International Court of Justice (ICJ)** on May 8, 2017 for refusing consular access to Jadhav and for **violating the Vienna Convention on consular relations**.
- India accused Pakistan of violating the Vienna Convention and conducting a "farcical trial" for convicting Jadhav without a "shred of evidence".

India's argument at ICJ:

Following are the main arguments made by India in the Kulbhushan Jadhav case at the International Court of Justice on May 15, 2017.

- Kulbhushan Jadhav has not got the right to get proper legal assistance and the right to consular access.
- The execution of the death sentence cannot be done while this court is hearing the appeal. Else, it will be a violation of the **Vienna Convention**.
- Jadhav was kidnapped from Iran where he was involved in business activities after retiring from the Indian Navy.

Pakistan's argument at the ICJ

At the May 15 hearing convened by the International Court of Justice (ICJ), Pakistan identified three problems with India's request and called for its dismissal.

- There is no **"urgency"** in this case as the date on which Jadhav will be executed has not yet been fixed;
- The ultimate relief sought by India, that is, a "reversal" of Jadhav's conviction, is unavailable; and
- The court **lacks jurisdiction**.
- Also, Pakistan argued that Vienna Convention provisions not intended to apply to a 'spy' involved in terror activities.

Analysis

India has achieved its immediate objective in approaching the ICJ, which has outlined provisional measures that enjoin Pakistan to take all steps needed to ensure that Mr. Jadhav is not executed pending adjudication of the matter.

- It may appear to be a complete victory for India on the questions of **jurisdiction, urgency and the core charge that Pakistan violated the Vienna Convention.** However, this is a preliminary ruling and all issues are open for adjudication at the final stage.

- As an immediate consequence, Pakistan is now under an obligation to grant consular access to Mr. Jadhav.
- India will have to leverage the moral and diplomatic advantage it has obtained through this ruling to help Mr. Jadhav prove his innocence before a civilian court and win his freedom.

Feature	International Court of Justice (ICJ)	International Criminal Court (ICC)
Year Court Established	1946	2002
UN-Relationship	Official court of the U.N., commonly referred to as the "World Court."	Independent. May receive case referrals from the UN Security Council. Can initiate prosecutions without UN action or referral.
Location	Peace Palace , The Hague, The Netherlands	The Hague, The Netherlands
Jurisdiction	U.N. member-states (i.e. national governments)	Individuals
Types of Cases	(1) Contentious between parties, (2) Advisory opinions	Criminal prosecution of individuals
Subject Matter	Sovereignty, boundary disputes, maritime disputes, trade, natural resources, human rights, treaty violations, treaty interpretation, and more.	Genocide, crimes against humanity, war crimes, crimes of aggression
Authorizing Legal Mechanism	States that ratify the U.N. Charter become parties to the ICJ Statute under Article 93. Non-UN member states can also become parties to the ICJ by ratifying the ICJ Statute. Each state must provide consent to any contentious case by explicit agreement, declaration, or treaty clause.	Rome Statute (**India** has not signed the **Rome Statute)**
Appeals	None. The ICJ decision in a contentious case is binding upon the parties. If a State fails to comply with the judgment, the issue may be taken to the UN Security Council, which has the authority to review, recommend, and decide upon enforcement.	Appeals Chamber. Article 80 of the Rome Statute allows retention of an acquitted defendant pending appeal.

2.2. INDIA-SRI LANKA

Why in news?

Prime Minister Narendra Modi visited Sri Lanka to participate in the UN Vesak Day celebrations in Colombo.

Highlights of the visit

- Prime minister said that the **themes of social justice and sustainable world peace**, chosen for the Vesak day, resonate deeply with Buddha's teachings.
- He inaugurated the Dickoya Hospital that has been built with Indian's assistance.
- He hailed the spirit of Indian-origin Tamils in Sri Lanka and announced the construction of additional 10,000 houses in upcountry areas and the extension of the emergency ambulance service.

What is Vesak?

Vesak (Sinhalese), Vesākha (Pāli), Vaisākha (Sanskrit) is the name used for the 2nd month in Sri Lankan traditional Moon calendar (Lunar calendar) which corresponds with the month of May in the Gregorian calendar (Solar calendar).

- It was on the full moon day in the month of Vesak, Prince Siddharta was born, became enlightened and attained Mahaparinibbāna.
- Vesak is associated with three important locations of Buddhist history – Lumbini in Nepal, the birth place of Prince Siddharta, Bodh Gaya (Buddha Gaya) Bihar State in India where The Buddha attained the most exalted Enlightenment under a Bodhi Tree and Kushinagar (Kusinara) in Uttar Pradesh, India where The Buddha attained Mahaparinibbāna.

United Nations International Day of Vesak

International Day of Vesak is a National holiday declared by the United Nations in 1999. The proposal was tabled by Sri Lanka.

In 2017, United Nations International Day of Vesak was hosted by Sri Lanka under the theme **"Buddhist Teachings for Social Justice and Sustainable World Peace".**

2.3. INDIA-PALESTINE

Why in news?

Palestinian President Mahmoud Abbas visited India recently.

Highlights of the visit

- India and Palestine signed five memorandums of understanding. List of MoUs inked during the visit of President Abbas include:
  - ✓ MoU on Visa Exemption on Diplomatic and official Passports
  - ✓ MoU on Cooperation in Youth Affairs and Sports
  - ✓ MoU on Agricultural Cooperation
  - ✓ MoU on Cooperation in Health Sector
  - ✓ MoU on Information-Technology and Electronics
- **"Political Support" to the Palestinian cause:**
  - ✓ India reaffirmed its support for a political solution to the Palestine issue.
  - ✓ Prime Minister said that India hope to see a sovereign, independent, united and viable Palestine, co-existing peacefully with Israel.
- **Peace talks between Palestine and Israel.**
  - ✓ India hopes for early resumption of talks between Palestinian and Israeli sides to move towards finding a comprehensive resolution.
- **Capacity building in Palestine**
  - ✓ India has been contributing to material & technical assistance to Palestine. India has been building a techno Park in Ramallah at the cost of $12 million.
- Both the countries also called for enhancing cultural exchanges between the two sides. India has sought Palestine's participation in the International Yoga Day to be observed next month.
- The Palestinian President also condemned terrorism in all its forms and manifestations and called for regional and international efforts to fight the menace.

Background

India and Palestine enjoy historically close and friendly ties.

- In 1947, India voted against the partition of Palestine at the United Nations General Assembly.
- India was the first Non-Arab State to recognize Palestine Liberation Organisation (PLO) as sole and legitimate representative of the Palestinian people in 1974. India was one of the first countries to recognize the State of Palestine in 1988.
- In 1996, India opened its Representative Office to the Palestine Authority in Gaza, which later was shifted to Ramallah in 2003.

2.4. INDIA AND EU

2.4.1. INDIA AND SPAIN

Why in news?

Prime Minister recently paid official visit to Spain. The visit of Prime Minister is the first visit by an Indian Prime Minister to Spain in nearly 30 years.

Following are the list of MoUs/Agreements:
- Agreement for Transfer of Sentenced Persons.
- MOU on Cooperation in organ transplantation between India's Directorate General of Health Services and the National Transplant Organization of Spain.
- MoU on Cooperation in Cyber Security.
- MoU on Cooperation in Renewable Energy.
- MoU on Technical Cooperation in Civil Aviation.
- Agreement on visa waiver for holders of diplomatic passports.
- MoU between Foreign Service Institute and Diplomatic Academy of Spain

India –Spain relation:

- Spain is India's seventh largest trading partner in the European Union. Two-way trade totaled USD 5.27 billion in 2016.
- Spain is the 12th largest investor in India.

2.4.2. INDIA AND NETHERLANDS

Why in news?

Recently the foundation stone to mark the beginning of work on cleaning the Barapullah drain in New Delhi through Dutch collaboration was laid.

About the project

- The project **Local Treatment of Urban Sewage Streams for Healthy Reuse (LOTUS HR)** is an Indo-Netherlands joint project funded by Department of Biotechnology (DBT), Govt of india and The Govt of Netherlands.
- The project has stakeholders from both Academia and Industry from India and Netherlands.
- Special attention will be paid to pathogen removal and removing conventional and emerging pollutants.

2.4.3. INDIA AND GERMANY

Why in news?

Prime Minister Narendra Modi paid official visit to Germany. The Prime Minister and Ms. Merkel held the **fourth round of the inter-Governmental Consultations (IGC)** to set a road map for the bilateral strategic ties.

Background

- **NSG membership:** Germany has supported India's membership bid in the Nuclear Suppliers Group.
- **UNSC reforms:**
    - ✓ The two Leaders commended the steadfast efforts of the **G-4** and other reform oriented countries and groups in moving forward the discussions towards initiation of text-based negotiations on the Security Council reform agenda at the ongoing **Inter-governmental Negotiations (IGN)** at the UN.

> The agreements signed include nine joint intent of declaration and three memorandum of understanding:
> - JDI on cooperation in the field of **digitalization, empowerment and economic impact.**
> - Agreement on collaboration on training of Indian skill development officers and cluster managers.
> - JDI for the establishment of a Indo-German Centre for Sustainability.
> - JDI on cooperation on cyber policy.
> - JDI on continuation of cooperation in the field of advanced training of corporate and junior executives from India.
> - JDI on Indo-German Development Cooperation between the Ministry of Finance and BMZ (Federal Ministry for Economic Cooperation and Development).
> - JDI on cooperation in vocational education and skill development for machine tools.
> - Agreement on cooperation in health sector.
> - Cooperation in alternative medicine between the AYUSH and BMG (Federal Ministry of Health).
> - JDI on collaboration between Foreign Service institutes between the Ministry of External Affairs and the German Foreign Office.
> - JDI on cooperation in railway safety.
> - JDI on cooperation for sustainable urban development.

  - ✓ Both countries reiterated their full support to each other's candidatures for a permanent seat in a reformed and expanded UN Security Council.
- **Strategic cooperation:**
    - ✓ India and Germany are committed to close coordination, bilaterally and with partners, in the G20, the United Nations and other multilateral fora, to address existing and emerging challenges to international security, global economic stability and growth.

- **Terrorism**
  - ✓ India and Germany together has also vowed to counter the challenges posed by those who encourage, support and finance terrorism. They also called for the earlier adoption of Comprehensive Convention on International Terrorism.

Importance of Germany for India

Germany is the 4th largest economy in the world with a GDP of US $ 3.5 trillion and contributes about 20 percent of the European Union budget.

- Germany, **India's largest trading partner in the EU**, is also an important interlocutor as the India-EU discussions on a Free Trade Agreement are nearing the finish line.
- Germany is currently also one

> **Deadlock in Broad-based Trade and Investment Agreement (BTIA)**
>
> The BTIA negotiations have remained deadlocked over growing differences regarding greater market access sought by both sides for merchandise exports.
>
> **EU's main Demands**
> - EU has been keen on reducing or abolishing tariffs in several sectors, including in the automobile and wine and spirits sectors
> - India's import duty on cars are between 60 and 120 per cent as against the EU's 10 per cent.
> - The EU is keen that India should adopt stringent IP protection standards even if that means going beyond the WTO specified standards.
> - The problem of India's model BIT : India's new model bilateral investment treaty (BIT) is another major contentious issue, especially for foreign investment. Given the experiences of major European companies such as Vodafone and Cairn, who are battling the imposition of retrospective taxes by India, the EU is deeply concerned about the protection of its investments in India.
> - **India's main demands**
> - India's main demands include data security status (crucial for India's information technology sector to do more business with the EU firms), easier temporary movement of skilled professionals and seamless intra corporate movement.
> - The EU should do away with their non-tariff barriers that seem to have been erected mainly to protect some of their local firms but not as much for better safety or quality.
> - India has also sought agricultural market access in the EU as well as disciplining of Sanitary and Phytosanitary (norms related with plants and animals) and Technical Barriers to Trade.

of the **leading foreign direct investors in India**, with around 1,800 German companies operating in India.

- India and Germany have been **strategic partners** since 2000.
- Germany and India are exploring joint projects for **connectivity and development in Africa and the Indian Ocean Region (IOR)** and will also discuss the "common questions" both countries share about China's Belt and Road Initiative
- The people of both nations have displayed that desires of both governments is to develop **'middle power cooperation.**
- India has ambitious programmes in **renewable energy**. In this area, India and Germany have a bright future.

2.5. INDIA-AFRICA

2.5.1. 2ND ANNUAL MEETING OF AFRICAN DEVELOPMENT BANK (AFDB)-2017

Why in news?

Recently the 52nd Annual Meetings of the African Development bank was held in Gandhinagar, Gujarat.

About the meeting

- This was the first time that the Annual Meetings of AfDB were being held in India.
- Reflecting the significance of agriculture in Africa and in the Bank's development work, the 2017 Annual Meetings was held on the **theme: "Transforming Agriculture for Wealth Creation in Africa."**

About AfDB

- The African Development Bank Group (AfDB) or Banque Africaine de Developppment (BAD) is a **multilateral development finance institution**.

- It was founded in 1964 and comprises three entities: The African Development Bank, the African Development Fund and the Nigeria Trust Fund.
- Its **mission is to fight poverty and improve living conditions** on the continent through promoting the investment of public and private capital in projects and programs that are likely to contribute to the economic and social development of the region.
- The meeting in Gandhinagar is the fourth time that the Annual Meetings of AfDB are being held outside Africa. The next meeting of AfDB is scheduled to be held in Busan, South Korea in 2018.
- India joined the African Development Bank (AfDB) in 1983. It is a non-regional member of the Bank.

Importance of meeting for India

- It is seen as a **logical follow-up to the India-Africa Forum Summit** in New Delhi in 2015.
- After India's boycott of China's Belt and Road forum, there will be a keenness to understand the government's approach to its own connectivity, infrastructure and developmental projects, particularly in geographies where it competes with Beijing.

India –Africa relation

- Trade between Africa and India has multiplied in the last 15 years. It has doubled in the last five years to reach nearly $72 billion in 2014-15.
- India is the fifth largest country investing in the continent, with investments over the past 26 years amounting to $54 billion.
- 152 lines of credit have been extended by the Exim Bank of India to 44 countries for a total amount of nearly $8 billion.
- India had offered $10 billion for development projects over the next five years and a grant assistance of $600 million at the last India-Africa summit in 2015.
- Africa is crucial to the India-fostered International Solar Alliance (ISA). Over a dozen of the ISA's 24 members are from Africa, the continental powerhouse of solar energy.

2.5.2. ASIA-AFRICA GROWTH CORRIDOR

Why in news?

A vision document on the Asia-Africa Growth Corridor (AAGC) was released at Africa development bank submit by India in partnership with Japan.

About the corridor

- **The vision document was prepared jointly by Indian and Japanese think tanks**, i.e. Research and Information Systems for Developing Countries (RIS), Economic Research Institute for ASEAN and East Asia (ERIA), and Institute for Development Economics - Japan External Trade Organisation (IDE-JETRO), in consultation with other think tanks in Asia and Africa.
- **The main objective of the corridor is to enhance growth and connectivity between Asia and Africa**.
- The corridor **will focus on four areas**: Development Cooperation Projects, Quality Infrastructure and Institutional Connectivity, Enhancing Skills, and People-to-People Partnership.
- Agriculture, health, technology, and disaster management have been identified as the main areas of development cooperation.

2.6. SOUTH ASIA SATELLITE

First South Asian satellite (GSAT-9), funded entirely by India, has been launched recently by ISRO. With this, India has placed itself uniquely in space diplomacy by giving a boost to neighborhood first policy.

Importance of space diplomacy for India

- **Peaceful and prosperous neighborhood** – This launch has given strong signal about India's neighborhood policy paving the way for sustained collaboration.
- **Space revenue** – There is lot of scope for space revenue for India due to its launch capabilities as well as many countries including Indonesia, Kazakhstan etc. seek to cooperate with India's ISRO in space matters.

- **Reducing rising Chinese influence in space** – China has been using space as a potent tool for diplomacy through establishment of Asia-Pacific space cooperation by China along with Pakistan, Bangladesh and other countries, setting up space academy in Sri Lanka etc.
- **Keeping pace in global space race** – With more than 60 countries trying their hands in space missions, majority of countries being Asian, India has rightly seen collaboration in space as one of the major determinants of foreign policy in future
- **Cooperation for social problems** – India has emerged as a leader in societal applications of space technology and thus we can cooperate in the area of capacity building of other countries on integrating space to solve problems of land, water, forests, crop etc.

> **About South Asia satellite**
> - It is 2,230kg geosynchronous communications and meteorology satellite, launched as a gift for South Asian countries.
> - Its benefits include mapping natural resources, telemedicine, IT connectivity, DTH connectivity, more predictable weather forecasting and quick response to natural disasters.
> - All the SAARC countries excluding Pakistan are part of this project. Thus it is named as South Asia Satellite and not "SAARC Satellite"
> - Other important points:
>   - first Indian satellite to use an electric propulsion
>   - 4th consecutive success of GSLV cryogenic upper stage indicating better future capability.

2.7. UN-HABITAT

Why in news?

India has been unanimously elected as the president of the UN-Habitat, an organ of the United Nations promoting sustainable human settlements across the globe.

- On behalf of India, Housing and Urban Poverty Alleviation Minister will preside over the deliberations of the 58-member Governing Council (GC) of the UN-Habitat for the next two years.
- Since the UN-Habitat came into being in 1978, it is the third time that India has been elected to lead this organisation after 2007 and 1988.

About UN Habitat

The United Nations Human Settlements Programme (UN–Habitat) is the United Nations agency for human settlements and sustainable urban development.

- It was established in 1978 as an outcome of the First UN Conference on Human Settlements and Sustainable Urban Development (Habitat I) held in Vancouver, Canada in 1976.
- UN-Habitat maintains its headquarters at the United Nations Office **at Nairobi, Kenya.**
- It is mandated by the United Nations General Assembly to promote socially and environmentally sustainable towns and cities with the goal of providing adequate shelter for all.
- It is a member of the United Nations Development Group.
- The mandate of UN-Habitat derives from the Habitat Agenda, adopted by the United Nations Conference on Human Settlements (Habitat II) in Istanbul, Turkey, in 1996.

2.8. ONE BELT ONE ROAD (OBOR) SUMMIT

China organized a grand two-day OBOR summit to showcase its plans to build a network of trade routes-One Belt, One Road (OBOR)-that will connect Asia, Africa, the Middle East and Europe.

- The One Belt, One Road or the Belt and Road Initiative (BRI) forum in Beijing was attended by 29 heads of state or government and by official delegations from some 100 countries.
- All of India's neighbours, except Bhutan, sent high-level delegations for the summit.
- China has positioned the One Belt One Road (OBOR) as a project of immense economic sense to the world and a 'project of the century'.

India's objection to OBOR

India has stayed away from the Belt and Road Initiative (BRI) summit, making its concerns public.

- One, the B&RI's flagship project is the China-Pakistan Economic Corridor, which includes projects in the Gilgit-Baltistan region, ignoring India's "sovereignty and territorial integrity".
- India claims that China has not only been insensitive to its sovereignty, but has never fully explained its plan for the Belt and Road (formerly called One Belt One Road) initiative. There is a lack of transparency in China's agenda, indicating that New Delhi believes the B&RI is not just an economic project but one that China is promoting for political control.
- Two, the B&RI infrastructure project structure smacks of Chinese neo-colonialism. The projects could push smaller countries on the road into a crushing debt cycle, destroy the ecology and disrupt local communities.

Analysis

India's decision to skip the meeting came after a year of bilateral discord over China's stubborn opposition to India's entry into the NSG and a UN ban against Pakistan-based terrorist group Jaish-e-Muhammad leader Masood Azhar.

- The decision to not attend even as an observer, however, effectively closes the door for diplomacy. It stands in contrast to countries such as the U.S. and Japan, which are not a part of the B&RI but sent official delegations.
- There have been arguments within India that, by boycotting the Beijing meet, India was denying itself unending benefits of something as big as OBOR.
- India may also face some difficult choices in the road ahead, because as a co-founder of the **Asian Infrastructure Investment Bank** and as a member of the **Shanghai Cooperation Organisation (from June 2017)** it will be asked to support many of the projects under the B&RI.
- Given the **endorsement from the UN Secretary General**, who said the B&RI is rooted in a shared vision for global development, India should not simply sit out the project.

Way forward

India must actively engage with China to have its particular grievances addressed, articulate its concerns to other partner countries in a more productive manner, and take a position as an Asian leader, not an outlier in the quest for more connectivity.

2.9. GLOBAL PLATFORM FOR DISASTER RISK REDUCTION (GPDRR)

Why in news?

The 2017 Global Platform for Disaster Risk Reduction (GPDRR) summit was held in Cancun, Mexico from May 22-26, 2017.

About the platform

- The Global Platform is the most **important international forum dedicated to the disaster risk reduction agenda.**
- The summit marked the first opportunity since 2015 to review global progress in the implementation of Sendai Framework for Disaster Risk Reduction (SFDRR) 2015-2030 which was adopted at the **3rd UN World Conference on Disaster Risk Reduction** held in March, 2015 in Sendai, Japan.
- The Global Platform for Disaster Risk Reduction is **a biennial forum for information exchange**, discussion of latest developments, knowledge and partnership-building across sectors, with the goal of improving implementation of disaster risk reduction through better communication and coordination amongst stakeholders.
- Its core function is to enable governments, NGOs, scientists, practitioners, and UN organizations to share experience and formulate strategic guidance for the implementation of global disaster risk reduction agreements: the 2005 Hyogo Framework for Action and its post-2015 successor the Sendai Framework.

- It is a 15-year non-binding agreement
- It says that state has the primary role to reduce disaster risk but that responsibility should be shared with other stakeholders including local government and the private sector.
- It is improved version of the existing Hyogo Framework.

Aim- The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.

The Sendai Framework Priorities:

1. Understanding disaster risk;
2. Strengthening disaster risk governance to manage disaster risk;
3. Investing in disaster risk reduction for resilience;
4. Enhancing disaster preparedness for effective response, and to "Build Back Better" in recovery, rehabilitation and reconstruction.

Sendai Framework's seven global targets

1. Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortalities between 2020-2030 compared to 2005-2015;
2. Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 between 2020-2030 compared to 2005-2015;
3. Reduce direct disaster economic loss in relation to global gross domestic product by 2030;
4. Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030;
5. Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020;
6. Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of the framework by 2030;
7. Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030.

2.10. ARCTIC COUNCIL

Why in news?

Meeting of Arctic council will be held in Alaska to discuss the concerns associated with USA's decision to engage in drilling for oil in the region.

About the council

- The Arctic Council is an **advisory body** that promotes cooperation among member nations and indigenous groups.
- **Its focus is on sustainable development and environmental protection of the Arctic**.
- It does not make policy or allocate resources, and its decisions must be unanimous.
- It consists of the eight **Arctic** States: Canada, the Kingdom of Denmark (including Greenland and the Faroe Islands), Finland, Iceland, Norway, Russia, Sweden and the United States.

2.11. INDIA-PACIFIC ISLANDS SUSTAINABLE DEVELOPMENT CONFERENCE

Why in news?

Recently a conference on sustainable development between India and Pacific islands was hosted by Ministry of External Affairs**.**

About the conference

- The conference is being held **under the framework of the Forum for India Pacific Islands Co-operation (FIPIC),** with The Energy and Resources Institute (TERI) as its key knowledge partner.
- It will focus on issues such as the blue economy, adaptation-mitigation practices for climate change, disaster preparedness, health, the International Solar Alliance as well as finding practical solutions to Nationally Determined Contributions (NDC) implementation.

- It will facilitate the exchange of knowledge and experience, and initiate public-private partnerships and collaborations for the benefit of all participating countries.

