

OFFICERS'

Pulse

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Coverage.

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At a Glance & In Depth.

Polity and Social Issues
Economy
International Relations
Environment
Science and Tech
Culture..



CURRENT AFFAIRS WEEKLY

THE **PULSE** OF UPSC AT
YOUR FINGER TIPS.

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News @ a glance

Polity & Social Issues

Victims shall also decide on the punishment

Why in News?

- Supreme Court has held that punishment should be “meaningful” to the victim also.

Background

- In a criminal prosecution, the State takes the front seat while the victim becomes a prosecution witness. The crime is primarily considered a wrong against society and the punishment is considered a deterrent for prospective offenders.

Recent Judgement

- As per the recent judgement, a victim impact statement must be given due recognition so that an appropriate punishment is awarded to the convict. With its order, the Supreme Court has made it clear that the victim or her family who has suffered the crime should have an equal say in the punishment of the perpetrator.

Saubhagya Scheme

About Saubhagya Scheme

- Pradhan Mantri Sahaj Bijli Har Ghar Yojana – “Saubhagya” is a scheme to ensure electrification of all willing households in the country in rural as well as urban areas.

Why in News?

- Minister of State (IC) for Power and New & Renewable Energy announced an award scheme under Saubhagya here today to felicitate the DISCOMs / Power Department of the States and their employees for achieving 100 per cent household electrification in their area of operations.

Objective

- The objective of the ‘Saubhagya’ is to provide energy access to all by last mile connectivity and electricity connections to all remaining un-electrified households in rural as well as urban areas to achieve universal household electrification in the country.

Beneficiaries of the project

- The beneficiaries for free electricity connections would be identified using Socio Economic and Caste Census (SECC) 2011 data.
- However, un-electrified households not covered under the SECC data would also be provided electricity connections under the scheme on payment of Rs. 500.

Implementation process

- For easy and accelerated implementation of the Scheme, modern technology shall be used for household survey by using Mobile App.
- The Rural Electrification Corporation Limited (REC) will remain the nodal agency for the operationalisation of the scheme throughout the country.

Expected outcomes of the scheme

- Environmental upgradation by substitution of Kerosene for lighting purposes
- Improvement education services
- Better health services
- Enhanced connectivity through radio, television, mobiles, etc.
- Increased economic activities and jobs
- Improved quality of life especially for women

#MeToo movement

Background

- The Me-Too movement (or #MeToo movement), with many local and international alternatives, is a movement against sexual harassment and sexual assault. #MeToo spread virally in October 2017 as a hashtag used on social media in an attempt to demonstrate the widespread prevalence of sexual assault and harassment, especially in the workplace.
- Tarana Burke, a social activist and community organizer, began using the phrase “Me Too” in 2006, on the Myspace social network as part of a campaign to promote “empowerment through

empathy" among women of colour who have experienced sexual abuse, particularly within underprivileged communities.

Why in News?

- There is a need to expand the base of the #MeToo movement.

Indian Scenario

- The Mathura rape case was an incident of custodial rape in India on 26 March 1972. The case is seen as turning point in women right's movement in India, as it led to greater awareness of women's legal rights issue, oppression, and patriarchal mindsets.
- Bhanwri Devi case is another landmark case, the petition, filed by Vishakha and four other women's organizations in Rajasthan against the State of Rajasthan and the Union of India, resulted in what, is popularly known as the Vishakha Guidelines. The judgment of August 1997 provided the basic definitions of sexual harassment at the workplace and provided guidelines to deal with it.

Way Forward

- These movements preceded the present #MeToo movement, and are indicative of the plight of the women from marginalised communities.
- It is important to note that sexual harassment is dictated not only by sex or gender but also by factors like people's race, caste, religion, colour, region, age, disability and sexuality.
- Race and caste divide aggravate the experiences of sexual harassment, while privilege in terms of the two make a difference in averting, seeking