About FIPIC

- FIPIC was formed in November 2014, to strengthen India's relationship with the Pacific Island Countries.
- The first FIPIC summit was held at the level of Heads of Government in November 2014 in Suva, Fiji, followed by the FIPIC-II summit held in August 2015, in Jaipur, India.

2.12. RECENT MILITARY EXERCISES

- **SIMBEX** - It is an annual bilateral naval exercise conducted by the Indian Navy and the Republic of Singapore Navy (RSN). India and Singapore conducted **Singapore India Maritime Bilateral Exercise (SIMBEX) in the contentious South China Sea.**
- **CORPAT -** The Indonesian Navy and the Indian Navy have been participating in coordinated patrol (CORPAT) twice a year since 2002 to keep this vital part of the Indian Ocean Region safe and secure for commercial shipping and international trade. The 29th series of India–Indonesia CORPAT has begun at Port Blair under the aegis of Andaman and Nicobar Command.
- **Indo-Thailand/SIAM BHARAT -** This is the second such exercise to be held between the Indian Air Force and the Royal Thailand Air Force. It was **Humanitarian Assistance and Disaster Relief (HADR)** Table Top Exercise 2017 held in Chiang Mai, Thailand. The aim of the bilateral exercise is to **evolve SOPs for planning and executing relief missions** during unforeseen natural calamities like Tsunami, earthquakes, cyclones, floods etc.

3. ECONOMY

3.1. SAMPADA SCHEME

Why in News?

- The government has given its approval for re-structuring the schemes of the Ministry of Food Processing Industries (MoFPI) under **new Central Sector Scheme – SAMPADA (Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters)** for the period 2016-20.

Need

- India ranks number one in total food production globally. Despite the large production of food products in India, post-harvest losses are of major concern.
- India has a less than 10% processing level of the large production base.
- A well -developed Food Processing Industry helps in the reduction of wastage, improving value addition, promoting crop diversification, better return to farmers, promoting employment as well as increasing export earnings.

Background

- During 2015-16, the food processing sector constituted as much as 9.1 and 8.6 per cent of GVA in Manufacturing and Agriculture sector respectively.
- The government has allowed **100% FDI (automatic route) in trading including through e-commerce**, in respect of food products manufactured and/or produced in India.
- The government has set up a **Special Fund of Rs. 2000 crores** in NABARD to give affordable credit at concessional rate of interest to designated food parks and agro processing units.
- Food and agro–based processing units and cold chain infrastructure have been brought under the ambit of Priority Sector Lending (PSL).

Provisions

- The **objective of the scheme** is to supplement agriculture, modernize processing and decrease agri-waste.
- **It is an umbrella scheme** incorporating ongoing schemes of the Ministry of Food Processing -
  o Earlier schemes like Mega Food Parks, Integrated Cold Chain and Value Addition Infrastructure, Food Safety and Quality Assurance Infrastructure, etc.
  o New schemes like Infrastructure for Agro-processing Clusters, Creation of Backward and Forward Linkages, Creation of Food Processing & Preservation Capacities.

> **Draft National Food Processing Policy 2017**
> - It advocates adoption of **sustainable environmental practices** like energy generation from bio waste
> - For Quality, health and safety of products, the policy suggests compliance with FSSAI Act 2006 and **introduces self-regulation.**
> - **Administrative issues** –
>   o Each state should set up an **independent Department** to handle all matters related to food processing.
>   o States should **create an e-platform**, to facilitate all necessary clearances in a time bound manner.
> - **Infrastructure Development** –
>   o The policy recommends following a cluster approach to tap the benefits of economies of scale in food processing.
>   o States should register in the eNAM platform to promote direct procurement of all raw materials, especially horticulture produce.
>   o Ceiling on Land Lease act should be raised or abolished to encourage entrepreneurs procure lands for bigger units.
>   o Land should be allotted on priority to Mega food parks.
>   o Technology adoption like barcoding, RFID tags etc. should be supported.
> - It also **aims to promote entrepreneurship** in this sector by reforming labour laws, promoting incubation centres, setup skilling centres in each state etc.

> **Other Schemes of Food processing Industry**
> - **Mega Food Park Scheme**
>   o It aims to provide modern infrastructure facilities for the food processing with a cluster based approach based on a hub and spokes model.
>   o It includes creation of infrastructure for primary processing and storage near the farm in the form of Primary Processing Centres (PPCs) and Collection Centres (CCs) and common facilities and enabling infrastructure like roads, electricity, water etc. at Central Processing Centre (CPC).
> - **Integrated Cold Chain and Value Addition Infrastructure**
>   o It is a Central Sector scheme.
>   o Financial assistance is given in the form of grant-in-aid upto maximum of Rs. 10 crore per project.

Significance

- Convergence of various schemes would help in **better implementation of the programmes**.
- The scheme would also help in **reducing the post harvest losses**.
- With rise of disposable income, this scheme would help in **fulfilling the demand of processed foods** like edible oils, juices etc.
- Food industry as compared to other industries has the largest number of factories and engages the largest number of employees. This scheme would **boost the employment prospects**.
- Processed foods can also help **address the problem of malnourishment** by increased availability of nutritionally balanced food.

3.2. NATIONAL POLICY ON MARINE FISHERIES 2017

Why in News?

- National Policy on Marine Fisheries was launched recently by the Department of Animal Husbandry, Dairying and Fisheries.

Background

- India is the second largest producer of fish in the world contributing to 5.43% of global fish production.
- India is also a major producer of fish through aquaculture and ranks second in the world after China.
- After Independence, **fish production has been increased from 7.5 lakh tonnes in 1950-51 to 100.70 lakh tonnes during 2014-15.**

> **Branches of fisheries**
>
> 1. **Marine Fisheries –** It is that branch of fisheries which deals primarily with marine fishes and other sea products.
>   - ✓ E.g. Oil sardines, mackerels, Bombay ducks, tunas and the prawns, catfishes, polynomids , pomfrets, crabs, oysters, marine algae
> 2. **Inland fisheries** - Inland fisheries **include both fresh water and brackish water fisheries**. The commercially important fresh water fisher y resources are carps, mullets, chanos, and prawns. Some brackish water fisheries include shrimps.

- Marine Fisheries is the fastest growing food producing sector in the world with a great potential to meet the food, especially protein requirement of a large number of population.
- After 2015 report of B. Meenakumari on deep sea fishing, the government had decided to revise the existing Marine Fisheries policy of 2004.

About the Policy

- The **aim of the policy** is to ensure the health and ecological integrity of the marine living resources of India's EEZ through sustainable harvests.
- The **overall strategy would be based on seven pillars**, namely sustainable development, socio-economic upliftment of fishers, principle of subsidiarity, partnership, inter-generational equity, gender justice and precautionary approach.
- The policy would be in line with the **FAO's Code of Conduct for Responsible Fisheries** on conservation, development and management of fisheries.
- **Some of the provisions of the policy are -**
  - o **Monitoring, Control and surveillance** (to prevent accidents and trespassing)
    - ✓ For better monitoring and surveillance, chip-based smart registration cards for fishermen and their fishing vessels would be introduced.
    - ✓ Training and awareness would be given to fishermen to avoid crossing the International marine boundary line (IMBL).
  - o **Integrated approach on fisheries management –**
    - ✓ **Species-specific and area-specific** management plans with **spatial and temporal measures** for sustainable utilization of resources.
    - ✓ Consevation of Ecologically and Biologically Significant Areas (EBSAs) and Vulnerable Marine Ecosystems (VMEs), endangered species etc.
    - ✓ It would **blend traditional knowledge and scientific business principles**.
    - ✓ Use of Information technology and space technology for improving the capacities of the fishing community. E.g. Using these to forecast weather

- ✓ **Traditional Use Rights for Fisheries** (areas where mechanized fishing is prohibited and small scale fishers are allowed) would be continued.
  - ✓ Government would also introduce schemes to skill traditional fishers.
  - o **Commercializing Fisheries –**
    - ✓ **Fisheries Data and Research -** Government would implement a **National Marine Fisheries Data Acquisition Plan** with all stakeholders.
    - ✓ **Mariculture -** Government will encourage schemes to set up mariculture farms/parks and setting up of hatcheries for supply of seed for development of the sector. There would also be a focus on preventing post-harvest losses.
    - ✓ **Island Fisheries –** India's islands would be exploited for the lucrative and commercial value fisheries like Tuna, snapper, groupers etc. Krill fishing would also be promoted in Areas Beyond National Jurisdiction (ABNJ).
    - ✓ **Fisheries Trade –** Government would focus on diversifying trade market, harmonizing FSSAI standards with international bodies, reducing the influence of middlemen and ecolabelling of fishes.
    - ✓ Entrepreneurship development, private investment, public private partnership for marine fisheries sector will be encouraged.
    - ✓ Government with the help of NABARD will provide institutional credit to the fishers.
  - o **Marine environment and Fisheries -**
    - ✓ Review and periodically evaluate existing marine protected areas (MPAs)
    - ✓ It would provide **legislative support to ensure tenure rights of traditional fishermen** so that their livelihood is not affected by conservation measures.

Significance

- Monitoring and surveillance will ensure that Indian fishing fleet do not engage in **'Illegal, Unreported and Unregulated' (IUU) fishing.**
- **Women SHGs** would be promoted in the women dominated post harvest sector of fisheries.
- The policy if well implemented would **promote SDG Goal 14** of conserving and sustainably using Oceans, Seas and Marine resources for Sustainable development.
- It would also help in **boosting the primary sector** of our economy and improve its growth rate.

> **B Meenakumari Committee on deep sea fishing**
>
> - Allow fishing in the EEZ - between 22 km and 370 km beyond territorial waters – for vessels with a length of 15 metres or more by getting a "letter of permission" from the Centre.
> - These ships can be owned or acquired by Indian entrepreneurs or by joint ventures with up to 49 per cent foreign investment.
> - **Create a buffer zone between the near-shore and offshore regions** (waters between 200 m and 500 m in depth) along the coast and regulate fishing there "in order to augment resources in the near-shore areas as well as the deep-sea regions in the EEZ".

Challenges

- The policy recommends rescinding Letter of Permit scheme thus allowing private investments in deep sea fishing (as recommended by B. Meenakumari committee). This may threaten the small scale and traditional fishers community.
- Some State recommendations like a separate Ministry of Fisheries, extending the territorial limit of States etc. have not been taken up in the policy.

Way forward

- Recently the government has formulated an umbrella scheme **'Blue Revolution: Integrated Development and Management of Fisheries'** by merging all the existing schemes. This umbrella scheme will cover inland fisheries, aquaculture and marine fisheries including deep sea fishing, mari-culture and all activities undertaken by the National Fisheries Development Board (NFDB).
- The government should make this policy in tandem with the scheme to promote Blue revolution in the country.

3.3. COMMERCIALISATION OF GM MUSTARD

Why in news?

- Genetic Engineering Appraisal Committee (GEAC) gave a positive recommendation for the commercial use of GM mustard for 4 years subject to certain field conditions.

Background

- India, so far, has permitted only GM cotton, a non-food crop. NITI Aayog recently, in its three-year draft action plan had backed GM food crops also.
- India spends about $12 billion on imported edible oil which is bound to increase with the increase in population and per capita income.

> **About GEAC**
> - It is a statutory body under MoEFCC.
> - It is the apex body for approval of proposals relating to release of genetically engineered organisms and products into the environment.
> - The GEAC considers proposals for trial only after approval from the RCGM (Review Committee on Genetic Manipulation - a body comprising scientists) under Dept. of Biotechnology.

- In 2010, the GEAC had also approved the commercialization of Bt brinjal. However, the then environment minister declined to sign off on the proposal due to strong protests. As of now, there is a case pending before the Supreme Court.

Arguments in favour of GM mustard

- **Superior crops** - they generate better yields and are resistant to pests and diseases. They are needed in future to address threats from climate change.
- **Biotechnology advancement** - GM crops is central to push for investment and growth in the biotechnology sector.
- **Swadeshi GM** - GM mustard, unlike Monsanto's Bt cotton, has been indigenously developed in the public sector by Delhi University-based Centre for Genetic Manipulation of Crop Plants.
- **GM oil imported -** India imports thousands of tons of GM edible oil (and other GM food items) every year with no evidence of health effects or deaths due to genetic alterations.

Arguments against GM mustard

Sarson Satyagraha, a broad platform of hundreds of organisations representing farmers, consumers, scientists and others, and other such organizations have raised following concerns:

- **Risks involved** - GEAC has shown unscientific attitude with regard to citizens' health and environment and have failed in their very mandate to protect citizens from risks of GMOs and no knowledge of whether GEAC consists of any agricultural experts and representative of farmers
- **Impact on food chain** - Use of GM mustard will increase chemicals in our food and farms.
- **Loss in employment** - Even 25% adoption of GM mustard will lead to loss of more than 4 crore employment days by poor women in mustard growing areas
- **Lack of transparency** - There is still opacity, i.e., there is no public data on effects of GM on human health, food chain, allied sectors (beekeepers, orchards and ayurvedic medicine makers and practitioners) etc.
- **No indigenization** - It is not "Swadeshi GM" as the genes used are the property of multinationals, which want to have control on seeds.
- **Monopoly and yield loss** - It would cause yield losses for farmers will be forced to buy seeds every season than using farm-saved seeds, affecting their sovereignty, crop diversity and profitability.

Way forward

- **Consultation with state governments** on the issue given that agriculture is a state subject.
- **Grievance redressal of all stakeholders** - all the grievances of farmers and the public must be resolved before allowing GM mustard by putting the safety documents online and addressing the concerns in all comments received.
- **Legal measure** - There should be a liability clause, that is, if something goes wrong the liability should be fixed statutorily like in case of US law, liability is huge in case the GM tech effects the regular varieties of crops. It will ensure that case of non-accountability, in case of pink bollworm pest attack on BT cotton, does not repeat itself in case of other GM crops.

3.4. CANOLA VILLAGES

Why in News?

- Ludhiana-based Punjab Agricultural University (PAU) is pushing farmers to adopt canola farming by developing **"canola villages"** in niche areas to produce and sell the oil.
- Canola villages would have production of canola crop along with extraction of canola oil through oil extraction units located within the village itself.

> **Yellow Revolution**
> It is a phenomenon of exponential growth of **oilseeds cultivation**. India has been experiencing a Yellow Revolution implicitly because it has shifted from being a 'net importer' in the 1990s to a 'net exporter' of oilseeds as of now.

Need

- India has a high import of oilseeds due to a rising consumption of edible oil among its population. Therefore canola cultivation would be a benefit to decrease dependence of oilseeds imports.
- Canola oil is considered to be one of the healthiest oils for cooking and is the need of the hour in the rising sedentary and unhealthy eating lifestyles.

Background

- 'Canola' quality varieties are commonly developed from two species - **Brassica napus and Brassica campestris**.
  - o It has a relatively shorter duration of crop. It is also a livestock feed and is light cooking oil too.

> Canola is the international trade name for mustard carrying lower levels of erucic acid — less than 2% — in oil and is considered as one of the healthiest options.

- The prevailing agro-ecological condition is favourable for several oilseeds, including **edible** like canola, groundnut, rapeseed-mustard, soybean, sunflower, safflower, sesame and niger and **non-edible oilseeds** like castor and linseed.
- India is the **largest producer of castor and sesame** and second largest producer of groundnut and rapeseed-mustard.

> **Crop Diversification**
> Crop diversification is intended to give a wider choice in the production of a variety of crops in a given area so as to expand production related activities on various crops and also to lessen risk. Crop diversification in India is generally viewed as a shift from traditionally grown less remunerative crops to more remunerative crops.

Significance

- The initiative of producing greater amount of edible oil domestically would reduce the current account deficit problem.
- This initiative would also be a step towards edible oil security for the population in India, considering the fact that edible oil demand is rising at a rate of 3-4% and India is able to meet only 40% of the total edible oil demand domestically.
- Canola cropping would also be a step towards diversification of crops that is badly needed in some areas of the country like Punjab (whose climate is also suitable for canola).
- Canola crops can also lead to halting the reduction of groundwater table that is prevalent due to the presence of water guzzling crops like rice.

Challenges

- In absence of assured market and assured price for their produce from government agencies, farmers have reservations towards growing oilseeds.
- Although canola crop is healthier it might be cost prohibitive as compared to other alternative cheaper oils.
- Canola cropping is also labour intensive especially for weeding during harvest. Mechanized farming as in the case of incumbent crops like wheat in rabi season is not fruitful for the canola crop.

3.5. COIR INDUSTRY

Why in News?

- A severe shortage of water, affecting coconut farms in Tamil Nadu, Kerala and Karnataka has decreased the yield of the coir industry in these parts.

Background

- India accounts for about 66% of the global production of coir and coir products.
- **Kerala** accounts for majority of coir industry in India. The geographical location of the coir industry is dependent on the availability of raw material (Coconut) available in states like Karnataka, Kerala, Tamil Nadu, Andhra Pradesh and Odisha.

Basic facts on coir industry

- Coir is a fibrous mass extracted out from the coconut husk.
- It is an important cottage industry.
- Coir Industry in India consists of two distinct segments namely –
  - **White fibre** - It is smother and finer but weaker. It is obtained from immature green coconuts. It is used primarily for rope manufacture.
  - **Brown fibre** – It is obtained by harvesting fully mature brown coconuts. It is stronger and thus used to make objects like brushes, mats etc.
- Coir exports in 2015-16 amounted to about Rs 1900 crore.
- Main export destination of India is USA.
- This industry directly employs about 7 lakh people that are mostly from the rural areas. Women constitute about 70% of the workforce.

Government initiatives

- **Coir Udyami Yojana-** Rejuvenation, Modernization and Technology Upgradation has been renamed as Coir Udyami Yojana.
  - This is a **credited linked subsidy scheme** which provides 40% as Govt. subsidy, 55% as Bank loan and 5% beneficiary contribution for setting up of coir units with project cost up to Rs.10 lakh
  - No collateral security/third party guarantee is required and there is no income ceiling.
  - Assistance is available to individuals, companies, self help groups, NGOs, institutions registered under Societies Registration Act, 1860, co-operative societies, joint liability groups and charitable trusts.
- **Coir Vikas Yojana -**
  - It involves skill upgradation and quality improvement of the products.
  - It also **includes Mahila Coir Yojana** – training for men & women coir workers and providing subsidized ratts to women workers.
  - Its other components are development of production infrastructure, domestic market promotion, export market promotion etc.

Coir Board

- It is a statutory body developed under Coir Industry Act 1953.
- It regulates the production and distribution of coir through registration and licensing.
- It also fixes standards for this industry.
- It is an advisory body to the government for production of coir products.
- It functions under the Ministry of MSME.

Significance of coir industry

- With **increasing awareness of environment-friendly products**, the demand for coir-based items is on the rise in the international and domestic markets.
- **Rise of e-commerce** have led to an increased demand and marketing of mats and mattresses made of coir.

Challenges

- Climate Change and shortages of monsoonal rains can affect the yields of coir industry.
- There is a competition from countries like Indonesia, Vietnam and Sri Lanka that can affect the profit margins of the Indian coir industry.
- Problems of raw materials include poor quality of raw materials and high cost of materials.
- Labour problems include labour absenteeism, low wages, low skills, low labour productivity.
- Other challenges include non-availability of financial credit, problems in marketing of finished goods etc.

3.6. PUSA KRISHI APP

Why in News?

- This app was recently inaugurated in the Krishi Unnati Mela.

About the app

- It has been developed by ICAR's Indian Agricultural Research Institute.
- The Pusa Krishi app gives information about –
  - o The varieties of products available to farmers
  - o Technology that can be used to yield better crops
  - o Information about produce and the region it is best suited for c
  - o Information about animal feed and bio-fertilizers
- There is a feedback section which enables the agricultural scientists to have a real time conversation with the stakeholders.

Krishi Unnati Mela

- It is an annual event conducted by Indian Agricultural Research Institute, Delhi.
- It shares information about new techniques in agriculture and animal husbandry and important central government schemes and programs.

Institutions related to agricultural extension

1. **National Centre for Management of Agricultural Extension (MANAGE) (1987)** –
   - ✓ It is an autonomous institute under Ministry of Agriculture.
   - ✓ It is located in Hyderabad.
   - ✓ It assists the Central and State Governments and other organizations in effective management of their agricultural extension.
2. **Indian Council of Agricultural Research (ICAR)**
   - ✓ It is an autonomous body under Ministry of Agriculture.
   - ✓ Its head is Minister of Agriculture.
   - ✓ It coordinates agricultural education and research in India.

3.7. E-KRISHI SAMVAD

Why in news?

- **Union Agriculture and Farmers Welfare Minister** recently launched **e-Krishi Samvad**, an **online interface for farmers and other stakeholders in the agricultural sector.**

What is it?

- It is an online interface through which farmers and other stakeholders can directly approach **ICAR (Indian Council of Agricultural Research**) with their problems for effective solutions.
- Stakeholders can also upload photographs of crop diseases, animals or fishes for diagnostics and remedial measures instantly from the specialists.
- Appropriate solutions from specialists will be provided via **SMS.**

3.8. MASALA BONDS

Why in news?

- The Union Minister of Road Transport & Highways and Shipping launched the **NHAI Masala Bond (National Highways Authority of India)** issue at the **London Stock Exchange.**

What are masala bonds?

- **Masala bonds are rupee-denominated bonds** issued by **Indian entities in the overaseas market** to raise funds.
- As of now, it is being traded only at the London Stock exchange.
- Masala bonds have been named so by the **International Finance Corporation (IFC)**, an **investment arm of the World Bank** which issued these bonds to raise money for infrastructure projects in India.
- They protect investors from exchange rate fluctuations as opposed to external commercial borrowing (ECB) that have to be raised and repaid in dollar.

3.9. WPI AND IIP BASE YEAR CHANGE

Why in news?

- The **CSO** and the **Department of Industrial Policy and Promotion (DIPP)** has shifted to 2011-12 base year from 2004-05 base year for Index of Industrial Production (IIP) and Wholesale Price Index (WPI) respectively.
- Inflation rate based on the new series of WPI declined to a four-month low of 3.85 per cent in April from 5.70 per cent in March, IIP grew 2.7 per cent in March as against 1.9 per cent a month ago.

Background

- Various macroeconomic indicators measures such as WPI, CPI, IIP, GDP and national accounts measure the health of the economy.
- WPI is primarily used as an indicator to measure inflation. RBI has recently moved to using CPI as a measure of inflation for formulating monetary policy.
- WPI is used as a **deflato**r for many sectors such as for estimating GDP by CSO as well as for calculating IIP.
- WPI and IIP have been revised in line with the recommendations of the **Saumitra Chaudhari Committee** which submitted its report in March 2014.
- A **Technical Review Committee (TRC)** has been constituted for the first time by the CSO in order to review the indexes and recommend appropriate methodological interventions in line with changing economic structure of the country. The TRC is to be chaired by Secretary, DIPP. It shall meet once a year.

What is new?

- Apart from the WPI base year, its basket of goods and their weightage have also been overhauled. 199 new items have been added and 146 items have been dropped in line with the changing demand in the country.
- **Taxes have been left out of WPI** in order to remove the impact of fiscal policy.
- The WPI will now be calculated based geometric mean rather than the earlier of arithmetic mean. CPI is calculated on geometric mean.
- 149 items have been added to the IIP and 124 deleted.

Changes in composition

	IIP old series (Base year: 2004-05)		New series (Base year: 2011-12)	
	Item groups	Weight (%)	Item groups	Weight (%)
Mining	1	14.16	1	14.37
Manufacturing	397	75.53	405	77.63
Electricity	1	10.31	1	8
Total	**399**	**100**	**407**	**100**

	WPI old series (Base year: 2004-05)		New series (Base year: 2011-12)	
Primary articles	102	20.12	117	22.62
Fuel and power	19	14.91	16	13.15
Manufactured items	555	64.97	564	64.23
Total	**676**	**100**	**697**	**100**

Implications

- The change in base year has brought all macroeconomic indicators on the same base making comparison easier. The new base year will provide a more realistic picture.
- Change in WPI basket of goods and weightage has brought it **closer to the CPI** and to changing consumption pattern in the country.
- Removing indirect taxes from WPI will make it a **compatible and appropriate deflator**. It will also bring it closer to **PPI (Production Price Index) and global practices**.
- This is how GVA is calculated (without the taxes) therefore making it **consistent with GVA.**
- Change in the IIP basket would **make it closer to the current production structure**.
- Establishment of TRC will help review the indices on time and make the required changes without delay.

3.10. VOLUNTARY UNEMPLOYMENT

Why in News?

- Recently, NITI Aayog member Bibek Debroy has flagged a **dramatic rise of voluntary unemployment** across the country.

Activity Status

- Activity Status refers to the activity situation in which the individual is found during the reference period with respect to his participation in economic or non-economic activities.

Voluntary Employment

- **NSSO defines following three broad Activity Status -**
  - Working/Employed (engaged in an economic activity)
  - Seeking or available for work i.e. 'Unemployed'
  - Neither seeking nor available for work.

  Labor force/work force is the total number of people employed or seeking employment in a country or region.
- **One is classified as voluntary unemployed**, if he or she is not employed and is not willing to join the workforce. It is mostly because **people choose not to work below a certain income level after 'investing' in education**.

Way forward

- This is an alarming situation because India's demographic dividend is wasted if voluntary unemployment rises to high levels. The levels are rising because the growth of high skilled jobs is disproportionate to the number of job seekers in this section.
- Mostly, the voluntary unemployment is because of the unavailability of job due to inadequate nature of work or inadequate salary. Therefore, the government should create a diversity of jobs for utilizing these voluntary unemployed.

3.11. SHARDA PRASAD COMMITTEE

Why in News?

- Sharada Prasad Committee constituted to review, rationalize and optimize the functioning of Sector Skill Councils (SSCs), has recently submitted its report to the government of India.

Background

- To ensure convergence and optimal functioning of SSCs as per the National Policy for Skill Development and Entrepreneurship 2015, it was decided to constitute a Committee in 2016 to review the functioning of the SSCs and provide a roadmap for their harmonious skilling ecosystem.

Recommendations

- The committee says that SSCs are a 'hotbed of crony capitalism' that has tried to 'extract maximum benefit from public funds.' For Eg. A board member of a SSC also being a promoter of it.
  - It has therefore recommended the Centre to
    - ✓ **Scrap all existing skill councils**, many of which have overlapping roles
    - ✓ Introduce an **oversight mechanism on the NSDC**, preferably from the RBI, as it is registered as a non-banking finance company.

Sector Skill Councils

- Sector Skill Councils (SSCs) are industry led and industry governed bodies which have been mandated to ensure that skill development efforts being made by all the stake holders are in accordance with the actual needs of the industry.
- They develop National Occupational Standards/Competency Standards and Qualification Packs (QPs).
- They have two basic objectives – providing skills and employment.
- National Skill Development Corporation (NSDC) has approved formation of various SSCs in different Sectors.

National Skill Development Corporation (NSDC) (2008)

- It is a **not-for-profit company** set up by the Ministry of Finance, under Section 25 of the Companies Act.
- It has an equity base of Rs.10 crores, of which the Government of India holds 49%, while the private sector has the balance 51%.
- It works under the Ministry of Skill development and Entrepreneurship.
- NSDC is a **Public Private Partnership Company** with the primary mandate of catalyzing the skills landscape in India. It creates vocational training institutions, fund patents and enable support for skill development.

National Skill Development Fund

- It was set up in 2009 by the Government of India for **raising funds both from Government and Non Government sectors** for skill development in the country.
- A **public Trust** set up by the Government of India is the **custodian of the Fund**. Fund is operated and managed by a Board of Trustees. The secretary of the Ministry of Skill is the Chairperson of this Trust.

- ✓ Merge plumbing and construction, handloom and handicraft, telecom and IT & ITeS, automotive and logistics, health care and beauty and wellness sector, and many more SSCs.
- The committee pointed out that there was poor governance in NSDC because it is **100% government-funded but accountable to a board that consists of a majority of private sector industry associations**.
  - o It recommends that Government should review the NSDC's role and functioning comprehensively with reference to its Memorandum of Association.
- The committee has noted that SSC were kept away from Parliamentary oversight, CAG audit, RBI supervision.
- Committee also highlighted the **lacunae in the governance of the National Skill Development Fund (NSDF)**.
- For further recommendations *see image*.

Being Job-ready

The proposal
- A National Vocational Education & Training system
- More synergy between skill development, HRD ministries
- HRD to conduct vocational training at 10+2 level
- Either of the ministries may set up skills institute
- Training to be aligned to international standards

How it will help
- Student may get to opt for vocational studies in higher secondary
- Option to go beyond humanities, science and commerce

Significance

- This committee's recommendations would be useful in increasing the efficacy of the skilling programme being undertaken by the government.
- It would also correct the skill mismatch between the skills being given by the SSCs and those being demanded by the industry. This, in turn, would increase the employment of the youth.

3.12. TECHNOLOGY AND INNOVATION SUPPORT CENTRES TO COME UP

Why in news?

- The **Department of Industrial Policy and Promotion (DIPP)** and **World Intellectual Property Organisation (WIPO)** have joined hands to set up **Technology and Innovation Support Centres (TISC).**

What is it?

- **TISC** programme provides innovators in developing countries access to locally based, high quality technology information and related services, helping them exploit their innovative potential and to create, protect, and manage their intellectual property (IP) rights.
- The **Cell for IPR Promotion and Management (CIPAM),** under the Ministry of Commerce & Industry, has been designated as the national focal point for the TISC network.
- It shall identify potential host institutions, assess their capacities and support them in joining the TISC project.

WIPO
- WIPO is the **global forum for intellectual property services, policy, information and cooperation.**
- It a specialized a self-funding agency of the **United Nations**, with 189 member states.
- It was established in 1967 and is headquartered in Geneva, Switzerland.

CIPAM
- CIPAM is a professional body created under **DIPP (Department of Industrial Policy and Promotion).**
- It has been entrusted with the implementation of the **National IPR Policy 2016.**
- It aims to spread awareness about **IPR (Intellectual Property Rights), promoting the filing of IPRs through facilitation, providing inventors with a platform to commercialize their IP assets.**

3.13. INDIGENOUS NUCLEAR POWER

Why in news?

- Cabinet has recently cleared the proposal to construct 10 indigenous pressurised heavy water nuclear reactors (PHWR) with each having a capacity of 7,00 MWe, to be built by Nuclear Power Corporation of India Ltd (NPCIL). They will more than double the country's current installed nuclear capacity of 6,780 MWe.

About NPCIL
- It is a Public Sector Enterprise under the **Department of Atomic Energy**
- It is registered as a **Public Limited Company** under the Companies Act
- Its main objectives are operating atomic power plants and implementing atomic power projects for generation of electricity
- It also has **equity participation in BHAVINI,** another PSU of Department of Atomic Energy (DAE) which implements Fast Breeder Reactors programme.

Significance of the decision

- **Doubling nuclear capacity** - These plants will more than double the country's current installed nuclear capacity
- **Domestic nuclear capacity building** – The move shows strong belief in the capability of Indian scientists to build our technological capacities which will help India to come at the forefront of global nuclear supply and manufacturing chain in future
- **Increase in employment** – These plants would create Rs. 70,000 crore worth of business for domestic manufacturers (especially in equipment manufacturing industry) and generate about 33,400 jobs.
- **Reducing dependency** – India is facing troubles in international collaborations such as bankruptcy filed by US company Westinghouse and cost issues with French company Ariva.
- **INDC commitments** – It not only ensures the nation's energy security, but also meet India's clean energy commitments for carbon-free sources of power under Paris deal.

Associated Concerns

- **Safety concerns** - The government has to adhere to strict safety standards in the design, building and operations of the proposed reactors.
- **Regulatory issues** – Independent body should regulate public sector nuclear power plants to avoid conflict of interest in having Atomic Energy Regulatory Board, a government body, overseeing them.
- **Time and cost overruns** – It has been the norm in the setting up of nuclear power plants so far. This needs to be changed to ensure operationalization of new plants within a time frame.
- **International aversion to nuclear power** - India's nuclear quest runs contrary to the global pushback against nuclear power.

Current status of India's nuclear capacity

- NPCIL is presently operating 22 commercial nuclear power reactors (details shown in the figure)
- The total installed capacity in India is 6780 MWe, constituting 2.1% of the total installed capacity in India.
- The reactor fleet comprises of three types of reactor
  - PHWR
  - Boiling water reactor (BWR)
  - VVER (Pressurized water reactor type)
- India today has civil nuclear cooperation agreements with several countries, including France, Russia, UK, US and Japan.

Comparison of different types of reactor

The different types of reactor have been compared in the following table:

Plant	Unit	Type	Capacity (MWe)
Tarapur Atomic Power Station (TAPS), Maharashtra	1	BWR	160
Tarapur Atomic Power Station (TAPS), Maharashtra	2	BWR	160
Tarapur Atomic Power Station (TAPS), Maharashtra	3	PHWR	540
Tarapur Atomic Power Station (TAPS), Maharashtra	4	PHWR	540
Rajasthan Atomic Power Station (RAPS), Rajasthan	1	PHWR	100
Rajasthan Atomic Power Station (RAPS), Rajasthan	2	PHWR	200
Rajasthan Atomic Power Station (RAPS), Rajasthan	3	PHWR	220
Rajasthan Atomic Power Station (RAPS), Rajasthan	4	PHWR	220
Rajasthan Atomic Power Station (RAPS), Rajasthan	5	PHWR	220
Rajasthan Atomic Power Station (RAPS), Rajasthan	6	PHWR	220
Madras Atomic Power Station (MAPS), Tamilnadu	1	PHWR	220
Madras Atomic Power Station (MAPS), Tamilnadu	2	PHWR	220
Kaiga Generating Station (KGS), Karnataka	1	PHWR	220
Kaiga Generating Station (KGS), Karnataka	2	PHWR	220
Kaiga Generating Station (KGS), Karnataka	3	PHWR	220
Kaiga Generating Station (KGS), Karnataka	4	PHWR	220
Kudankulam Nuclear Power Station (KKNPS), Tamilnadu	1	VVER -1000 (PWR)	1000
Kudankulam Nuclear Power Station (KKNPS), Tamilnadu	2	VVER -1000 (PWR)	1000
Narora Atomic Power Station (NAPS), Uttarpradesh	1	PHWR	220
Narora Atomic Power Station (NAPS), Uttarpradesh	2	PHWR	220
Kakrapar Atomic Power Station (KAPS), Gujarat	1	PHWR	220
Kakrapar Atomic Power Station (KAPS), Gujarat	2	PHWR	220

Total Nuclear Power Plant Capacity : 6780 MWe

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	BWR	PWR	PHWR	FBR
Purpose	electricity	Electricity, nuclear powered ships	Electricity, plutonium production	Electricity, plutonium production
Coolant	water	water	Heavy water (D_2O)	Molten, liquid sodium
Moderator	water	water	Heavy water (D_2O)	Not required
Fuel	Uranium dioxide	Uranium dioxide (UO2)	UO2 or metal	Plutonium dioxide and UO2 in different combinations
Enrichment level	Low-enriched	Low-enriched	Not-enriched	Various mixtures of P-239 and U-235

Why India chose PHWRs?

- Availability of fuel - guaranteed as India has put most it's PHWRs under IAEA safeguards.
- No need of establishing expensive enrichment facility as it uses natural uranium as fuel.
- Availability of indigenous technology, expertise and resources.
- More energy efficient than comparable Light Water Reactor.

3.14. PHASED MANUFACTURING PROGRAMME

Why in News?

- Government has recently notified Phased Manufacturing Programme (PMP) for promoting the growth of domestic manufacturing of Cellular mobile handsets.

Provisions

- This would be a programme under Ministry of Electronics and Information Technology **(MieTY)**.
- The **overall aim of the scheme** is to impose duties (differential duty regime) and give tax reliefs and incentives on select products involved in the manufacturing of cellular handsets.
- It is called a phased manufacturing programme because it will give **fiscal benefits to domestic manufacturing** of the various components of cellular handsets in different fiscals.

3.15. THINK20 TASK FORCE

Why in News?

- Germany recently convened the **first-ever G20 "digital ministers" meeting** and as a result a T20 task force (**Think20 Task Force**) was set up.

About T20 task force

- It comprises of think tanks and academia (**Observer Research Foundation of India** is in this force) that will offer recommendations to strengthen digital economies and manage the "digitalization" of traditional sectors.
- It would help articulate rules of economic operation for businesses, governments and users transacting on the Internet.
- It would also focus upon -The focus of the group would be on-
  o **Affordable and inclusive Cyber security**.
- Balancing the **automation and its effects like loss of employment**.

3.16. GOLD EXCHANGE IN INDIA

Why in News?

- Indian Government would be creating a local physical spot-gold exchange with the help of World Gold Council (WGC).

Need

- Despite being the second largest importer of gold in the world with a demand of nearly 1,000 tonnes, India lacks many key elements of the gold ecosystem.
    o Many jewellers and traders import gold in refined form from markets like Dubai and Singapore.
    o Gold market remains fragmented in India and price differences exists across the channels of gold buying and selling.
- A gold spot exchange in India could be a national channel to buy and sell standardized quality gold in India and to create a national pricing structure of gold.
- The exchange could provide quality storage facilities and facilitate the financing of gold inventory at internationally competitive rates.

> **World Gold Council**
> - It is a market development organization for the gold industry.
> - It is headquartered in United Kingdom.
> - Its aim is to stimulate and sustain demand for gold, provide industry leadership and be the global authority on the gold market.
> - It also helps countries develop gold standards and hallmarks for gold.
> - It has 22 members which are various gold mining companies.

> - Presently Gold futures contracts are being provided by two entities in the country, the Multi Commodity Exchange (MCX) and the National Commodity and Derivatives Exchange (NCDEX) but a **dedicated platform for exchange of gold does not exist**.
> - The push for a dedicated exchange comes after the launch of the gold monetization schemes and sovereign bond schemes.

Significance

- Gold exchange would enhance the efficiency of gold markets by efficient price discovery, quality assurance by standardization and active retail participation.
- It would also promote the use of gold bars, gold coins and gold-linked financial products instead of jewellery for investment purposes.
- It would integrate financial markets through easier gold leasing and lending practices and acting as a channel for gold recycling.
- It would allow two-way trading in physical gold and also provide derivative products for hedging.

Challenges

- States and not the Centre has the responsibility for gold related matters in India.
- Increased infrastructure such as gold vaults and reliable receipts for metal are also needed.

3.17. BHARTIYA NIRDESHAK DRAVYA

Why in News?

- Recently India developed **Bhartiya Nirdeshak Dravya (BND4201)** which is a gold bar, weighing 20 grams, to verify the purity of gold sold in India.

Background

- In 2016, India Government Mint (IGM), a unit of Security Printing and Minting Corp of India Ltd, signed an agreement with the Bhabha Atomic Research Centre (BARC) and CSIR-National Physical Laboratory (NPL) to develop the **first gold standard**.
- While the bars will be made by the IGM, technical aspects such as measurement would be done by the BARC and certifying the purity of the bars would be the responsibility of the NPL.
- NPL is the **repository of standard units** — such as the kilogram, the second, the centimetre — in India and provides calibration services.

Need

- According to the World Gold Council, demand for gold in India jumped 19% in recent quarter.
- Despite India being one of the largest markets for gold, goldsmiths still depended on imported reference gold bars from Canada and Switzerland to check the purity of their biscuits, coins and jewellery.

Significance

- Indian jewellers will no longer need to import gold bars to check the purity of ornaments. Also the gold bar would be 25% cheaper than the imported version, thus saving precious foreign exchange.
- The new bars are 99.99% pure with impurities of only 100 parts-per-million.
- The bar is also easily portable because it has the size of a small biscuit.
- Development of this reference material indigenously will add to the Make in India campaign.Gold reference standard has importance in government's Gold Monetization Scheme. It will be useful for collection and purity testing centres (CPTC) under GMS.

3.18. PUBLIC PROCUREMENT ORDER 2017

Why in News?

- The Government has issued **Public Procurement (Preference to Make in India), Order 2017** recently to encourage 'Make in India' and promote manufacturing and production of goods and services in India with a view to enhancing income and employment.

Need

- The national procurement policy involves **purchases of at least Rs2 trillion a year** and also covers autonomous bodies, government companies and entities under the government's control.

Salient features

- The government has defined local goods and services as those where at least 50% of the value addition has been done in India.
- For **procurement of goods of value less than Rs 50 lakhs** by government, only local suppliers would be eligible. Bids would be invited for **procurement of goods of value more than Rs 50 lakhs** by the government Procurement less than Rs 5 lakhs are exempted from this order.
- A **standing committee in the Department of Industrial Policy and Promotion** will oversee the implementation of this order and issues arising therefrom, and make recommendations to nodal ministries and procuring entities.
- For the verification of the local content, self certification would be necessary. Nodal Ministries may also constitute committees with internal and external members for independent verifications of the self declarations. False declarations can be debarred for upto 2 years.
- Purchase preference shall be given to local suppliers in all procurements undertaken by procuring entities in the manner specified .As per the order the minimum local content shall ordinarily be 50%.
- The Nodal Ministry may prescribe a higher or lower percentage in respect of any particular item and may also prescribe the manner of calculation of local content.
- **Condition of Reciprocity** - Entities from countries where Indian suppliers are not allowed to participate or compete in bids for government procurement, **may be restricted or excluded from public procurement tenders in India**.

Details of the order-

- For **procurement of goods of value more than Rs 50 lakhs** by government –
  o Bids would be invited. If the lowest bid is of any local supplier then whole order would be awarded to it.
  o If the lowest bid is not by any local supplier, then the bidder would be given 50% of the order.
  o Thereafter the lowest bidder among the local supplier would be invited to match the bid, for the remaining 50% of the quantity, of the original bidder.
  o If the process fails, then the next higher local bidder would be allowed to match the bid and so on.
  o If out of the remaining 50% quantity some is left after exhausting all the options of local suppliers, then the remaining quantity would be given to the original lowest bidder.
- In the case of **procurement of goods that are not divisible and for the procurement of services**
  o If the lowest bid is by local supplier, then the contract would be given to it.
  o If the lowest bid is not by local supplier, then the lowest bid by any local supplier would be given a chance to match the lowest bid and if fail, then the next higher local supplier would be allowed to match the bid and so on.
  o If there is no match by any local supplier, then the contract would be awarded to the original local supplier.
- Procurement less than Rs 5 lakhs are exempted from this order.

Significance

- It would promote manufacturing and production of goods and services in India and enhance income and employment.
- It would also improve competitiveness of the domestic industries vis-a-vis foreign companies.
- In the long term, this policy would also be a benefit towards raising manufacturing exports and earning foreign reserves.
- It would **stimulate the flow of capital and technology** into domestic manufacturing and services.

Challenge

- It could be beneficial in the short term, but restrictions and protectionism in the long terms can hurt efficiency.
- Political interference and bureaucratic red tape in procurement may also hurt the procurement process and market liberalization.

Way Forward

- A **committee under the chairmanship of Ramesh Abhishek (Secretary of DIPP)** has been set up to oversee the implementation of the policy. This if implemented properly would reduce the leakages that are prevalent in the public procurement process. It would also introduce competition within the process and make it more efficient.

3.19. SHAKTI POLICY

Why in News?

- Cabinet recently approved a coal linkage policy called **Scheme to Harness and Allocate Koyla Transparently in India (SHAKTI)**. It aims to auction long term coal linkages to power companies.

Need

- Due to increased demand for electricity, the dependence on coal is also rising. Because of the supply-demand mismatch of the coal, the power companies are forced to import coal from abroad. Therefore a rise in the coal production and a coal linkage policy to link power producers to the coal producers is the need of the hour.

Provisions of the policy

- Coal linkages would be awarded to designated state-owned power distribution companies (DISCOMs). DISCOMs would assign linkages to state or central power generation companies via allocation, and through auction to private units.
- The independent power producers (IPPs) having Power purchase agreements (PPAs) will participate in the auction and will bid for discounts on the existing tariff. This would be adjusted from the gross coal bills.
- IPPs without Power Purchase Agreements (PPAs) shall be bidding for linkage over the notified price of the coal company.

Significance

- It is expected to **revive 30,000 MW of power plants** in the country, which are awaiting fuel supply.

SHAKTI
Scheme for Harnessing & Allocating Koyala (Coal) Transparently in India

ACCOUNTABILITY
- Transparent bidding for coal linkages
- Elimination of discretion in allocation

AFFORDABILITY
- Competition will help reduce power tariffs
- Ensuring 24x7 affordable 'Power for All'

ACCESSIBILITY
- Alleviate bank problems & assist revival of stressed assets
- Ensuring coal to all power plants

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FUELLING CHANGE

Installed coal-based thermal power capacity	1,85,617 MW
Of which, private-sector	70,237 MW
Thermal capacity with letter of assurance (LoA) from CIL **1,08,000 MW**	Fuel supply agreements (FSA) signed in 2013 **78,000 MW**
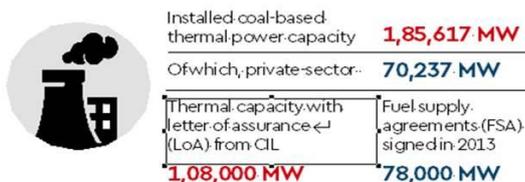
Potential private-sector gainers from the new policy

Plants with LoA, PPA but no FSA	Plants with PPA, but no LoA/FSA	Plants without FSA/PPA
~12,000 MW	~8,000 MW	~10,000 MW
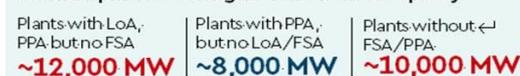
- It would also reduce dependence on imported coal. Most of the thermal power projects were on the verge of turning into non-performing assets (NPAs), as they could not sell power despite having PPAs because they lacked fuel supply. This would get solved.
- This policy would help cut tariffs on electricity applicable to consumers.

Challenges

- The linkage policy spares project developers of the up-front capital costs and risks of a captive mine. This might reduce direct gains to government treasury for a short term.
- Some observers feel that giving coal linkages **on allocation basis** to thermal stations owned by the Centre or state governments and to private developers **on competitive bidding basis** distorts the competitive power market.

Way forward

- This policy is a welcome step towards the government's vision of Power to all and 24*7 electricity. It would also be beneficial towards the rising urbanization and aspiration of the population of India.

SHAKTI SOLUTION

Benefits:
- Policy will ensure all power projects get adequate coal supply
- Bring in transparency in allocation
- Reduce power costs for consumers
- Minimise use of imported coal

Route: PSU power generators will be allocated fuel linkage based on power ministry's recommendations

Auction route for private firms

reducing the use of imported coal and promote more domestic orders, he said.

3.20. COAL FIRES

Why in News?

- **Unsafe and illegal mining** has led to fires in coal deposits under the surface of the Jharia coalfields in Jharkhand's Dhanbad district.

Background

- Most of the mines affected by coal fires date back before Independence and nationalization (private owners ran collieries earlier) when the thrust was on production and profit, with little regard for safety. This problem has later spread to other areas as well.
- There are different types of coal mining techniques which are all probable to fire incidents (see image).

Consequences

- Coal fires are a **risk to the population living on the surface** which could lead to cave-ins and gas spills.
- It is also harmful for the employees as they can get occupational diseases like black lung etc.
- They are also a threat to rail transport. Shutting of rail lines used for the evacuation of coal from production centres to market can lead to loss of revenue for the exchequer.
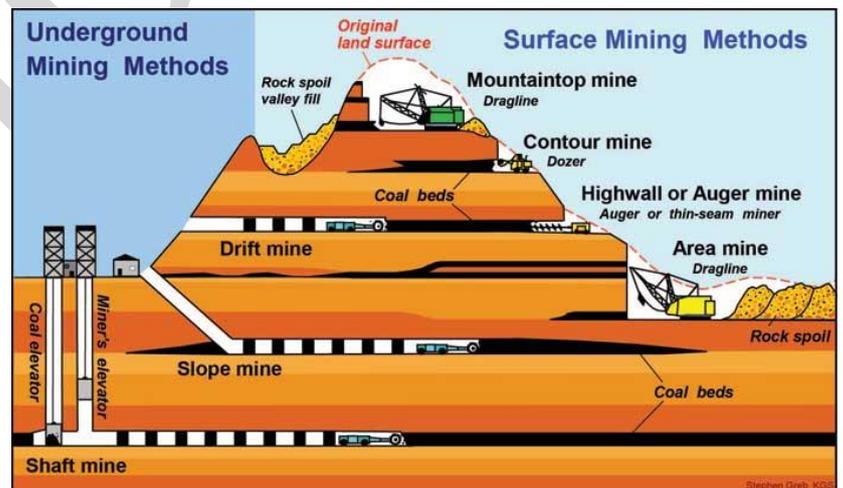
Government steps

- **Fire Mitigation - CIMFR (Central Institute of Mining and Fuel Research)** have started putting down fires with the help of the state government.
  - o It is pushing nitrogen foam mixed with water through boreholes in the affected mines.
  - o It is filling up cavities with sand and mud to cut-off oxygen supply and sprinkling water to lower temperatures.
- Government has shifted the arterial rail lines away from the areas where coal fires are dominant. Eg. Dhanbad-Chandpura line is being diverted from areas like Sijua which are vulnerable to coal fires.

- The **Rehabilitation and Development Authority (RDA),** formed by the Centre, in places like Jharia has now been asked for the **possibility of prefabricated structures** to increase the number of resettlement houses as quickly as possible.

3.21. SEVA APP

Why in News?

- Ministry of Power, Coal, New and Renewable Energy recently launched Saral Eindhan Vitaran Application (SEVA) app for power consumers.

Features

- It has been developed indigenously **by Coal India Limited**.
- SEVA is a **part of 'Digital India' initiative**, which is aimed at increasing the Consumer Connect as well as the **transparency and accountability in coal dispatch.**
- It would initially cover only those coal mines that are associated with power generation. In later stages non power coal mines would also be added to it.
- It would work with **SEVA Dashboard** which provides summary of quantity of coal dispatched along with grades for a day, month, and the latest yearly updates as well.
- The app also provides information on rake movement including latest status of indents of rake, allotment and loading. This would help consumers making advance logistics planning.

Significance

- This app would **help in suo-motu dissemination of information** of larger public interest.
- It would also be a step towards **'m-governance'** and government accountability for the **coal linkage allocations** would increase and common man would be able to **check any pilferage** in coal consumption for power generation. This would lead to **rationalization of coal linkages** and finally **reduction in the power prices** in the country.

3.22. DOMESTICALLY MANUFACTURED IRON AND STEEL PRODUCTS POLICY

Why in News?

- The government recently approved the policy for providing **preference to domestically manufactured iron & steel products** on Government procurement.

Need

- This policy seeks to accomplish the **PM's vision of 'Make in India'** with objective of nation building and **encourage domestic manufacturing**.
- A major part of new steel demand is expected to come from **affordable housing, expansion of railway networks**, development of domestic shipbuilding industry, opening up of defence sector for private participation and an **anticipated growth in automobiles**.
- Steel consumption is poised to go up to 160 kg by 2030-31 from the present level of around 61 kg.

National Steel Policy 2017

- The policy envisages a **crude steel capacity of nearly 300 mt by 2030-31**, which is similar to the earlier target set by the earlier National Steel Policy, 2005.
- In a shift away from earlier policies, it **not only sets a directional roadmap** by setting 160 kg per capita steel consumption but also **puts in place a policy on how to achieve it, produce new products and access key raw materials.**
- India currently imports around 70 per cent of coking coal requirement. It aims at raising the availability of washed coking coal to reduce import dependence on coking coal by 50 per cent by 2030-31.

Domestic crude steel capacity to be 300 million tonne by 2030-31 (122 million tonne in 2015-16) entailing an investment of ₹10 lakh crore

Steel demand estimated at grow 3-fold to 212 to 247 million tonne by 2030-31

Per capita consumption of steel to go up to 160 kgs by 2030-31 (from 61 kgs now)

India to emerge as net exporter of steel by 2025-26

To domestically meet entire demand of high-grade automotive steel, electrical steel, special steels and alloys for strategic applications by 2030-31

Key Targets

Features

- The policy is applicable on all government tenders where price bid is yet to be opened.
- It provides a **minimum value addition of 15% in notified steel products** which are covered under preferential procurement.
- In order to provide flexibility, **Ministry of Steel may review specified steel products** and the minimum value addition criterion.
- Each **domestic manufacturer shall provide self-certification** to the procuring Government agency declaring that the iron & steel products are domestically manufactured.
  - It shall not normally be the responsibility of procuring agency to verify the correctness of the claim. In few cases, the onus of demonstrating the correctness shall be on the bidder when asked to do so.

> **Iron and Steel Industry of India**
> - The inputs for the industry include raw materials such as iron ore, coal and limestone, along with labour, capital, site and other infrastructure.
> - This is a feeder industry whose products are used as raw material for other industries.
> - All the important steel producing centres such as Bhilai, Durgapur, Burnpur, Jamshedpur, Rourkela, Bokaro are situated in a region that spreads over four states — West Bengal, Jharkhand, Odisha and Chhattisgarh.
> - Bhadravati and Vijay Nagar in Karnataka, Vishakhapatnam in Andhra Pradesh, Salem in Tamil Nadu are other important steel centres utilising local resources.

- In case any manufacturer is aggrieved, a **grievance redressal committee** set up under the Ministry of Steel shall **dispose of the complaint in a time bound manner, in four weeks.**
- There are provisions in the policy for **waivers to all such procurements**, where specific grades of steel are not manufactured in the country, or the quantities as per the demand of the project cannot be met through domestic sources.
- It shall be the **responsibility of every Government Agency** to ensure implementation of the policy.

Significance

- It shall **promote growth and development of domestic steel Industry** under the Make in India scheme and shall contribute in reviving the manufacturing sector of the Indian economy.
- It may **reduce the inclination to use, low quality low cost imported steel** in Government funded projects.
- This would also help prevent the dumping of steel in India with excess domestic capacity and would also lower the prices of this raw material.

Other Government Steps to boost domestic steel

- To boost the demand and consumption of steel, an **Institution for Steel Development & Growth (INSDAG)** was set up involving leading steel producers in the country.
- The Development Commissioner for Iron & Steel had launched a **National Campaign for increasing the demand for steel in non-traditional sectors**, particularly in the construction, rural and agro-based industrial sectors.
- Other mechanisms used by the government are strengthening of antidumping mechanism, setting up a steel exporter's forum and an empowered committee for research and development.

3.23. FISCAL CONSOLIDATION OF STATES

Why in News?

- For the first time in 11 years, in 2015-16 the combined fiscal deficit of India's 29 States as a proportion of the size of their economies breached the 3% threshold recommended by successive Finance Commissions (See image).

Background

- The key trigger of the default at the time of 1991 economic liberalization was irrational public spending on borrowed money in the late-1980s. FRBM law (2003) was enacted to limit the government's borrowing authority under Article 268.

- Central government has projected a fiscal deficit of 3.2% of GDP for this year whereas States are expected to bring their fiscal deficit to 2.6%.
- The government has set a fiscal deficit target of 3.2% of GDP in 2017-18.
- Recently, **N.K. Singh panel on fiscal consolidation** has recommended a focus on overall government debt along with fiscal deficit and a 20% debt-to-GDP ratio for States by 2022-23.
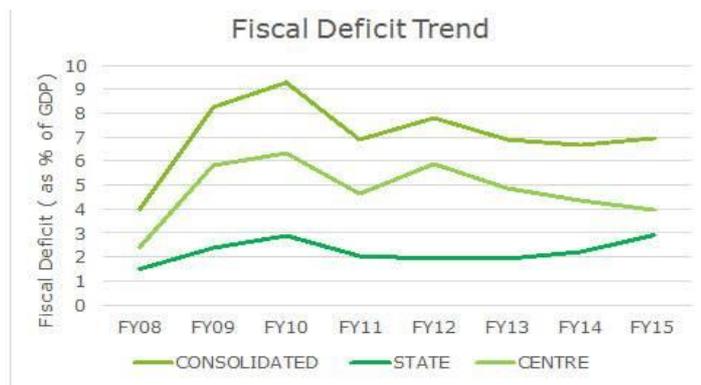
(Source: RBI)

Reasons of poor consolidation

- The reason of the sudden increase in the States' debt is because of the UDAY restructuring exercise of the DISCOMs.
- Also, the private investments are drying up because of the crowding out phenomenon and the State governments have become one of the major contributors of the capital expenditure like transport, irrigation, power etc.

Challenges

- There are several challenges in the short and the long term that may further affect the State's fiscal expenditure like Pay Commission hikes, rising interest payments, ad hoc loan waivers etc.
- This matter is a cause for concern as **sovereign ratings are critical in determining the flow of capital globally**.

Way forward

- Not just the Centre, but States (with outstanding liabilities to GDP of around 24%) need to tighten their fiscal budgets by innovative methods like improving fiscal revenues by tools like REITs and reducing fiscal expenditures like cutting out unnecessary subsidies.
- At the state level also there is a need to **enhance the focus on efficiency of implementation of the government schemes at a micro level** so as to reduce expenditure without cutting down the development objectives.

3.24. FUGITIVE ECONOMIC OFFENDERS BILL

Why in News?

- Government of India recently invited comments for the proposed '**Fugitive Economic Offenders Bill, 2017**' which aims **to deter economic offenders from fleeing the country** by attaching and confiscating properties owned by them in India.

Need

- Till now India has various types of civil provisions dealing with issues of non-repayment of debt. While effective in serving this purpose, they make **no special provisions to deal with** –
  - High-value offenders.
  - Those who might have absconded from India when any criminal case is pending. In case of such absconders, the general provision pertaining to **"proclaimed offenders" under Section 82 of the Code of Criminal Procedure, 1973** only is used.

> **Existing provisions to deal with issues of economic offences**
> 1. RBI Master circular has defined **'wilful default'** and has given deterrent measures like debarring a promoter from raising institutional finance for floating a new venture for 5 years.
> 2. **SARAFAESI Act** is used to recover assets of financial institutions without involvement of courts.
> 3. Under **Recovery of Debts due to Banks and Financial Institutions Act, 1993** a debt may be recovered on the issue of a recovery certificate by the Debt Recovery Tribunal.
> 4. As per Insolvency and Bankruptcy Code, 2016, the debtor or the creditor can trigger the insolvency resolution process on default involving restructuring of the debts. If the plan fails, the liquidation / bankruptcy process is triggered.

- Therefore this Bill would be a dedicated statutory backing for criminal prosecution of fugitive economic offenders.

Background

- The proposed bill was announced in the Budget 2017-18.
- This bill has come when in recent times there has been an incident of fugitive absconding the country and defaulting loans to the banks. For Eg. Case of Vijay Mallya

Provisions of the Bill

- It empowers the government to confiscate properties of fugitive economic offenders. The proposed law will be **applicable in cases where value of offences is over Rs 100 crore**.
- The Bill makes provisions for a **special court under the Prevention of Money Laundering Act** to declare a person a 'Fugitive Economic Offender'.
- A **Fugitive Economic Offender** has been defined under the bill as a person who has an arrest warrant issued in respect of a scheduled offence and who leaves or has left India to avoid criminal prosecution, or refuses to return to India to face criminal prosecution. The onus is on authorities to prove that an individual is a fugitive economic offender.
- At the discretion of any court, such person or any company where he is a promoter or managerial personnel or majority shareholder, may be disentitled from defending any civil claim.
- If prior to the declaration, the alleged fugitive economic offender returns to India and submits to the appropriate jurisdictional court, proceedings under this Act would cease by law.

Significance

- The bill could address the issue of default of bank loans and the mounting Non-performing assets (NPA) because of it that burdens the economy.
- It would also prevent any crowding out of investment for the private sector that occurs when the bank's NPAs rise.
- The bill would also address the problems in the investigations of the criminal cases and would save the time of the judiciary apart from upholding the rule of the law.

3.25. BANK AUTHORIZATION POLICY

Why in News?

- The Reserve Bank of India (RBI) recently relaxed the branch authorization policy.
- It aims to bring all branches and fixed business correspondent outlets under the definition of banking outlets and **removing restrictions on opening branches in Tier 1 centres**.

> **Banking Outlet**
> A banking outlet has been defined as a **manned service delivery point** which is open for **at least four hours a day for at least five days a week**. It should also provide the whole range of services that a regular branch offers, such as deposits, encashing cheques, cash withdrawal and lending.

Background

- The proposal to **rationalize the branch authorization policy** was introduced under former RBI governor Raghuram Rajan in the April 2016 monetary policy.
- Later an internal working group (**headed by Lily Vadera**) came out with the draft report in October 2016. The key focus was to facilitate financial inclusion by ensuring availability of banking services in all centers through low-cost delivery channels.

> **Core Banking**
> Core Banking Solution (CBS) is **networking of bank branches**, which allows customers to manage their accounts, and use various banking facilities from any part of the world. -

- According to the RBI, the total number of banked and un-banked centres (where no physical brick and mortar branch of a bank is present) stood at 49,686 and 555,782, respectively.

Provisions of the revised policy

- The policy has **removed restrictions on opening banking outlets in Tier 1 to Tier 6 centres** without taking RBI's permission in each case.
- It is mandated that banks open **25% of these outlets in unbanked rural centres (URC)**.
  - Under the revised policy, a URC is defined as a **rural (Tier 5 and 6) centre that does not have a core banking system (CBS)**-enabled 'banking outlet' of a scheduled commercial bank, a small finance bank, a payment bank or a regional rural bank etc.

Significance

- It would facilitate financial inclusion by better availability of banking services.
- This policy will help in further penetration of banking in rural areas and increase the profitability of the economy.
- The move will **significantly reduce costs for a bank while for opening branches in un-banked rural centres** because full-fledged banks in such areas are not always profitable due to lower footfalls.

3.26. P-NOTES NORMS

Why in News?

- Recently, SEBI has released a consultation paper on P-Notes planning to further tighten the norms for the issuance of Offshore Derivative Instruments (ODIs)/P-Notes.

> **P-Notes/Overseas Derivative Instruments**
> P-Notes are used by foreign entities who want to get an exposure to Indian equity without getting registered with SEBI. So, SEBI-registered FPIs buy shares on behalf of such entities and then transfer the securities to the actual beneficiaries.

Need

- Owing to the opaqueness of the investment procedure of the P-Notes, it is considered to be a conduit for black money. Therefore its use needs to be restricted only to the genuine users.
- To avoid detection, quite a few ODI subscribers invest through multiple issuers. Therefore proposal in the new consultation paper on P-Notes would be a step towards curbing their misuse.

Background

- About 6% of the total foreign investment in Indian stocks and equity instruments is from P-Notes.
- Once accounting for up to 50% of all foreign investments, P-Note issues have fallen significantly to about a quarter of all ODIs with the steps taken by SEBI till now (see image).
- Last year, SEBI issued instructions (after Supreme Court's orders) on Know Your Customer (KYC) norms for ODI subscribers, transferability of ODIs, reporting of suspicious transactions and periodic review of systems.
- In case such ODIs are transferred, the issuer should give the complete trail of such transfers to SEBI on demand.

SEBI STEPS
- Indian KYC reporting rules will apply to beneficial owners of P-notes
- Transfer of overseas derivative instruments will require prior permission of issuer
- Top 500 listed companies by market cap will have to disclose dividend distribution policies
- Regulations for infrastructure investment trusts to be relaxed

Provisions of the paper

- SEBI has proposed to levy a regulatory fee of $1,000 on every foreign portfolio investor (FPI) that issues ODIs or PNs. This fee would have to be paid by SEBI registered FPIs once every three years for each of their P-Notes subscriber.
- The regulator has also proposed to **prohibit ODIs from being issued against derivatives for speculative purposes**. Currently, ODIs are issued against derivatives along with equity and debt.
  - SEBI has given time until December 31, 2020, to wind up ODIs issued against derivatives, which are not for hedging purpose. It will be incumbent on FPI to ensure that ODI is issued against derivatives which are purely for hedging purpose and not for speculation.

Significance

- It will **discourage the P-Notes subscribers** from taking this route and encourage them to directly take registration as a Foreign Portfolio Investor. This would also be a step towards preventing money laundering.
- It would also be useful to avoid any treaty shopping practices and tax avoidance.

Way forward

- The recommendations of the consultation paper are in the right direction. The regulatory changes, however, require investment in manpower and systems in order to make a quick analysis of the voluminous data being submitted by the ODI-issuing FPIs.

3.27. DRAFT URBAN RENTAL HOUSING POLICY

Why in News?

- Ministry of Housing and Urban Poverty Alleviation has come out with a draft Urban Rental Housing Policy recently.

Need

- First National Housing Policy came out in 1988. Although it had some provisions of tax concessions and subsidies but it did not address the sections of society which did not have enough to afford a house but to rent a house.
- There has also been an increase in the rural to urban migration with rising urbanization in the country. The lack of a proper rental housing policy has led to a rise in slums due to migration.

Salient Features

- **Ministry of Housing and Urban Poverty Alleviation** defines its own role as 'facilitator'. It will just **extend fiscal and non-fiscal concessions** for rental housing created by the state or through PPP and under corporate social responsibility.
- It classifies rental housing into two broad categories: **Social rental housing for urban poor and market-driven rental housing**.
  o **Social rental housing** is targeted at the economically weaker sections **(EWS)**, low-income groups **(LIG)** and the section defined as '**tenants by constraint**' which includes the urban poor belonging to SCs, STs and OBCs, migrants, transgenders and senior citizens.
  o **Market-driven rental housing** includes **institutional rental units** such as hostels for students and working people, **public rental housing** for the PSU employees and government departments and **private rental housing** for everyone else.
- It talks of setting up a **fund for rental vouchers** to be given on a pilot basis in select smart cities. These vouchers, equivalent to a certain cash amount would partially offset the cost of rent incurred by the urban poor.

Challenges

- The policy **explicitly refuses to address the issue of homelessness** because homelessness is treated as a livelihood issue and therefore comes under National Urban Livelihood Mission and not housing policies. This may create gaps in policy making if not properly coordinated within various ministries.
- The Centre's role in the draft policy is **restricted to demand-side intervention**, whereas measures to increase the supply of social rental housing stock is needed whose entire onus has been put on the market.
- Housing being a state subject, is primarily the responsibility of state governments to ensure housing for all.
- Few states and union territories such as Chandigarh, Chhattisgarh, Gujarat, Mumbai Metropolitan Regions etc. have their own rental housing policies. However these have **failed to check the spread of informal housing**.
  o E.g. Mumbai has inserted a domicile requirement in its urban rental policy which defeats the very purpose of the policy.
- Unlike many central government schemes that offer budgetary support for construction of homes, the draft rental housing policy provides for no central funding.

Way forward

- The focus of most of the policy interventions till now are oriented towards home-ownership which is unlikely to solve the housing shortage in urban India keeping in view that majority of the urban housing shortage pertains to EWS and LIG categories. Therefore a cohesive and a dedicated policy towards rental housing was the need of the hour.

3.28. JANAUSHADHI PARIYOJANA

Why in News?

- The railway ministry has given an in-principle approval to opening up of Jan Aushadhi Kendras at railway stations and other railway establishments under the Pradhan Mantri Bhartiya Janaushadhi Pariyojana.

Background

- India is the World's Pharmacy and our Pharmaceutical sector is growing at a pace of 20-21% and India is exporting quality generic medicines to many countries.

About the Scheme

- **Pradhan Mantri Bhartiya Janaushadhi Pariyojana** is a campaign launched by the **Department of Pharmaceuticals**, to provide quality medicines at affordable prices to the masses through special kendra's known as **Pradhan Mantri Bhartiya Jan Aushadhi Kendra (PMBJK)**.
- **Bureau of Pharma Public Sector Undertakings of India (BPPI)**, established under the Department of Pharmaceuticals with the support of all the Central PSUs, **coordinates procures, supplies and markets generic drugs** through PMBJK.
- Procured generic medicines are sold at a price which is 50% - 90% less as compared to the branded medicines in open market.
- All drugs procured under this scheme are tested for quality assurance at NABL (National Accreditation Board Laboratories) accredited laboratories and is compliant with WHO GMP (Good Manufacturing Practices) benchmarks.
- State Governments provide space in Government Hospital premises or any other suitable locations for the running of the Jan Aushadhi Kendra. PMBJK may also be opened **by any Government agencies in any Government building owned by Government bodies.**
  - o Any NGOs/ Charitable Society/Institution /Self help Group/Individual Entrepreneurs/Pharmacist/Doctor can also open the Jan Aushadhi Kendra at outside of the hospital premises or any other suitable place.
  - o Government also provides grants up to Rs 2.5 Lakh.

Significance

- This is another government step to promote the use of generic medicines and reduce the dependence on branded drugs.
- Access of generic medicines on railway stations would boost the accessibility, affordability of essential medicines and improve the convenience of the customers.

3.29. DHOLA SADIYA BRIDGE

Why in News?

- Prime Minister inaugurated the country's longest bridge recently over the Lohit River in Assam.

Features of the Bridge

- It is India's longest bridge measuring 9.15 km.
- It has been named after famous lyricist-singer Bhupen Hazarika. It is longer than the previous longest bridge in India i.e. Bandra-Worli sea link.

Significance

- This bridge would enhance connectivity of the North east with the main regions of the country. It will be a **step towards government's Act East Policy**.
- It would also be a step towards **increasing tourism to north eastern part of India**. Eg. Connectivity of Kamakhya temple would get simplified.
- It would also allow for the **quick disposal of military troops and artillery** in cases of border emergencies or insurgencies.

INDIA'S LONGEST BRIDGE

PM Narendra Modi is set to open the Dhola-Sadiya bridge, which will be India's longest, over the Brahmaputra river on May 26. It will be capable of withstanding the weight of a 60-tonne battle tank
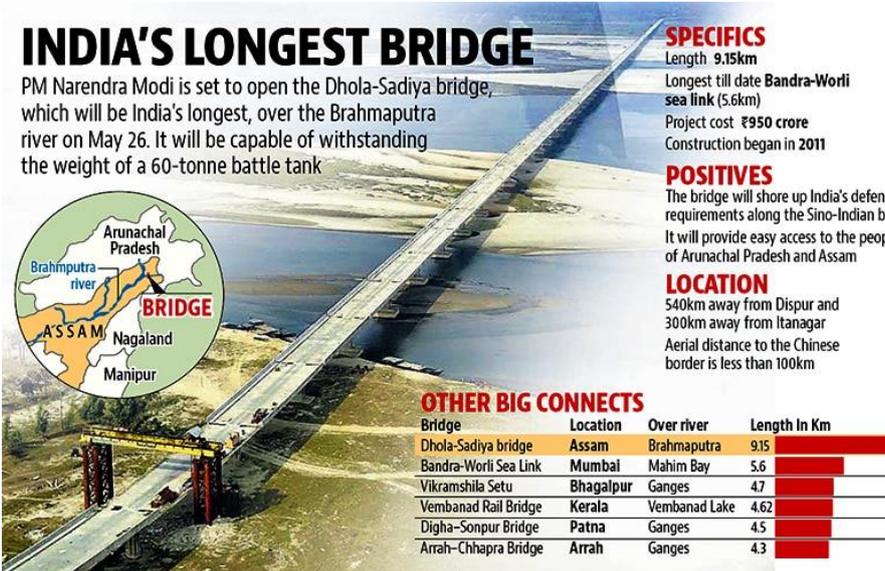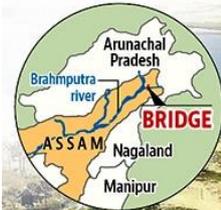
SPECIFICS
Length **9.15km**
Longest till date **Bandra-Worli sea link** (5.6km)
Project cost **₹950 crore**
Construction began in **2011**

POSITIVES
The bridge will shore up India's defence requirements along the Sino-Indian border
It will provide easy access to the people of Arunachal Pradesh and Assam

LOCATION
540km away from Dispur and 300km away from Itanagar
Aerial distance to the Chinese border is less than 100km

OTHER BIG CONNECTS
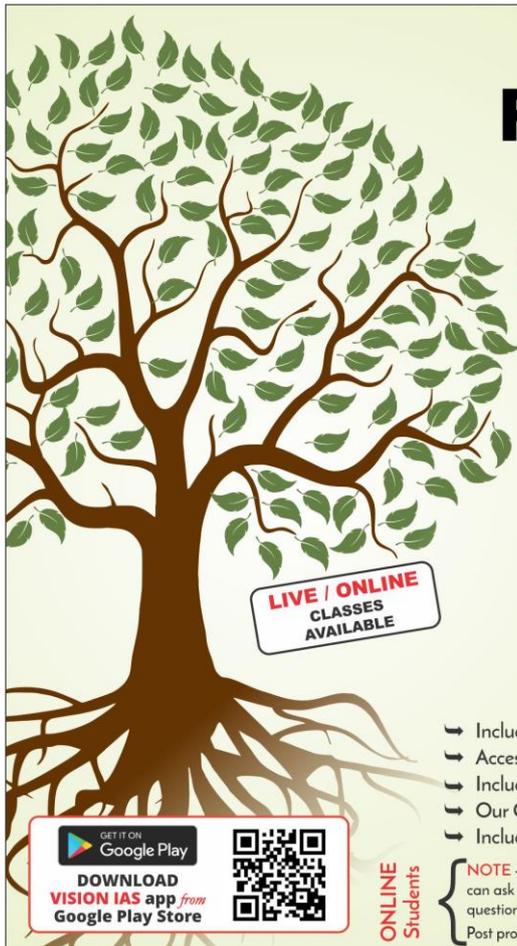
Bridge	Location	Over river	Length In Km
Dhola-Sadiya bridge	**Assam**	Brahmaputra	9.15
Bandra-Worli Sea Link	**Mumbai**	Mahim Bay	5.6
Vikramshila Setu	**Bhagalpur**	Ganges	4.7
Vembanad Rail Bridge	**Kerala**	Vembanad Lake	4.62
Digha-Sonpur Bridge	**Patna**	Ganges	4.5
Arrah–Chhapra Bridge	**Arrah**	Ganges	4.3

VITAL FOR ASSAM

- After Kaliabhomora Bridge near Tezpur, there is no bridge over the Brahmaputra for the next 375km upstream till Dhola, where the new bridge is constructed
- Currently, all the transport between the two banks of the river are carried out only via water
- The bridge will cut down travel time between Assam and Arunachal Pradesh by as much as four hours
- It will help people of Assam to reach the nearest rail head in Tinsukia and the airport in Dibrugarh

The PM will dedicate the bridge to the nation...It will bolster road connectivity in N-E as the bridge will be used by people of Assam and Arunachal besides defence forces extensively

Sarbananda Sonowal, Assam CM

4. SECURITY

4.1. INTEGRATED THEATRE COMMAND

Why in News?

A committee appointed by the Defence Ministry, headed by Lt General D B Shekatkar (retd.) has submitted it report to MoD.

Recommendations

It recommended creating 3 integrated theatre commands:

- Northern command for the China border,
- Western command for the Pakistan border and
- Southern command for the maritime borders.

As the Northern and Western commands have land borders, Army General could head it owing to their expertise. The southern command could be headed by a Navy Admiral.

- The Indian armed forces currently have 17 commands.
- There are 7 commands each of the Army [Northern, Eastern, Southern, Western, Central, South-western and Army Training Command (ARTRAC)].
- Air Force has [Western, Eastern, Southern, South-western, Central, Training and Maintenance].
- Navy has 3 commands [Western, Eastern and Southern].
- Each command is headed by a 4-star rank military officer.
- In addition, there are 2 tri-service commands [Strategic Forces Command (SFC)] and Andaman and Nicobar Command (ANC)], which is headed by rotation by officers from the 3 Services.
- ANC is an integrated theatre command.
- The other tri-service command, SFC, looks after the delivery and operational control of the country's nuclear assets. Since it has no specific geographic responsibility and a designated role, it is an integrated functional command, not a theatre command.

Background

- Presently, we have service-specific commands i.e. Air Force and Navy all have their own commands all over the country.
- Jointness among service commands: While the 3 Services progress and develop in their respective spheres with their independent identity, they function together and so coordinate their operations in war.
- During war: Coordination of operations is expected to be carried out at the level of Service Headquarters through the Chiefs of Staff Committee (COSC). The chairman of this COSC, is still not appointed.

What is an integrated theatre command?

An integrated theatre command envisages a unified command of the three Services, under a single commander, for geographical theatres that are of security concern.

A composite and cohesive whole: Enmeshing the three Services together at different levels and placing them under one commander for execution of operational plans.

Efficacy and Efficiency against the enemy: The integrated theatre commander will not be answerable to individual Services. He will be free to train, equip and exercise his command to make it a cohesive fighting force. The logistic resources required to support his operations will also be placed at the disposal of the theatre commander so that he does not have to look for anything when operations are ongoing.

Arguments for

- Avoids duplication, economy of resources and ensures optimum utilisation of available resources.
- With a single commander, you can have all the military assets under him. This will result in combat efficiency. For example, nations like U.S and China have integrated commands. In fact, Chinese border with India has a single command,
- The COSC, during war times, functions on the principle of consensus. This makes decision-making delayed on jointness in operations can become difficult.

Arguments against

- India is not geographically large enough to be divided into different theatres, as resources from one theatre can easily be moved to another theatre.
- We have shortage of military infrastructure. For example, with only 34 out of 45 fighter squadrons present, dividing already scarce resources is infeasible.
- The US has global roles where it can't move assets from one theatre to another. India has no such problems of distance and time.
- There are fears among the smaller services that such a change would diminish their importance and the power of the service chiefs.

Way forward

Good starting point to the creation of integrated theatre commands would be the appointment of a Chief of Defence Staff or Permanent Chairman, COSC.

There has been a demand for other integrated functional commands, such as the cyber, aerospace and Special Operations commands, but the government is yet to approve any.

Creation of integrated theatre commands will require sustained political will. It must be a phased reform. There is a need for greater joint-ness among the three services, it is not appropriate to move to integrated theatre commands anytime soon.

4.2. 'SAMADHAN' DOCTRINE FOR NAXAL VIOLENCE

Why in news?

25 jawans lost their lives in the Sukma attack, the deadliest Naxal strike on the CRPF in years.

What is 'SAMADHAN'?

Operation 'SAMADHAN' is the Ministry of Home Affairs (MHA)'s answer to the Naxal problem.

The acronym SAMADHAN stands for:

- S-Smart leadership – states to "take ownership" of anti-Naxal operations and frame an "integrated strategy to deal with guerrillas"
- A-Aggressive strategy, -- More helicopter support for operations, 400 fortified police stations to be set up in Naxal belt.
- M-Motivation and training – Indian Army or specialized forces - such as Greyhounds - to train forces to take on Naxals.
- A-Actionable intelligence – Joint Task Forces for operations along inter-State boundaries to be set up. Better inter-state coordination and intelligence sharing.
- D-Dashboard Based KPIs (key performance indicators) and KRAs (key result areas),
- H-Harnessing technology –UAVs and drones for maoist hotbed areas; GPS tracking, HHTI (hand-held thermal image) devices, radar, satellite imagery, trackers in weapons.
- A-Action plan for each theatre
- N-No access to financing -- Prevention of Money Laundering Act (PMLA) to be reviewed to ensure effective choking of fund flow to LWE groups.

Way forward

- Union Home Minister referred to "Unity of purpose", "aggression in policy" and. ''choking of funds to Left extremists'' as the basic mantras to tackle naxal menace.
- Resumption of Left Wing Extremism (LWE) - specific schemes such as SRE, SIS, IAP/ACA, CIAT schools, is a sustainable solution in long term. Fast tracking building infrastructure, power distribution, mobile towers with 3G connectivity, and road-rail connectivity, is needed for maintaining law and order and create development.

4.3. BRAHMOS TESTED FROM ANDAMAN ISLANDS

Why in news?

The land-to-land configuration of BRAHMOS Block III, missile was launched from a Mobile Autonomous Launcher (MAL) for its full-range testing in the Andaman and Nicobar Islands.

Significance of Brahmos

- Brahmos is a supersonic cruise missile (speeds of Mach 2.8 to 3.0). It is the world's fastest anti-ship cruise missile in operation.
- It successfully hit the land-based target with bulls eye precision in a "top attack configuration", meeting all flight parameters in a copybook manner.
- The strike range of the missile was enhanced from 290 km to 450 km.
- It is a multi-platform, multi mission missile; capable of being launched from land, air, sea, sub-sea against surface and sea-bed targets.

> Brahmos was jointly developed by DRDO (India) and NPOM (Russia).
>
> After India became a member of the Missile Technology Control Regime (MTCR) in 2016, India and Russia are now planning to jointly develop a new generation of Brahmos missiles with 600 km-plus range. Earlier range was restricted to sub-300 kms.

4.4. STRATEGIC PARTNERSHIP MODEL

Why in news?

Cabinet cleared Strategic Partnership model for defence manufacturing.

What is strategic partnership?

- The idea is to enlist private sector defence companies in each of the segments as strategic partners for long-term contracts.
- This company then starts a Joint Venture with the foreign Original Equipment Manufacturer selected through the procurement process, to build the platform in India with significant technology transfer.
- And long term contracts will be awarded to these companies, to give them the economies of scale as defence involves large investments.

Significance

- To strengthen the private industries in the defence and defence PSUs and create domestic expertise in four key areas: fighter aircraft, helicopters, submarines, and armoured vehicles and main battle tanks.
- To enhance competition, increase efficiencies, facilitate faster and more significant absorption of technology,
- Create a tiered industrial ecosystem, ensure development of a wider skill base, trigger innovation and enable participation in global value chains as well as promote exports.
- Projects worth Rs. 50,000 crore are stuck in the absence of the SP chapter. Foreign OEMs have already made it clear that without this chapter, they are unable to form joint ventures with Indian defence firms and there has been a dearth of large-scale defence projects.

Criticism

- The SP model may block new technology and new players coming to the defence sector. This may lead to monopolization.
- Main concern for private sector is to choose only one particular segment for SP.

4.5. WANNACRY RANSOMWARE

Why in News?

- Recently, a ransomware called Wannacry, infected more than 100,000 computers all over the world. CERT-IN in this context issued a "critical alert" and advised the installation of relevant "patches" to protect against any data breaches.

Background

- There are many types of malware that affect a computer, ranging from those that steal information to those that just delete everything on the device.
- A ransomware typically logs users out of their own systems through forced encryption of data and asks them to pay a ransom (**in the case of WannaCry, the ransom was demanded in bitcoin**) if they want to access the encrypted data.
- The country most affected by WannaCry is UK, where **National Health Service trusts** were impacted, causing widespread disruption to health services.
- Infected computers appear to largely be **out-of-date devices** or, in some cases, machines involved in manufacturing or hospital functions that proved too difficult to patch without possibly disrupting crucial operation

HOW RANSOMWARE WORKS

Malicious code blocks access to the data in your computer

You receive an infected file (typically attached to an email or a URL); if you open it, you've let malicious code into your computer

Encryption key locks all your data

Without the key, all the files on your computer are locked

'Command and control' server

When you try to open a file, a message appears demanding a ransom

In a matter of minutes, your files are out of reach

If you don't pay
- Your encrypted files are lost

If you pay
- You send the ransom money to an anonymous recipient hiding in the 'Darknet'
- Normally, you get the key to the data in an hour or so

Payment in cryptocurrency bitcoin helps hackers cover their tracks

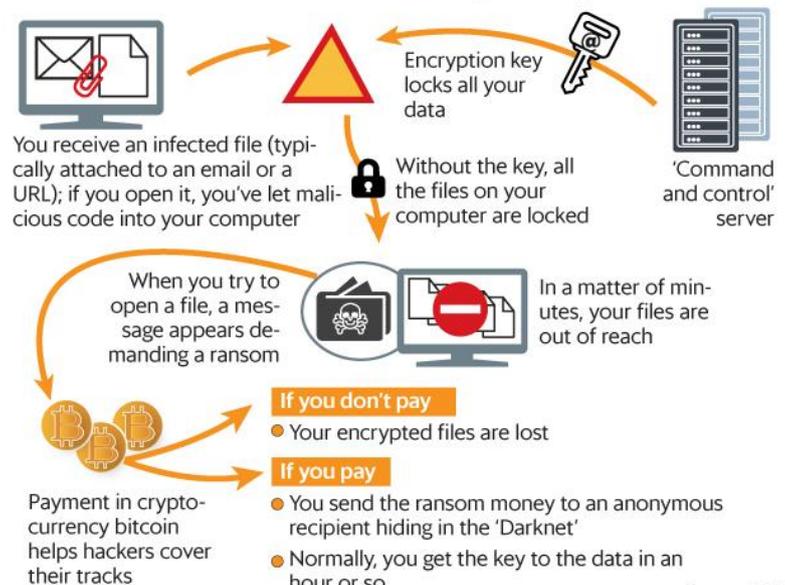Source: AFP

Effect on India

- India's vulnerability was higher because most official computers run Windows and regular updates were not a habit.
- A lot of personal data online is now connected to the Aadhaar data and therefore future such attacks can make privacy of millions of Indians vulnerable.

Solution

- There is a **need for a four-phase approach to cybersecurity**
  - **Predict** by performing an exposure analysis
  - **Prevent** by deploying a defensive solution to reduce the attack surface
  - **Respond** by determining how a breach happened and what impact it had on systems
  - **Detect** by monitoring infrastructure for signs of intrusion or suspicious behaviour.

4.6. NTRO UNDER INTELLIGENCE ACT

Why in News?

- Recently, the Home Ministry issued a notification **listing National Technical Research Organization (NTRO) under the Intelligence Organizations (Restriction of Rights) Act, 1985**.

About NTRO

- The NTRO was created after the 1999 Kargil conflict as a dedicated **technical intelligence agency**. It was finally constituted in 2004.
- NTRO reports to the Prime Minister's Office (PMO) and the National Security Advisor (NSA).
- It functions under the National Security Adviser.
- It also includes National Institute of Cryptology Research and Development.

Intelligence Organizations (Restriction of Rights) Act 1985
- The aim of this act is to prevent leakage of information by intelligence agencies.
- It prevents employees of a notified agency -
  - From forming unions/associations.
  - Puts restrictions on the employee's freedom of speech
  - Bars any communication with the press, or publishing a book or other document without the permission of the head of the intelligence organization.

Significance

- After this notification, NTRO will now have the **same "norms of conduct" and powers as the Intelligence Bureau (IB) and the Research and Analysis Wing (R&AW)**.
- In 2012, the Home Ministry had declined to give phone surveillance powers to NTRO arguing that it was not notified under the Act. Now NTRO may be allowed to intercept.

Challenges

- The Act does not define any restrictions on operations of various intelligence agencies which leads to its misuse by security agencies.
- Both IB and RAW have been opposing the inclusion of any other intelligence agencies under this Act.

Way forward

- Many security agencies like National Investigation Agency (NIA), Directorate of Revenue Intelligence (DRI) and Narcotics Control Bureau (NCB) also want inclusion under the Intelligence Organizations Act. The government should also proceed to this to further streamline our intelligence ecosystem.

4.7. BICYCLE PATROLS

Why in News?

- 'Bicycle Patrols' was launched recently by the Delhi Police.

Features

- It would act as a **complement and supplement its existing motorcycle and PCR patrols** which focus mainly on crime prevention along the arterial and main roads of Delhi.
- One of the main focus areas will be parks where **senior citizens and women** go for walks.
- Bicycle patrols will also be introduced in the **University campuses and schools/colleges** where the police officers can have a friendly interface with the student community.

Significance

- Bicycle patrol parties will bring the **concept of 'Policing by community involvement'** nearer to the citizens.
- It would function like mobile police posts of the local Police Station therefore bringing the policing functions at the quick disposal of the citizens.
- Bicycle Patrols have been launched as a **'green' initiative for patrolling the parks, congested lanes and by-lanes, the cooperative societies etc**. They will also be utilized for patrolling during odd hours when the residents are taking rest, since they are less disturbing.
- Being slow paced, the **spectrum of observation of bicycle patrol officers will be qualitatively much more meaningful** in detecting unwarranted movements and questionable presence in the areas of patrol.

5. ENVIRONMENT

5.1. URBAN FLOODING

Why in news?

The Union urban development ministry released a paper 'Urban Flooding — Standard Operating Procedure' that lays guidelines to be followed by various public agencies and government departments.

Standard operating procedure

- Increased instances of floods in urban areas e.g. Uttarakhand Flash Floods, Chennai Floods necessitated the need of a **standardised plan** to tackle such situation.
- Thus the Guidelines by the ministry include following instructions for various departments:

> Urban floods are floods which occur in urban areas due to:
> - Heavy rainfall
> - Lack of water reservoirs such as lakes
> - Silting of drainage system
> - Population pressure, urbanisation and deforestation.
> - Lack of flood control measures etc.

ULBs and development authority

- Setting up **emergency operations centres (EOCs) and crisis-control room** in the corporation room and municipal wards.
- Organise **temporary shelters** with food and water supply
- Coordinate rescue plan with departments such as industries (chemical accidents), fire brigade, police and the health department
- Set up **information centre** for sharing details with the media and the public.
- Urban development authority has to prepare **city master plans**, including disaster mitigation plan and integration of city drainage and sanitation plan.

Health department

- Set up **Epidemic Control Unit (ECU)**,and analyse data received from hospitals
- Maintain emergency stock of medicine, equipment and blood.
- It has to establish health facility and treatment centers at disaster/relocation sites.
- It has to prepare and maintain **crisis/epidemic management report** and submit a final one to the EOC.

PWD and irrigation department

- PWD has to maintain the drains periodically and **update the Drainage Master Plan**.
- maintain an inventory of all roads and bridges by hierarchy, and prepare a **disaster response map identifying safe routes and exit.**
- undertake repairs of buildings and related infrastructure

Power supply and telecommunication

- Power supply department has to **identify sensitive locations** around high-risk power installations and raise the level of transformers and substations above flood level
- Maintain emergency power supply lines to the temporary relief shelters.
- The telecom department should deploy **portable communicable system** in the vulnerable flood site

Police and fire department

- The police should ensure **crowd management**, it must have a detailed report on evacuation and other rescue.
- Fire department has to prepare emergency fire extinguishing facilities and boats for recuse in flooded areas.

5.2. DROUGHT IN SOUTH INDIA

Why in news?

Kerala and Tamil Nadu are facing an unprecedented drought – the worst ever in over a century, according to experts; Karnataka's

> Droughts are not attributed to only scarcity of rainfall but more to inefficient management of water resources.
>
> Eg- region with less rainfall but growing less water intensive crops like bajra is not said to have drought like condition

northern districts are without water for the third consecutive year.

Reasons for the Drought

- **Rainfed agriculture**-Failure of Northeast monsoon and lack of irrigation facilities being the major reason for the drought.
- **Urbanization** has converted the wetlands and other areas into concrete surfaces that does not allow the conservation of water.
- **Inter-state river water disputes**: southern states are not ready to sit together and solve the problem of sharing of river waters.
- **Water has lost the cultural connect**- historically large number of ponds were connected to each other so that overflow of water in one reaches other, there used to be celebration of festivals for conservation of water has gone, etc.
- **Faulty cropping pattern-** water intensive crops such as paddy, sugarcane are given preference by farmers because of high Minimum Support Price(MSP) given by government

What can be done?

- Focus should be on developing large number of small reservoirs at local levels may or may not linked to irrigation canals. Eg Gujarat has developed large number of check dams in Saurashtra region.
- Agroclimatic cropping pattern- should be followed
- Increase investment in irrigation especially micro irrigation practices like drip irrigation. Pradhan Mantri Krishi Sinchayi Yojna would help in this.

> **Drought Crisis Management Plan, 2015**
>
> The manual sets out four important measures that a State government should take at the time of a drought, with the Union government's help.
>
> - MGNREGA to provide immediate employment to drought-affected people.
> - The public distribution mechanism should be strengthened to provide food and fodder
> - initiate actions to recharge the groundwater table by building check dams and providing pipeline water and other irrigation facilities
> - The government should either waive off or defer farmer loans and arrange for crop loss compensation.

5.3. BONN CLIMATE MEET

Why in news

- The Bonn Climate Change Conference, organized by UNFCCC begin in Bonn, Germany to further implementation of Paris Agreement.
- At Bonn, Parties would continue their work on formulating the rule book for implementation of the provisions of Paris Agreement, the deadline of which is agreed to be 2018.

About UNFCCC

- In 1992, countries joined the United Nations Framework Convention on Climate Change, as a framework for international cooperation to combat climate change by limiting average global temperature increases.

Paris Agreement

- At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal.
- The agreement sets out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to well below 2°C.

5.4. SUSTAINABLE TOURISM

Why in news?

Sustainable tourism was the theme of World Biodiversity Day 2017.

About sustainable tourism

- **Sustainable tourism is defined as "tourism that respects both local people and the traveller, cultural heritage and the environment"**.

- It seeks to provide people with an exciting and educational holiday that is also of benefit to the people of the host country.

Objectives

- To appreciate the benefits and problems arising from various forms of tourism, especially in terms of **social equity and the environment**;
- To develop a **critical awareness** of the ways in which tourism can enhance the welfare of people and protect our natural and cultural heritage;
- To promote a **personal commitment** to forms of tourism that maximise rather than detract from sustainable human development and environmental quality; and
- To plan ways of teaching about sustainable tourism.

India and sustainable tourism

- Ministry of Tourism has launched the Implementation of the Sustainable Tourism Criteria for India (STCI) in association with Ecotourism Society of India (ESOI)
- The Sustainable Tourism Criteria for India (STCI) had been developed for the accommodation, tour operators and beaches, backwaters and lakes sectors of the tourism industry.
- The STCI follow the guidelines set by the Global Sustainable Tourism Criteria (GSTC) that has been evolved under the guidance of the United Nations' agencies viz. UNEP and UNWTO.

> **CONVENTIONAL TOURISM**
> - Profit and Tourist oriented
> - Conservation and local communities not a priority
> - Much revenue goes to outside operators & investors
>
> But in the longer run adopting sustainable tourism offers following benefits:
>
> **SUSTAINABLE TOURISM**
> - Planned with three goals: profit, environment, and community (triple bottom line)
> - Usually planned in advance with involvement of all stakeholders
> - Locally oriented
> - Focus on educational experiences
> - Conservation of natural resources a priority
> - More revenue stays with local community

5.5. CYCLONE MORA

Why in news?

Recently cyclone Mora affected **Sri Lanka, Andaman and Nicobar Islands, Bangladesh, Myanmar** etc. The monsoon's arrival will be delayed due to the Cyclone Mora which cooled down sea surface temperatures and reduced convection and cloud cover.

About tropical cyclones

- Tropical cyclone**,** also called typhoon or hurricane, an **intense circular** storm that originates over warm tropical oceans and is characterized by low atmospheric pressure, high winds, and heavy rain.
- **Tropical cyclones are known by various names in different parts of the world**. In the North Atlantic Ocean and the eastern North Pacific they are called hurricanes, and in the western North Pacific around the Philippines, Japan, and China the storms are referred to as **typhoons**. In the western South Pacific and Indian Ocean they are variously referred to as severe tropical cyclones.
- There are some conditions favourable for this process to take place. The conditions are :
  o The temperature of the surface layer of ocean water must be **26.5 °C (80 °F) or warmer**.
  o A **preexisting** atmospheric circulation must be located near the surface warm layer.
  o The atmosphere must cool quickly enough with height to support the **formation of deep convective clouds.**
  o The middle atmosphere must be **relatively humid** at a height of about 5,000 metres (16,000 feet) above the surface.
  o The developing system must be at least 500 km (300 miles) **away from the** Equator etc.

5.6. CHITALE COMMITTEE

Why in News?

- Recently, Chital Committee formed by the government on Desiltation of the river Ganga, submitted its report to the government.

Background

- The committee was constituted in 2016 by the Ministry of Water Resources River Development and Ganga Rejuvenation to prepare guidelines for desiltation of river Ganga from **Bhimgauda (Uttarakhand) to Farakka (West Bengal)**.

Recommendations

- It observes that it is **impossible to apply a "one-size-fits-all" approach to sediment management and control** because of regionally-specific issues like topography, river control structures, soil and water conservation measures, tree cover, and riparian land-use or land disturbance having impact on sediment loads in rivers.
- It has recommended to -
  - **Study reach wise sediment transport processes** along with establishing annual sediment budgets to guide de-silting activities
  - **Prepare annual reports (Sand registry)** describing the previous de-silting/ dredging activity.
  - **Entrust a technical institute to conduct the sediment budget**, morphological and flood routing studies that would examine and confirm the necessity of the de-silting of the reach under consideration.
  - River morphological studies should be carried out to initiate in-stream channel improvement works.
- **Catchment Area Treatment and Watershed Development works**, along with good agricultural practices and river bank protection are necessary to reduce silt inflow.
- Rivers should be provided with sufficient flood plains without any hindrance to the flow.
- Instead of "keeping the silt away", **strategy to "giving the silt way" should be adopted**.
- In case where constriction is causing large scale siltation, de-siltation along the preselected channel to deepen and attract the flow could be tried to guide the main course of flow.
- **De-silting of the confluence points**, especially with huge silt carrying tributaries, such as Ghagra, Sone, etc., may be necessary to make confluence hydraulically efficient.
- The Ganga Flood Control Commission should be entrusted with additional mandate to carry out necessary studies on sediment management in river Ganga.

> **Ganga Flood Control Commission (1972)**
> - It is a **sub-ordinate office** of Ministry of Water Resources, River Development and Ganga Rejuvenation.
> - It acts as the secretariat and executive wing of Ganga Flood Control Board, headed by Union Minister of Water Resources, River Development and Ganga Rejuvenation with the Chief Ministers of Ganga river basin States and Member, NITI Aayog.
> - It is headquartered in Patna.

Significance

- The committee's recommendations if implemented can improve hydraulic performance of the river and also be a solution towards reducing the impact of pollution of rivers.
- Desiltation of this stretch would also provide easier navigability of water transport. Promotion to river transport would also have ancillary benefits like lesser pollution, more employment etc.

Challenges

- The de-siltation may result into some adverse impacts like River bed degradation, Bank erosion, Channel widening, lowering of water surface elevations etc. This should be prevented to the maximum extent.

5.7. MANDAL DAM

Why in news?

The National Board of Wildlife (NBWL) is planning to give clearance to the Mandal Dam in Latehar district after it studies the dam's potential impact on the Palamu Tiger Reserve's (PTR) ecosystem.

About Mandal dam

- The Mandal dam was envisaged in Kutku and Mandal villages of Latehar as a part of North Koel river irrigation project in the 1970s.
- The 367 metre-high dam is to irrigate a large part of neighbouring districts of Bihar.

- The construction of the dam's walls was completed in the early 1990s but the installation of sluice gates was halted amid environmental concerns.

Palamu tiger reserve

- The Palamu Tiger Reserve is located in the western side of Latehar district on the Chhotanagpur plateau in **Jharkhand.**
- The forest is surrounded by the Netarhat forest in the South, Auranga river in the North, Latehar Forest Division on the East and Garhwa Forest Division and Sarguja District Forest of Chhatisgarh on the West.
- The project area is **constituted mainly of Sal forests, mixed deciduous forests and bamboo groves.**
- The reserve zone is the watershed area for 3 important **rivers Koel, Burha and Auranga**.

National board for wildlife

- National Board for Wild Life is a "**Statutory Organization**" constituted under the Wildlife Protection Act, 1972.
- Theoretically, the board is "**advisory" in nature** and advises the Central Government on framing policies and measures for conservation of wildlife in the country.
- The National Board for Wildlife is **chaired by India's Prime Minister** and its vice chairman is Minister of Environment. It has power to review all wildlife-related matters and approve projects in and around national parks and sanctuaries.
- No alternation of boundaries in national parks and wildlife sanctuaries can be done without approval of the NBWL.

5.8. PAMPA RIVER CONSERVATION

Why in news?

Recently, Mahatma Gandhi University has chalked out a seven-point action plan for conservation of the river.

About the river

- Pampa River is located at bottom of the **Ratnagiri hill** on which Sri Satyanarayana Swamy Temple is situated.
- The Pampa is the first river system from Kerala to be included in the NRCP. The Union Ministry of Environment, Forests and Climate Change provides funds for implementing pollution-abatement schemes in the Pampa as part of the National River Conservation Plan (NRCP).

Pampa declaration

- It delineates a **comprehensive plan** to be implemented with the active involvement and support of the government and the public.
- declaration for **bestowing living entity status** to river Pampa
- the constitution of a **River Management Board** for the governance of the river
- documentation of livelihood along the river basin
- Publication of **periodic status report** of flood plains and wetlands and formation of tributaries, micro watersheds, and ponds linked to the river every five years.

5.9. BUSTARD BREEDING CENTER

Why in news?

The Rajasthan government will set up a captive breeding centre for the great Indian bustard.

Background

- This will be the **first such facility** in the country aimed at saving the bird, which is the State bird of Rajasthan.
- Rajasthan accounts for 95% of the total world population of Great Indian bustard.

> **Integrated Development of Wildlife Habitats**
> It is a Centrally Sponsored Scheme where GoI provides financial and technical assistance to the State/UT Governments for activities aimed at wildlife conservation. The scheme has following three **components**:
> - **Support to Protected Areas** (National Parks, Wildlife Sanctuaries, Conservation Reserves and Community Reserves)
> - **Protection of Wildlife Outside Protected Area**
> - **Recovery programmes for saving critically endangered species and habitats.**

About Great Indian bustard

- A large bird with a horizontal body and long bare legs giving it an ostrich like appearance
- This bird is among the **heaviest of the flying birds**.
- **Found in central India, western India and eastern Pakistan**
- Habitat: Arid and semi-arid grasslands, open country with thorn scrub, tall grass interspersed with cultivation. It avoids irrigated areas.
- Listed in **Schedule I** of the Wildlife (Protection) Act, 1972 and **CMS or Bonn Convention**.
- It is also listed in Appendix I of CITES, as **Critically Endangered on the IUCN Red List**.
- It has also been identified as one of the species for the recovery programme under the **Integrated Development of Wildlife Habitats** of the Ministry of Environment and Forests.
- The biggest threat to this species is hunting. This is followed by occasional poaching outside Protected Areas, collisions with high tension electric wires, fast moving vehicles and free-ranging dogs in villages.

Convention on the Conservation of Migratory Species of Wild Animals (CMS) or Bonn convention

- It is an environmental **treaty under the aegis of the United Nations Environment Programme**
- CMS provides a global platform for **the conservation and sustainable use of migratory animals** and their habitats. Migratory species threatened with extinction are listed on Appendix I of the Convention.
- CMS brings together the States through which migratory animals pass, the Range States, and lays the legal foundation for internationally coordinated conservation measures throughout a migratory range.
- Only global convention specializing in the conservation of migratory species, their habitats and migration routes. India is a member of the convention.

5.10. INDIAN WILD DOGS (DHOLES)

Why in news?

The Indira Gandhi Zoological Park (IGZP), running a conservation breeding centre for dholes plans to reintroduce a pack of 16 into the forests.

About dholes

- Dholes occur in several regions of India such as the Western Ghats, central Indian forests, Eastern Ghats, northeastern states and Terai region in north India.
- In the Himalayan region, they are found **in Sikkim and Ladakh**
- Protected under **Schedule 2** of the Wildlife (Protection) Act, 1972
- Listed as '**endangered**' by the International Union for Conservation of Nature (IUCN)

Indira Gandhi Zoological Park

- It is one of the largest zoological parks of Andhra Pradesh situated in Visakhapatnam.
- Surrounded by Eastern Ghats on three sides, the park has the flowing Bay of Bengal on its fourth side.

5.11. BLACK NECKED CRANE

Why in news?

The cranes are facing huge threats especially in Arunachal Pradesh.

About the crane

- **Migratory bird** most commonly found in China.
- It is legally protected in Bhutan and India and is considered sacred to certain Buddhist traditions.
- **IUCN status – Vulnerable**
- Listed in India's Wildlife Act as a **Schedule 1 species**
- It is locally known as **Dhung Dhung Karma**.
- Also it is the only high altitude crane amongst the 15 species found in the world.
- These birds build their nests in vast open environments, making them vulnerable to a host of predators.

5.12. INDIAN STAR TORTOISES

Why in news?

Chinnar Wildlife Sanctuary (CWS) has successfully rehabilitated Indian star tortoises, making it the only rehabilitation centre for star tortoises in the country.

About Indian star tortoise

- This species naturally inhabits **scrub forests, grasslands, and some coastal scrublands of arid and semi-arid regions.**
- It is found in northwestern India (Gujarat, Rajasthan) and adjoining southeastern Pakistan; eastern and southern areas from Tamil Nadu, Andhra Pradesh and eastern Karnataka to Odisha and throughout Sri Lanka
- Threats to this species survival include illegal collection and habitat loss.
- Included in Appendix II of the CITES
- **IUCN status: vulnerable**
- Placed under **Schedule IV of the Wildlife (Protection) Act 1972**

About Chinnar wildlife sanctuary

- Chinnar Wildlife Sanctuary is a **unique protected area** located in the rain shadow region in the eastern slope of Western Ghats in **Idukki in Kerala**.
- The area is diverse in eco systems and rich in ethnic cultural heritage.
- It is a well-known repository of **medicinal plants**.
- It supports a population of grizzled giant squirrel, star tortoise, tufted grey langur, gaur, spotted deer, slender loris, wild elephant, crocodile, tiger, leopard and many a birds, insects and plants.

5.13. AMUR FALCON

Why in news?

Amur Falcon were spotted at Umred Karhandla Wildlife Sanctuary near Nagpur.

About Amur Falcon

- Amur Falcons are **the migratory bird** that stay every year at **Doyang lake** (Nagaland) during their flight from Mongolia to South Africa
- **Pangti village** in Nagaland is considered as the world's Amur Falcon capital
- Centre will soon develop the Doyang Lake area as an eco-tourism spot for bird-watchers across the world.
- Until recently, Amur falcons were hunted by Naga tribesmen for meat.

Umred Karhandla Wildlife Sanctuary

- It is situated in **Maharashtra** and is 60 km from Nagpur.
- Umred-Karhandla Wildlife Sanctuary is declared as the **satellite core of Bor Tiger** Reserve by national tiger conservation authority
- It is the first sanctuary in Maharashtra to be declared as 'satellite core', which means a sub-protected area supporting another protected area.

5.14. KENDU LEAVES

Why in news?

Recently there was a demand from Kalahandi district of Odisha to deregulate the trade in kendu leaves.

Background

- At present the Kendu leaves are a **nationalised forest produce in Odisha**, thus its trade monopoly lies with authorised state agencies.
- Gram Sabhas are contesting that they have the "right of ownership, access to collect, use, and dispose of minor forest produce" under Forest Rights Act and kendu leaves are a minor forest produce.
- Further deregulation of trade in kendu leaves is in force in certain districts of Odisha and Maharashtra.

About Forest Rights Act, 2006

This Forest Rights Act, 2006 provides the following:

- **Tenurial Security** and access rights to forest dwellers
- Right to hold and live in forest land under individual or common occupation for habitation or for the self-cultivation for livelihood.
- Right of ownership, access to collect, use and **dispose of minor forest produce** that has been traditionally collected within or outside the village boundaries.
- Other **community rights** such as on fish, water bodies and nistar etc.
- **Rights of settlement** and conversion of forest villages into revenue villages.
- As per this act, **Gram Sabha** plays pivotal role in ensuring the rights of the forest dwellers, **decision making, planning and management for Joint Forest Management**.

Kendu leaves

- It is also known as **East Indian ebony**.
- It is native to India and Sri Lanka and has a hard, dry bark.
- Its common name derives from Coromandel, the coast of southeastern India.
- Locally it is known as temburini or by its Hindi name tendu.
- In Odisha and Jharkhand it is known as kendu.
- The leaves can be wrapped around tobacco to create the **Indian** beedi.

Minor forest produce

- Minor Forest Produce is a subset of forest produce and got a definition only in 2007 when the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, was enacted.
- **Section 2(i)** of the said Act defines a Minor Forest Produce (MFP) as all non-timber forest produce of plant origin and includes bamboo, brushwood, stumps, canes, Tusser, cocoon, honey, waxes, Lac, tendu/kendu leaves, medicinal plants and herbs, roots, tuber and the like.
- Thus, the definition of "minor forest produce" includes bamboo and cane, thereby changing the categorization of bamboo and cane as "trees" under the Indian Forest Act 1927.
- **Also the section 4(m)(ii) of PESA act gives the ownership to gram sabhas over minor forest produce.**

5.15. PRIMROSE WILLOW (LUDWIGIA PERUVIANA)

Why in news?

Ludwigia Peruviana, a plant species is challenging the existence of local vegetation in various swampy areas around the world.

About Ludwigia peruviana

- It is a **native of Central and South America**.
- Its flower is pale yellowish in colour and the plant grows to a height of about 12 feet.
- It is an **aquatic plant**, which is now challenging the existence of local vegetation in various swampy areas around the world.
- The weed flourishes in sandy and mineral rich soil of wetlands.

Environmental concerns

- This weed can damage the marshland plant community and can pose severe competition to the plants in peat-land ecosystems.
- It can **clog natural waterways**, increase sedimentation, results in accumulation of organic matter causing de-oxygenation of water columns, which in turn, can lead to disruption of fresh aquatic organisms.

Presence in India

- The weed was first seen in 1993 in the **Karbi Anglong district of Assam**.

- In recent years, it has grown rapidly in Karbi Anglong and its lowlands.
- In addition to the Northeast, there are reports of this weed spreading in Tamil Nadu, Kerala, the Andaman & Nicobar Islands and West Bengal.
- The pre-monsoon temperature and monsoon rains help this weed grow faster.

5.16. COBRA LILY

Why in news?

The cobra lily, a rare species of lilies was recently rediscovered in the western Nilgiris after 84 years.

About cobra lily

- The cobra lily is a **predatory plant native to Northern California and Southern Oregon.**
- Also called **the California pitcher plant**, it has evolved an astonishing set of adaptations that allow it to trap, kill and digest its animal prey using highly modified pitcher-shaped leaves.
- In India they can be found only in a small area measuring less than 10 square kilometres in the **Nilgiris.**
- The Toda tribals of the Nilgiris, who know the plant well, have an embroidery motif known as the 'podwarshk', which resembles it.
- Cobra lilies are at **a great risk of extinction** from the commercial trade in exotic plants.

5.17. COMBUSTIBLE ICE

Why in news?

Recently Japan and China successfully extracted the combustible ice from the sea floor off their coastlines.

A new fuel source? From ice, fire

Methane hydrates, ice-like chunks loaded with combustible methane, are considered the world's largest untapped source of fossil fuel. A new lab at UC Irvine will investigate the largely mysterious physics of these hydrates. An unrelated test last year on Alaska's North Slope successfully collected methane from hydrates.
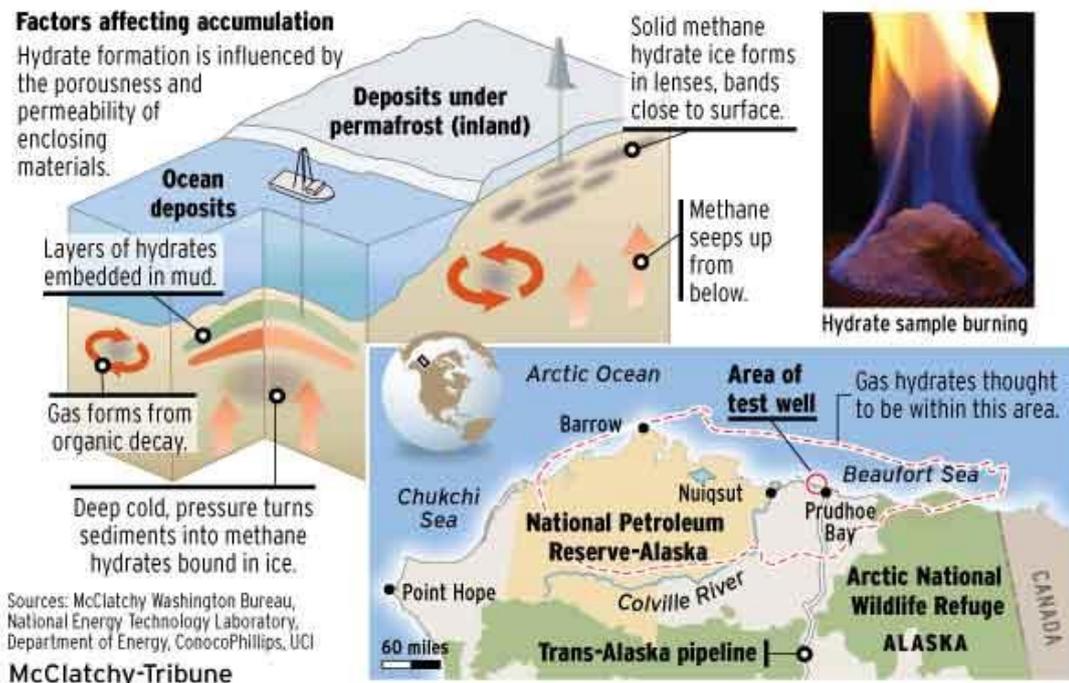
About combustible ice

- Combustible ice is **a frozen mixture of water and concentrated natural gas**.
- Technically known as **methane hydrate**, it can be lit on fire in its frozen state and is believed to comprise one of the world's most abundant fossil fuels.

- Methane hydrate has been **found beneath seafloors** and buried inside Arctic permafrost and beneath Antarctic ice.
- Estimates of worldwide reserves range from 280 trillion cubic metres up to 2,800 trillion cubic metres,, according to the U.S. Energy Information Administration.
- Methane hydrate reserves could meet global gas demands for 80 to 800 years at current consumption rates.
- Yet efforts to successfully extract the fuel at a profit have eluded private and state-owned energy companies for decades.

Environmental concerns

- If methane hydrate leaks during the extraction process, it can increase greenhouse gas emissions.
- The fuel also could displace renewables such as solar and wind power.

5.18. DEGRADATION OF PLASTIC

Why in news?

Recently the larvae of wax moth have been shown to degrade polyethylene into ethylene glycol at a fast rate.

Background

- In a paper published in the journal Current Biology, a team of scientists found that wax worms kept in a polyethylene shopping bag formed holes in about 40 minutes.
- **Wax worms live as parasites in bee colonies**.
- They lay their eggs inside the hives which then hatch and grow eating the beeswax.
- There is a lot of similarity in the chemical structure of polyethylene and beeswax.
- The caterpillars are breaking down the chemical bonds of polyethylene like they do to the beeswax.

Issues

- At the rate of consumption reported by the researchers' one worm gets through about two milligrams of plastic a day.
- Wax moths, if used in large amount can devastate bee hives.
- As plastics are made from hydrocarbons, they can be degraded to generate oils but by using wax worms they are simply digested as waste material.

5.19. E-WASTE

Why in news?

India is the fastest-growing market in the world for smartphones thus posing a threat of effective e waste management.

What is e-waste?

- E-waste" is a popular, informal name for electronic products nearing the end of their "useful life.
- It includes computer and its accessories, monitors, printers, keyboards, central processing units; typewriters, mobile phones and chargers, remotes, compact discs, headphones, batteries, LCD/Plasma TVs, air conditioners, refrigerators and other household appliances.

Effects of E-Waste

Source of e-wastes	Constituent	Health effects
Solder in printed circuit boards, glass panels and gaskets in computer monitors	Lead (PB)	Damage to central and peripheral nervous systems, blood systems and kidney damage. Affects brain development of children.
Chip resistors and semiconductors	Cadmium (CD)	Toxic irreversible effects on human health. Accumulates in kidney and liver. Causes neural damage.

		Teratogenic.
Relays and switches, printed circuit boards	Mercury (Hg)	Chronic damage to the brain. Respiratory and skin disorders due to bioaccumulation in fishes.
Corrosion protection of untreated and galvanized steel plates, decorator or hardner for steel housings	Hexavalent chromium (Cr) VI	Asthmatic bronchitis. DNA damage.
Cabling and computer housing	Plastics including PVC	Burning produces dioxin. It causes Reproductive and developmental problems; Immune system damage; Interfere with regulatory hormones
Plastic housing of electronic equipments and circuit boards.	Brominated flame retardants (BFR)	Disrupts endocrine system functions
Front panel of CRTs	Barium (Ba)	Short term exposure causes: Muscle weakness; Damage to heart, liver and spleen.
Motherboard	Beryllium (Be)	Carcinogenic (lung cancer) Inhalation of fumes and dust. Causes chronic beryllium disease or beryllicosis. Skin diseases such as warts.

E-waste in india

- India has emerged as the **world's fifth largest electronic waste (e-waste) producer**.
- India discards roughly 18.5 lakh tonnes of e-waste each year and telecom equipment alone accounts for 12% of it.
- **The main sources of electronic waste in India are the government, public and private (industrial) sectors,** which account for almost 70 per cent of total waste generation.
- The contribution of individual households is relatively small at about 15 per cent; the rest being contributed by manufacturers.

Issues with e-waste handling

- Only about 5-15% of e-waste is channelled through the formal sector.
- **Lack of awareness on the consumer side**: Most institutional waste generators such as educational institutions and industries, which generate close to 70% of the e-waste, are not aware of the rules and continue to sell their e-waste to the informal sector.
- In the **absence of targets**, and in a relatively lax regulatory environment, producers have little incentive to ensure collection of their used products.
- Lack of scientific methods to handle e waste.

Efforts at international level

- The fundamental aims of the **Basel Convention** are the control and reduction of transboundary movements of hazardous and other wastes including the prevention and minimization of their generation, the environmentally sound management of such wastes and the active promotion of the transfer and use of technologies.
- **The Bamako Convention** on the Ban of the Import into Africa and the Control of Transboundary Movement of Hazardous Wastes aims to protect human health and environment from

> **Electronic Waste (Management and Handling) Rules, 2016**
> - These rules are based on extended producer responsibility (EPR), a popular framework across the world for e-waste management.
> - EPR makes manufacturers of electronic products responsible for the end-of-life management of their products.
> - They have to set up collection centres and ensure that waste is recycled and disposed of in an environment-friendly manner.
> - All collection centres, dismantling units and recyclers must register with state pollution control boards and comply with their norms.

dangers posed by hazardous wastes by reducing their generation to a minimum in terms of quantity and/or hazardous potential.

- **Rotterdam Convention** on the Prior Informed Consent (PIC) Procedure for Certain Chemicals and Pesticides in International Trade regulates trade in hazardous wastes but contains no commitment to reduce their use and release
- The **Waste Electrical and Electronic Equipment (WEEE)** Directive is the European Community directive on waste electrical and electronic equipment which aims at setting collection, recycling and recovery targets for all types of electrical and electronic goods.

Way forward

- India should aim to integrate the large informal sector into the formal waste processing industry
- Researchers at the University of Stanford in the US have now developed a biodegradable, flexible electronic device that could help reduce the amount of e-waste generated globally.

6. SCIENCE AND TECHNOLOGY

6.1. FORTIFIED FOODS TO TACKLE MALNUTRITION

Why in news?

- Targeting children, Rajasthan, MP, Haryana and Himachal Pradesh governments have begun using fortified oil for their mid-day meal schemes.
- West Bengal and A&N Islands are distributing fortified wheat flour through the public distribution system.

Steps taken by FSSAI

- The Food Safety and Standards Authority of India (FSSAI) released a set of standards and a logo last year.
- Since then, it has focused on awareness and consensus building.
- The FSSAI is also working with small local suppliers, for instance local flour grinding mills, to get them to add premixed micronutrients.

Food for thought
Fortification of eatables is aimed at fighting malnutrition

What it means
Fortification is the addition of key vitamins and minerals, such as iron, iodine, zinc, Vitamins A & D, to staple foods such as rice, milk and salt to improve their nutritional content

- The nutrients may or may not have been originally present in the food before processing
- It is a simple, proven, cost-effective and complementary strategy in use across the globe
- The draft Food Safety and Standards Regulations, 2016, prescribe the standards for fortification of salt, oil, milk, and rice

6.2. NEW TRANSGENIC RICE VARIETY TO FIGHT DROUGHT

Why in news?

- A group of **Indian, Chinese and Canadian scientists** have developed a **transgenic rice variety that can withstand severe drought.**

What is it?

- The new variety has been developed by transferring a gene of ***Arabidopsis thaliana***, into a variety of Indian rice called ***samba mahsuri.*** The former is a flowering plant widely used for research purposes.
- The gene is known to be involved in pathways controlling growth and development.
- Putting this gene in the Indian rice **variety increased its height, length of the panicle that encloses the grain, efficiency of photosynthesis, chlorophyll content, and water use efficiency.**
- This transgenic variety performed better than unmodified form in water scarce experiment in laboratory.
- It maintained high chlorophyll content even under drought conditions and thus gave higher yields.

6.3. TARANG SANCHAR PORTAL

Why in News?

- The Telecom Department launched a portal – Tarang Sanchar Portal that will allow people to track radiation emitted from mobile towers within a locality.
- The portal will empower consumers to know about the towers working in a particular area and whether they are compliant to the Electromagnetic field (EMF) emission norms defined by the government.

Background

- launch coincides with the recent SC order on deactivation of a mobile tower in Gwalior on the plea of a cancer patient. The order intensified the debate on health impact of radiation from mobile towers.
- The government said that the mobile tower emissions rules in India are ten times more stringent than the global norms.

6.4. NOVEL MOLECULE TO TREAT CANCER - DISARIB

Why in news

- A novel small molecule, designed and synthesised by Indian researchers, has shown promise in targeted killing of cancer cells.

The molecule - Disarib

- The molecule (Disarib) works by binding itself to a protein called BCL2, which suppresses the death of cancerous cells while sparing normal cells.
- While BCL2 protein is produced in excess in cancer cells, its expression is almost undetectable in normal cells. Hence, Disarib targets and kills only cancer cells.
- Unlike the FDA-approved BCL2 inhibitor ABT199, Disarib showed better efficiency in killing cancer cells. Also, compared with ABT199 inhibitor, the small molecule did not cause any side effects.

Issue

- Expression of BCL2 is low in certain cancer cell lines such as breast cancer, chronic myelogenous leukemia and cervical cancer. So the Disarib molecule would be ineffective in these cancers.

6.5. REVERSING DRUG RESISTANCE MADE POSSIBLE

Why in news?

- Indian Researchers have been able to reverse antibiotic resistance in E. coli (Escherichia coli).
- They have unravelled the mechanism by which hydrogen sulphide (H_2S) gas produced by bacteria protects them from antibiotics and plays a key role in helping bacteria develop drug resistance.

The mechanism of antibiotics resistance

- Antibiotics kill by increasing the levels of reactive oxygen species (oxidative stress) inside bacterial cells. So any mechanism (here H_2S gas) that detoxifies or counters reactive oxygen species generated by antibiotics will reduce the efficacy of antibiotics.
- The drug-resistant strains were naturally producing more hydrogen sulphide compared with drug-sensitive E. coli and by blocking/disabling the enzyme that triggers the biosynthesis of hydrogen sulphide in bacteria, the researchers, have been able to reverse antibiotic resistance in E. coli bacteria.

6.6. BREAKTHROUGH IN TB TREATMENT

Why in news?

- A team of Indian researchers had been able to achieve 100-fold reductions in TB bacterial load in a lab experiment on mice using the compound named ***berginin.***

What is it?

- Berginin is a **phytochemical** isolated from tender leaves of **sakhua or shala tree (Shorea robusta).**
- It **modulates the immune system to kill the bacteria** inside the macrophages.
- However, it was also concluded that the compound failed to kill the bacteria when used directly but was effective when used as an agent to modulate the immune system to act upon it.

Significance

- As the compound does not directly attack the TB bacteria therefore it can be used in patients with drug-resistant TB as well.
- The compound has been shown to heal wounds faster than conventional drugs.
- If used in combination with other TB drugs, the compound can shorten the duration of treatment and prevent the emergence of drug resistance.

6.7. HOME GROWN VACCINE FOR LEPROSY: MYCOBACTERIUM INDICUS PRANII

Why in News?

- National Institute of Immunology has developed Mycobacterium Indicus Pranii (MIP), an indigenous vaccine for leprosy.

What is Leprosy?

- Bacterial disease caused by Mycobacterium leprae,
- Affects the skin and peripheral nerves.
- Long incubation period generally 5-7 years.
- Timely diagnosis and treatment of cases, before nerve damage has occurred, is the most effective way of preventing disability.

Highlights

- India has been declared Leprosy free country in 2005 because of less than one case per 10,000 population.
- However, about 60% of the global leprosy patients live in India and Annual New Case Detection Rate (ANCDR) stands at 9.71 per 1,00,000 population.
- MIP will be administered as prevention for people living in close contact with those infected by the bacteria.
- MIP is now being introduced into the **National Leprosy Elimination Programme (NLEP)**. It will boost the immune system against the bacterial disease.

6.8. DEEP OCEAN MISSION

Why in news?

- **Ministry of Earth Sciences** is set to launch 10,000 crore **"Deep Ocean Mission"** to study and harness the mineral resources beneath the ocean floor by January 2017.

Background

- India boasts of 7500 km of coastline and 2.4 million square km of exclusive economic zone.
- The program on **Polymetallic nodules** was initiated at CSIR-NIO (National Institute od Oceanography) with the collection of the first nodule sample from Arabian Sea on board the first Research Vessel **Gaveshani on 26 January 1981**.
- India was the **first country in the world to have been given the Pioneer Area for exploration of deep-sea mineral viz. Polymetallic nodules** in the Central Indian Ocean Basin in 1987 under the **UN Law of the Sea**.

> **Polymetallic Nodules**
> - Also known as **manganese nodules**, they are largely porous nodules found in abundance carpeting the sea floor of world oceans in deep sea.
> - Besides **manganese and iron**, they contain **nickel, copper, cobalt, lead, molybdenum, cadmium, vanadium, titanium**, of which nickel, cobalt and copper are considered to be of economic and strategic importance.

About Deep Ocean Mission

- It will also involve the **Department of Science and Technology and the Department of Biotechnology.**
- Major components of the project are deep **ocean energy, desalination plant along the Chennai coast, deep sea science and fisheries, minerals and polymetallic nodules.**
- The exclusive economic zone allotted to India will be covered under the mission.

6.9. THIRD GRAVITATIONAL WAVE DETECTED

Why in news?

The Laser Interferometer Gravitational-wave Observatory (LIGO) detectors in the U.S. have detected another merger of two black holes.

Importance

- This marks the third confirmed detection of gravitational waves coming from a binary black hole merger. It is of great importance because it confirms a pattern.
- The detection has revealed not merely a black-hole merger but also the alignment of the spins of the black holes. This can shed light on the way the black holes might have formed.
- The observation also supports Einstein's General Theory of Relativity. According to this theory, gravitational waves, unlike light waves, will not disperse as they travel through space.

> **Gravitational waves** are distortions or 'ripples' in the fabric of space-time caused by some of the most violent and energetic processes in the Universe. These ripples travel at the speed of light through the Universe, carrying with them information about their cataclysmic origins, as well as invaluable **clues to the nature of gravity** itself.

6.10. NASA'S NEW FRONTIERS PROGRAMME RECEIVES 12 MISSION PROPOSALS

Why in news?

- NASA's New Frontiers program, which organises robotic solar system missions of discovery costing up to $1 billion, has received 12 proposals for missions to a variety of destinations.

The New Frontiers Programme

- The New Frontiers strategy is to explore the solar system with frequent, medium-class spacecraft missions that conduct high-quality, focused scientific investigations designed to enhance our understanding of the solar system.
- This would be the fourth mission in the New Frontiers portfolio. Its predecessors are the New Horizons mission to Pluto, the Juno mission to Jupiter, and OSIRIS-Rex.

6.11. XFEL (WORLD'S BIGGEST X-RAY LASER) GENERATES FIRST X-RAY LASER LIGHT

Why in news

- European XFEL, the world's biggest X-ray laser has generated its first beam of light.
- The X-ray laser light was generated from an electron beam from a superconducting linear accelerator. In a 2.1 km long accelerator tunnel, the electron pulses were strongly accelerated and prepared for the later generation of X-ray laser light.

About XFEL

- The European XFEL is the largest and most powerful of the five X-ray lasers worldwide, with the ability to generate the short pulses of hard X-ray light.
- It is 3.4-kilometre-long and most of it is located in underground tunnels in Germany.
- The X-ray light has a wavelength of 0.8 nanometre – about 500 times shorter than that of visible light.

Possible Benefits

- The achievable laser light wavelength corresponds to the size of an atom, meaning that the X-rays can be used to make pictures and films of the nanocosmos at atomic resolution – such as of biomolecules, from which better understanding of the basis of illnesses or the development of new therapies could be developed.
- The facility will enable research into chemical processes and catalytic techniques, with the goal of improving their efficiency or making them more environmentally friendly; materials research; or the investigation of conditions similar to the interior of planets.

6.12. EMERGING SOURCES OF ENERGY

Why in new?

With the increasing growth of wind and solar energy in the recent decade, other sources such as hydrogen, ocean cold fusion, etc. are showing promising results for future.

Background

- Wind and solar energy account for 7% of the country's electricity production which is quite small, and also their supply is intermittent
- Coal, on the other hand, while still being the dominant player is a source of pollution and global warming, and it is also consumes lot of water.

Hydrogen as fuel cells

- A fuel cell enables hydrogen and oxygen to blend in an electrochemical reaction. The result is production of electricity, water, and heat. They mimic batteries.

- Hydrogen as a pure gas is not easily available is the major impediment making it very costly source of energy

Ocean Energy

- There are three subsets of this 24x7 energy source — waves (including up-down bob of the water surface), tides and underwater currents.
- For tidal energy- To harness it, difference of at-least 16 feet between high and low tide is needed which is a major impediment.
- Waves generated by wind and currents could contribute significantly to a carbon neutral energy system but this is mainly at its developmental stage

Cold Fusion

- Cold fusion describes a form of energy generated when hydrogen interacts with various metals like nickel and palladium. Excess heat is generated by the interaction that can be used to turn the turbine.
- No radioactive materials are used in cold fusion and cold fusion makes no radioactive waste.
- The major challenge is to control the reaction.
- But they are very small, relatively simple, inexpensive and self-contained form of energy.

6.13. VAJRA

Why in news?

- According to the Ministry of Science and Technology and Earth Sciences, more than 1000 Indian scientists working abroad have returned to India in the last 2-3 years.

Background

- The govt. of India recently launched **VAJRA (Visiting Advanced Joint Research) faculty scheme** to enable NRI and overseas scientists community to participate and carry out R&D in the country.
- The **Science and Engineering Research Board (SERB)**, a statutory body of the Department will implement the Scheme.
- International Faculty / scientists/technologists including Non-resident Indians (NRI) and Persons of Indian Origin (PIO) / Overseas Citizen of India (OCI) are offered **adjunct / visiting faculty positions in Indian Institutions / Universities for a period of 1-3 months under this scheme.**
- The faculty can also undertake the role of teaching /mentoring apart from R&D.
- Public funded institutions and national laboratories are allowed to host the VAJRA faculty.

6.14. EXTRA LAYER OF TECTONIC PLATE DISCOVERED

Why in news?

- A team of researchers have found a hidden new layer of tectonic plate subducted into the mantle.

More on the discovery

- The discovery has been made possible through **3D mapping of the vibrations recorded during earthquake.**
- Researchers believe that the newly discovered layer moved into the mantle millions of years ago and exists in a **transition zone that lays 440-660km** under the surface.
- The movement of these plates may be able to explain a series of Earthquakes known as **Vityaz earthquake** which originated in the mantle between **Fiji and Australia.**

Significance

- Such discovery can help locate subducted tectonic plates lurking within the mantle and then to reconstruct the surface of earth as it was millions of years ago.
- It can help predict future seismic activity more accurately.

6.15. WORLD'S THINNEST HOLOGRAM

Why in news?

- Australian scientists have created the world's thinnest hologram that can be seen without 3D goggles.

More About the Hologram

- The nano- hologram is 1000 times thinner than human hair and can be integrated with modern electronics such as smartphones, computers, and TVs.
- It has been created by using a simple laser-writing technology.

Applications of Holographic Technology

- **In medicine** – Holographic imaging is used in the field of medicine to create a 3D image of a certain interior part of a patient's body (such as the heart) and project it in real time.
- **Tradeshows** – It is highly useful in tradeshows as a holographic display can help launch and present a product without bearing transporting costs.
- **Holographic Telepresence** – Prominent personalities have used it to address people at different places simultaneously keeping the personal connect intact through telepresence.
- **Engineering and Architecture** – Displaying 3D holographic models of buildings and engineering designs gives a real time experience.

7. SOCIAL

7.1. MISSION INDRADHANUSH

Why in news?

- PMO (Prime Minister Office) had advance the deadline of **Mission Indradhanush** from 2020 to 2018.
- PMO will review the mission through multi-modal platform **PRAGATI (Pro-Active Governance and Timely Implementation)** platform.

Mission Indradhanush

- It is a strategic endeavour under Universal Immunisation Programme 1985.
- It targets to immunize **all children below two years** of age **either unvaccinated, or are partially** vaccinated as well as **all pregnant women**.
- Immunisation against **seven vaccine** preventable diseases namely; Diphtheria, Pertussis, Tetanus, Childhood Tuberculosis, Polio, Hepatitis B and Measles.
- Moreover, Vaccines for Japanese Encephalitis, Haemophilus influenza type B, inactivated polio vaccine, Rotavirus vaccine and Measles Rubella vaccine are also being provided in selected states.
- Mission is technically supported by WHO, UNICEF, Rotary International and other donor partners.

> **PRAGATI (Pro-Active Governance and Timely Implementation)**
>
> - It is an integrating and interactive platform aimed at addressing common man's grievances, and simultaneously monitoring and reviewing important programmes.
> - It uses Digital data management, video-conferencing and geo-spatial technology.
> - It is a three-tier system - PMO, Union Government Secretaries, and Chief Secretaries of the States.

> **Universal Immunisation Programme 1985**
>
> - The UIP provides free of cost vaccines to all children during the first year of life.
> - To protect them against **12 life threatening diseases**: tuberculosis, diphtheria, pertussis (whooping cough), tetanus, poliomyelitis, measles, Hepatitis B, Diarrhoea, Japanese Encephalitis, rubella, Rotavirus and **Pneumonia** (added in May 2017).
>
> **Pneumonia vaccine**
>
> - India accounts for nearly 20% of global pneumonia deaths.
> - Pneumococcal conjugate vaccine (PCV) will give protection against 13 types of pneumococcal bacteria.

7.2. EVIN PROJECT

Why in news?

Electronic vaccine intelligence network (eVIN) project of Ministry of Health and Family Welfare has been lauded by various developing countries.

About eVIN

- eVIN is an indigenously developed technology system in India that digitises vaccine stocks and monitors the temperature of the cold chain through a smartphone application.
- The technological innovation is implemented by the United Nations Development Programme (UNDP).
- By streamlining vaccine flow network, it strengths health systems by easy and timely availability of vaccines.

Some achievements

- Implemented in 371 districts in 12 states, Digitized vaccine inventories and record-keeping at nearly 10,500 vaccine stores and cold chain points.
- Achieved a regular reporting rate of more than 98 percent from these vaccine storage points.
- Monitored more than one –fourth of all the Mission Indradhanush districts as National Monitors and collected information on baseline and follow up coverage rates.

7.3. LABOUR MINISTRY: SOCIAL SECURITY SCHEMES

Why in News?

- Minister of State for Labour and Employment, launched two schemes namely; **One IP- Two Dispensaries** and **Aadhaar based Online Claim Submission**.

Highlight of the Schemes

- Two Dispensaries schemes of **ESIC** has given an option to an Insured Person (IP) to choose two dispensaries, one for self and another for family through an employer.
- It will benefit all IPs, especially migrant workers who are working in other than home State.
- Moreover, Aadhaar based online Claim Submission scheme will provide an easy PF (Provident Fund) final settlement under **EPFO**.

What is EPFO (Employee Provident Fund Organisation)?	What is ESIC (Employee State Insurance Corporation)?
- It is statutory body under ministry of Labour and Employment implementing retirement benefit scheme that's available to all salaried employees. - EPF scheme is applicable to establishments employing 20 or more persons. - **Does not apply to** the co-operative societies employing less than 50 persons and the organisation who have their own EPF scheme but supervisor rest with EPFO.	- It is a statutory, autonomous corporation under ministry of Labour and Employment Established in 1948. - It implements medical and cash benefits to employee of organised sector against the events of sickness, maternity, disablement and death due to employment injury. - Applicable to all the States except Manipur, Sikkim, Arunachal Pradesh and Mizoram. - Mandatory for non-seasonal factories employing 10 or more persons and establishments employing 20 or more persons in certain states.

7.4. NEED FOR NATIONAL POLICY ON THALASSEMIA

Why in News?

- On World Thalassemia day (May 8) various researchers and health experts called for National Policy on Thalassemia.

Why National Policy is needed?

- India has highest thalassemia carriers - 40 million carriers and over 1,00,000 thalassaemia majors under blood transfusion every month.
- Thalassaemia is now considered as a **disability** under Rights of Persons with Disabilities Act 2016, rather than a **health issue**.
- National Health Policy 2017 has overlooked the rare and genetic disease that is huge burden on public exchequer.

> **What is Thalassemia?**
> - It is a genetic blood disorder with no cure except bone marrow transplant (BMT).
> - Characterised by abnormal production of haemoglobin in the body. The abnormality results in improper oxygen transport and destruction of red blood cells.
> - Lead to iron overload, bone deformities and in severe cases can cause heart diseases.
> - It requires regular blood transfusions as an effective measure to prolong life.

7.5. PAN INDIA IMPLEMENTATION OF MATERNITY BENEFIT PROGRAM

Why in news?

The Union Cabinet has given ex-post facto approval to Pan-India implementation of Maternity Benefit Program which now has been extended to all districts of the country.

About the scheme

- **Objectives**
  - To provide **partial compensation for the wage loss** in terms of cash incentives so that the woman can take adequate rest before and after delivery of the first living child.
  - The cash incentives provided would lead to improved health seeking behaviour amongst the **Pregnant Women and Lactating Mother (PW&LM)** to reduce the effects of under-nutrition namely stunting, wasting and other related problems.
- **The cash benefit is Rs.6000 and would be provided by DBT mode**.
- **Target Group** - All eligible PW&LM, excluding the PW&LM who are in regular employment with the Central Government or State Government or Public Sector Undertakings or those who are in receipt of similar benefits under any other law.

7.6. GENITAL MUTILATION

Why in news?

The SC sought response from the Centre and four states on a PIL seeking ban on female genital cutting (FGM)

Background

- It is also called khatna and commonly practised by Dawoodi bohras, a Muslim sect, in India.
- The custom is inflicted on young girls, when they are six or seven-year old.
- Carried out mostly by untrained midwives, it involves cutting off the clitoral hood, in the belief that it will curb a women's sexual drive.
- **FGM is banned in 24 African countries.** Many western countries, including UK and US have also outlawed it.
- **In December 2012, the UN General Assembly adopted a unanimous resolution to eliminate the practice.**

Provisions in India

- Section 320 (causing grievous hurt), 323 (punishment for voluntarily causing hurt), 324 (voluntarily causing hurt by dangerous weapons or means), 325 (punishment for voluntarily causing grievous hurt) of IPC can curb such practices.
- Section 3 & 5 (committing penetrative sexual assault on a child), Section 9 (aggravated sexual assault) and 19 (reporting an offence) of POSCO ACT can also abolish violent acts like FGM.

Way forward

To end such forms of violence against women awareness generation is required with the help of NGOs and by using medical explanation of harmful effects of such physical practices.

7.7. SWACHH SURVEKSHAN 2017: INDORE CLEANEST CITY

Why in News?

- On May 4 2017, Ministry of Urban Development has released the finding of Swachh Survekshan 2017.

Highlights

- it was conducted by **Quality Council of India** in 434 cities and towns to monitor the progress of the Swachh Bharat Mission.
- Indore has been declared the cleanest city in India and Bhopal ranked second.
- Gujarat has the highest number with 12 of its cities among the top 50 clean cities followed by Madhya Pradesh with 11 cities.

> **Quality Council of India**
> - It was set up jointly by the Government of India and ASSOCHAM, Confederation of Indian Industry (CII) and FICCI
> - Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, is the nodal ministry for QCI.
> - Provide right and unbiased information on quality related standards
> - Represent India's Interest in International forums.

> **Swachh Survekshan – 2017** - Aimed at capturing the outcomes of efforts towards:
> - Open Defecation Free
> - Door-to-door collection of garbage
> - Processing and disposal of Municipal Solid Waste.

7.8. GLOBAL BURDEN OF DISEASE STUDY

Why in news?

Newborns in India have a lesser chance of survival than babies born in Afghanistan and Somalia, according to the latest Global Burden of Disease (GBD) study published in the medical journal The Lancet.
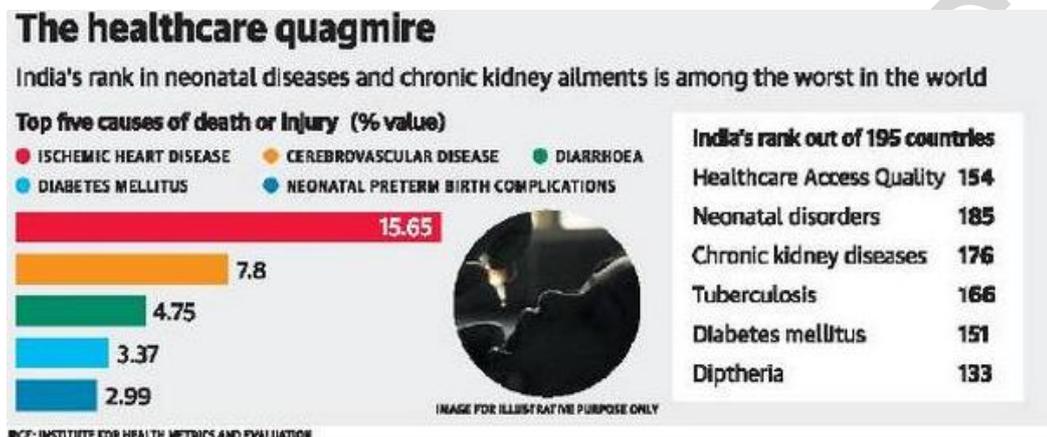
Highlights of study

- In the GBD rankings for healthcare access and quality (HAQ), India has fallen 11 places, and now **ranks 154 out of 195 countries**.
- Further, India's healthcare index of 44.8 is the lowest among the sub-continental countries, as Sri Lanka (72.8), Bangladesh (51.7), Bhutan (52.7), and Nepal (50.8) all fared better.
- In the case of neonatal mortality, on a scale of 1 to 100, India scored 14 in the HAQ index, while Afghanistan scored 19/100 and Somalia, 21/100.

- Access to tuberculosis treatment in India was scored lower than Pakistan, Congo and Djibouti.
- India's downward slide in the rankings indicates that it has failed to achieve health care targets, especially those concerning neonatal disorders, maternal health, tuberculosis, and rheumatic heart disease.

About the study

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

The healthcare quagmire

India's rank in neonatal diseases and chronic kidney ailments is among the worst in the world

Top five causes of death or injury (% value)

- ISCHEMIC HEART DISEASE
- CEREBROVASCULAR DISEASE
- DIARRHOEA
- DIABETES MELLITUS
- NEONATAL PRETERM BIRTH COMPLICATIONS

	15.65
	7.8
	4.75
	3.37
	2.99

IMAGE FOR ILLUSTRATIVE PURPOSE ONLY

India's rank out of 195 countries	
Healthcare Access Quality	154
Neonatal disorders	185
Chronic kidney diseases	176
Tuberculosis	166
Diabetes mellitus	151
Diptheria	133

SRCE: INSTITUTE FOR HEALTH METRICS AND EVALUATION

7.9. INSTITUTIONS OF EMINENCE

Why in news?

India has taken a firm step towards building 20 world-class educational institutions, which will be termed **Institutions of Eminence**.

Features of such institutions:

- It should preferably be **multi-disciplinary** and have both teaching and research focus of an exceptionally high quality.
- Apart from the regular courses, it should also offer various **inter-disciplinary courses**, including in areas of emerging technology as well as those relevant to the development concerns of countries like India.
- There should be a **reasonably good mix of domestic and foreign students**.
- There should be a **transparent merit based selection in admissions**, so that the focus remains on getting meritorious students.
- The **faculty student ratio** should not be less than **1:10** after three years of declaration
- It should have student amenities comparable with that of globally reputed institutions.
- The Institution should have reasonably **large owned campus** with adequate space for expansion etc.

Institutions of eminence

- **The UGC (Institutions of Eminence Deemed to be Universities) regulations, 2017** will govern all such institutions, ensuring their complete academic, administrative and financial autonomy.
- These regulations will **override all other UGC regulations** and free the institutions of UGC's restrictive inspection regime, the regulatory control over fee and curriculum.

Issues with Institutions of eminence

- Such institutions though out of control of UGC can still face political interference and red-tapism.
- In the long run maintenance of such institutions with proper quality standards would be an issue.
- To sustain such institutions quality teachers would be required but at present there is lack of attraction for teaching among educated youth.

- The issue of brain drain also needs to be tackled post completion of education from such institutions.

Way forward

- The recent initiative of the government to establish **Higher Education Finance Agency** is the step in right direction to check resource crunch in higher education institutions.
- Further focus in higher education should be on access, quality and equity.

WHAT WILL MAKE INSTITUTIONS 'EMINENT'

RESERVATION POLICIES will apply only to govt institutions conferred the status

THE INSTITUTIONS WILL BE multi-disciplinary but unitary, meaning they will not affiliate with colleges or use the word 'university' for description

ELIGIBILITY CRITERIA

For existing pvt institutions, initial corpus fund of ₹60 cr to be hiked to ₹150 cr in 10 years

For greenfield institutions, an initial corpus of ₹60 crore to be hiked to ₹150 crore in a decade

Institution to be accredited by NAAC or its international equivalent

SELECTION NORMS

NO UGC INSPECTION FOR these institutions, which will follow a disclosure-cum-review mechanism with the review by the EEC, which may rope in foreign experts. EEC will review the institutions once in three years for adherence to their implementation plan until they achieve the top 100 global ranking slot for two consecutive years

FAILURE TO MEET GOALS could mean withdrawal of any or all additional incentives given to an institution or replacing the status to ordinary deemed to be university status affiliated to a state university

8. CULTURE

8.1. BASAVA JAYANTI

Why in news?

- **Basavanna Jayanti or Basava Jayanti** which marks the 884th birth anniversary of 12th century social reformer **Basaveshwara** was recently celebrated in Karnataka.

About Basaveshwara

- He is considered to be the founder of **Lingayatism or Lingayat Sect or Veerashaivism**.
- He was responsible for sweeping social changes in Karnataka during 12th century.
- He stood for the upliftment of the downtrodden and fought the evils that had crept into the Brahmanic Vedic tradition.
- He scripted his practical experiences in a novel form of literature called – **Vachana (poetry).** The main aim of Vachana (poetry) movement propagated welfare for all.
- He heralded the establishment of **'Kalyana Rajya' (Welfare state)**
- He gave two important and innovative concepts called "Sthavara ''and "Jangama'', the meaning of which is "Static'' and ''Dynamic'' which are the main foundation stones of the revolutionary ideology of Basavanna.

8.2. SAINT TYAGRAJA

Why in news?

- Recently the 250th birth anniversary of Saint Tyagraja was celebrated.

About Saint Tyagraja

- Saint Tyagraja is one of the principal composers of the Carnatic trinity along with along with Muthuswami Dikshitar and Syama Sastri.
- He is referred to as Thyagabrahmam.
- Tyagaraja was born on 14th May 1767 in the village of Thiruvayaru in the Thanjavur district of Tamil Nadu.
- With the influence of Ramayana, he became an ardent devotee of Lord Rama. He composed about 24000 songs in his life devoted to Lord Ram.
- Tyagaraja Aradhana, a music festival conducted in honour of Tyagraja is organized in Thiruvaiyaru between the months of January and February every year.

8.3. RAJA RAM MOHAN ROY

Why in news?

Recently, the 245th birth anniversary of Raja Ram Mohan Roy was celebrated.

About Raja Ram Mohan Roy

- Prominent figure behind the socio-cultural awakening of India in the 19th century.
- Born on 22nd May, 1774. He died on 27th September, 1833.
- He is also known as "**Maker of Modern India", "Father of Modern India" and "Father of the Bengal Renaissance"**.
- The title **"Raja"** was given to him by the Mughal emperor Akbar Shah II.
- He fought against **sati, child marriage and the prohibition of widow remarriage.**
- In August 1828, he founded the Brahmo Sabha which later came to be known as **Brahmo Samaj**. It was the culmination of his earlier Atmiya Sabha of 1814.
- The Brahmo Samaj championed the **worship of one god and brotherhood and interdependence.**
- He wanted to combine the goodness of western ideals and the Indian culture.
- He setup the **Hindu College** in Calcutta in 1822.
- He published in different languages, like - **Sambad Kaumudi and Mirat-ul-Akbar**.

8.4. THAKURANI JATRA FESTIVAL

What is it?

- The month long festivities of the Thakurani Jatra festival recently concluded in the city of Behrampur.

About the Festival

- Thakurani Jatra festival is a **biennial festival** celebrated in the **city of Behrampur (the silk city), Odisha.**
- Also known as **Ghata Yatra,** it is the chief festival of Southern Odisha.
- The festival marks the worship of Maa Buddhi Thakurani who is considered the **protector** of Behrampur.
- Originally the Deras, a weaver community, worshiped the goddess.

8.5. BANGANAPALLE MANGO

Why in news?

- **Registrar of Geographical Indications Registry (RGIR)** granted the Banganapalle Mango and **Bandar Laddu** the geographical indication (GI) tag, both belonging to Andhra Pradesh.

What is GI tag?

- The GI tag is an indication that is definite to a **specific geographical territory**. It is used for agricultural, natural and manufactured goods having special quality and established reputation.
- For a product to get the tag, it needs to be produced or processed or prepared in that region.
- The GI tag is governed by the **Geographical Indications of Goods (Registration and Protection Act), 1999.**
- This Act is administered by the Controller General of Patents, Designs and Trade Marks, who is also the Registrar of Geographical Indications.
- The registration of a GI is valid for 10 years after which it needs to be renewed.

8.6. YAKSHAGANA DANCE FORM

Why in news?

Yakshagana artist Surikumeri K. Govinda Bhat has been chosen for the **Kendra Sangeet Natak Academi Award 2016** which carries a prize of ₹1 lakh, besides a **Tamrapatra and Angavastram**.

About Yakshagana

- It is a **folk dance** of Karnataka.
- It is a **fusion of dance and drama.**
- Stories are depicted from the epics of Ramayana, Mahabharata and Purana are performed on stage.
- A narrator narrates the story along with musicians playing traditional instruments while actors enact the story.

9. ETHICS

9.1. WORLD PRESS FREEDOM DAY

Every year, the fundamental principles of press freedom are celebrated on 3rd may, as proclaimed by UNGA in 1993.

Why media ethics or press freedom is important?

- Watchdog of democracy
- Crucial for development and protecting all human rights
- Enabling voice of common man to be heard and access to information for the community
- Paying special attention to areas and countries undergoing conflict, post-conflict, and transition situations.
- Preventing escapist approach and attitude in the minds of governments at various levels in various countries.

Various ethical issues involved in press

The world press freedom report shows that there has been a deep and disturbing decline in respect for media freedom at both the global and regional levels. Although there are various issues concerning the media, they can be summarized under one word, i.e., "**freedom**" of press to collect and disseminate news in a truthful manner. However, there is other side to this issue as well, which is **responsibility** of media. Thus, various values and norms should be followed from both sides.

Norms to be followed by politicians/organizations controlling/analyzing media

- **Freedom of expression** – It is seen as an inalienable human right which is more important for a person in profession of journalism. He/She needs to make sure that the masses are informed about the true picture of events happening around the world.
- **Security and safety of media persons** – Adequate mechanisms should be in place to prevent harassment of editors, publishers etc. and attacks and loss of lives of journalists while pursuing their profession. System should be strengthened to penalize the concerned person sternly so that resulting self-censorship from violence does not deprive society of information
- **Culture of tolerance and openness** - Restrictions on publications such as censorship, fine, suspension and closing down should be taken only when extremely required. In fact, people in authority should encourage questioning by journalists regarding their actions to promote transparency and accountability
- **Rules to prevent corporatization** of media because corporatization has led to worrying about profit and loss. Thus, issues such as contract appointments becoming the norm, controlling journalists through transfer and salary, no job protection in the visual media etc. are cropping up

Norms and ethics to be followed by media persons

- **Understanding their responsibility** – especially in countries like India, plagued with backward ideas such as casteism, social evils such as honour killing, poverty etc.
- **Accuracy, honesty and fairness** – in collection and publication of news because it is directly related to public interest and at times, may affect the reputation of a person unnecessarily
- **Truthfulness**– Efforts should be made to present facts without distortion of news especially in this post-truth world where element of truth are mixed up with certain elements of untruth to create sensation
- **Representativeness and diversity** - Editors should curb paid news and the organization should promote opinions from all sections of society (ethnic and linguistic minorities, persons with disabilities, women etc.) equally without discrimination. For this, internal diversity is required.
- **Focus on real problems** and not non-issues such as those concerning the activities of film stars, cricketers etc. and give more prominence to more important issues that are socio-economic in nature.
- **Professionalism and self-regulation –** in areas such as content and use of audits (both qualitative and quantitative), ethical codes, professional secrecy regarding source of information, non-plagiarism and sector-led performance assessment based on specific targets.
- **Respect for privacy** and people's private lives and no defamatory criticism should be made unless required through legitimate perception of the public interest.

- **Promotion of values** – as they leave imprint on the young minds. Thus there should not glorify power, brutality and immorality.

Situation in India

India ranks low at 133 among 180 countries in World press freedom index 2016 (released by Reporters without Borders (RSF) based in Finland), despite jumping 3 spots up compared to last year. The Indian media is grappling with various issues such as

- Attack on Journalists and bloggers by various religious groups that are quick to take offense
- Restricted access to certain regions such as Kashmir that are regarded as sensitive by the government
- Indifference to these threats and problems in higher echelons of government
- No mechanism for protecting journalists etc.

> **About Reporters Without Borders (RWB)**
> - Located in Paris, France It is an international non-profit, non-governmental organization that promotes and defends freedom of information and freedom of the press.
> - The organization has consultant status at the United Nations.
> - It compiles the **World Press Freedom Index** every year that ranks 180 countries according to the level of freedom available to journalists.

Way forward

Following steps can be taken to ensure media freedom as well as their accountability

- **Promotion of community media** – It ensures media pluralism and freedom of expression and an alternative to public, commercial and social media with greater focus on local issues of concern, accountability to community covering rural and hard-to-reach populations as well. Thus governments should ensure legal recognition, fair access to spectrum, licensing, funding etc.
- **Promotion of active media watch groups** - as India is among the few democracies without such groups engaged in objective analyses of the media and subjecting the media to systematic criticism and scrutiny.
- **Promotion of media writing about media itself** - there is often an unstated rule that prevails: media doesn't write on media and media organizations won't write about each other, either in praise or in criticism. Most Indian newspapers also don't have an open policy on acknowledging mistakes or misreporting.

9.2. LEGALISING GAMBLING

Law commission in 2016 was given direction by SC in BCCI Vs Cricket Association of Bihar case to examine the possibility of legalizing gambling and betting in India. The Chairman of Law commission, recently, has drawn attention to the need of examining the social, economic and moral implications of the same.

Legalizing betting and gambling is being favored by certain sections due to the following reasons

- **Economic impact** - It will help the government earn substantial revenue, generate employment and boost tourism. For example – Sikkim
- **Increase transparency** - It would bring gambling out from the dark corners of the society and impose some controls. It will also reduce black money market in these activities
- **Social expenditure** – As this is a thriving economic sector, it could create revenue for the government to invest in other social sectors as well
- **Curbing illegal betting** - once betting is legalised, licensed bookies will help the police to stop illegal betting.

Despite the above advantages, whether this passes the keystone test of being "morally correct" remains an issue. This is in line with the basic right of individual liberty but there are various ethical dilemmas associated with this issue as well such as:

- **Protecting poor** - Protection of the poor sections of society, who are more prone to indulge in gambling and betting for quick money making
- **Protecting children** – It is difficult to regulate the age of gamblers in this age of online gambling. It's often impossible to know age of people visiting sites, potentially allowing underage kids to be exposed
- **Sports ethics** - If betting on cricket is legalized, it could lead to *unfair and unclean* games.
- **Societal order and morality** - Legalising this activity might adversely affect the social fabric of India as people in a bid to earn quick money through gambling might resort to unlawful means.

- **Social stigma** - Indian society attaches stigma with it. Also, there is little that can be done to safeguard against bankruptcy.
- **Addiction** – impacts economic and social life due to worsening of living standards of poor and lower middle class.
- **Increased crime** due to loan sharking (taking loans at exorbitant rates for gambling) etc. which at times leads to resorting to violence by lenders.

However, most of these adverse effects arise not from gambling but excessive gambling which results in addiction. Thus, this activity should be regulated effectively and efficiently if legalized. Enforcement is weak in India as the business of sport betting exists, despite the ban. Thus, some cautions need to be taken. For example

- It should only be allowed online not on store-fronts to ensure transparency.
- There should be higher standard of capital adequacy for the book makers
- Part of the revenues should be set aside specifically to assist with problem gamblers.
- Part of the revenue should be allocated to ensure fair competition and clean sport.

10. MISCELLANEOUS

10.1. 2016 INDIAN EXCLUSION REPORT (IXR)

- The 2016 Report released by Center of Equity Studies reviews exclusion with respect to four public goods: pensions for the elderly, digital access, agricultural land, and legal justice for undertrials.
- Most severely and consistently excluded from provisioning tend to the same historically disadvantaged groups: Dalits, Adivasis, Muslims, and persons with disabilities and age-related vulnerabilities.

10.2. PUBLIC AFFAIRS INDEX

Why in News?

- Recently, Public Affairs Index 2017 came out which ranked the Indian states in terms of various parameters like governance, physical and social infrastructure etc.

Background

- It was **started in 2016 by Public Affairs Centre (PAC), India**. **PAC**, headquartered in Bangalore, is a **not for profit think tank** which aims to improve the governance in India.
- The **survey has been based on 10 themes**, 26 focus subjects and 82 indicators. It covered a wide range of themes such as essential infrastructure, support to human development, social protection, women and children, crime, law and order, delivery of justice, environment, transparency and accountability, fiscal management and economic freedom.

Findings

- **Kerala and Tamil Nadu** have maintained their first and second position as in 2016 in 2017 followed by Gujarat, Karnataka and Maharashtra.
- The last four positions are with **Assam, Odisha, Jharkhand and Bihar**.

10.3. GRIEVANCE REDRESSAL APP FOR CAPF

- The Union home ministry has recently launched a grievance redressal mobile app for the Central Armed Police Forces (CAPF).
- It will give soldiers a direct line of contact with home ministry and if there is delay or lag, the matter could be escalated to Home minister as well.
- It will help increase transparency and avoid grievance being aired in social media.

> The CAPF includes jawans from the
> - Border Security Force (BSF),
> - Central Reserve Police Force (CRPF),
> - Central Industrial Security Force (CISF),
> - Indo-Tibetan Border Police (ITBP) and
> - Sashastra Seema Bal (SSB).

10.4. INDIAN RAILWAYS TO INTRODUCE EOTT

- The **Indian Railways** will soon introduce **End of Train Telemetry (EoTT)** equipment used to establish communication between the **locomotive driver and the last wagon of the train** ensuring that the train is running with all coaches/wagons as a complete unit.
- In case of a train parting, the system is designed to indicate to the driver the parting of the train and to apply brakes to the rear unit.

10.5. INDIRA GANDHI PRIZE FOR PEACE, DISARMAMENT AND DEVELOPMENT, 2014

- The **Indian Space Research Organization (ISRO)** was recently presented the Indira Gandhi Prize for Peace, Disarmament and Development for the year 2014.
- ISRO has been presented this award for the successful **Mars Orbiter Mission** and for strengthening international co-operation.
- Amul and ISRO have signed a MoU for fodder assessment through satellite technology.

- The main objective is identification/discrimination between food crops and fodder crops and identifying suitable areas of current fallows and cultivable wastelands at the village level.

10.6. SAARC DISASTER MANAGEMENT CENTRE

Why in news?

Recently the Chief Minister of Gujarat inaugurated the SAARC Disaster Management Centre at the Gujarat Institute of Disaster Management (GIDM), Gandhinagar

About the Centre

- The Centre's Interim Unit would harness **world-class infrastructure at GIDM** and an entire ecosystem of research institutions in the vicinity to conduct programmes on a regular basis to strengthen various dimensions of disaster management cooperation among South Asian countries.
- A programme on "**Application of space technology in monitoring and managing risks**" was also launched with participation of technical experts from the region on this occasion.
- The setup of the SAARC Disaster Management Centre consolidates **India's role as first responders in crises** and furthers 'Sabka Saath, Sabka Vikas' policy in external environment especially in the neighbourhood.

10.7. INTERNATIONAL SOLAR ALLIANCE (ISA) FRAMEWORK

Why in news?

The world's smallest republic, the tiny island nation of Nauru — has become the sixth country to ratify the International Solar Alliance (ISA) Framework pact.

International solar alliance

- The International Solar Alliance is a common platform for cooperation among sun-rich countries lying fully or partially between the Tropics of Cancer and Capricorn who are seeking to massively ramp up solar energy, thereby helping to bend the global greenhouse emissions curve whilst providing clean and cheap energy.
- The initiative was launched at the **UN Climate Change Conference in Paris at the end of 2015 by the President of France and the Prime Minister of India**.

10.8. BACTERIA NAMED AFTER A P J ABDUL KALAM

Why in news?

- Scientists at NASA have named a new organism – a bacteria as *Solibacillus kalamii* in honour of **Dr. A P J Abdul Kalam.**
- This form of bacteria has only been found on the **International Space Station** and not on earth as of yet.

10.9. NEW TECHNOLOGY FOR HEARING AND VISUALLY IMPAIRED

Why in news?

- Scientists have developed new, ground breaking **software** that allows hearing and visually impaired individuals to enjoy watching television in **real time without any intermediaries.**

How does it work?

- The software known as **Pervasive SUB** compiles all the subtitles of television channels and sends them to a central server which forwards them to Smartphones and tablets.
- It is then sent to the Braille line of the user using GoAll app which is compatible with different Braille lines.
- This app controls the speed of the Braille lines in order to synchronise it with the TV broadcast.

10.10. MANKIDIA TRIBE

Why in news?

Odisha, the State's Forest and Environment Department has asked its personnel to learn a few tricks from the Mankidia tribe to contain the menace.

Ingenious method

When they spot a monkey in a tree, they surround it by climbing nearby trees and structures. Once it is surrounded, they shake the tree till the animal falls. A team on the ground, which is ready with a net, quickly traps the animal.
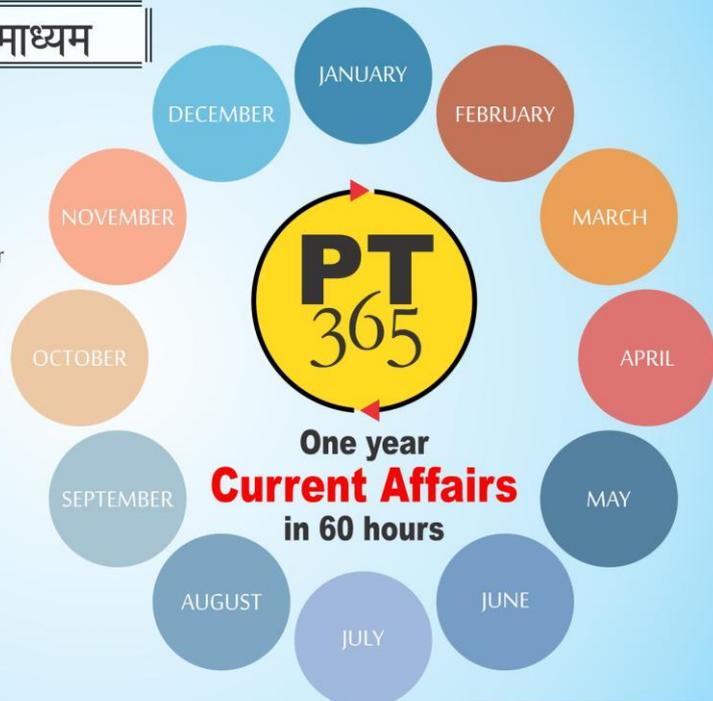
Mankidia tribe

- They are classified as Particularly Vulnerable Tribal Groups (PVTGs) in Odisha.
- They are semi nomadic and they used to hunt monkey for its meat.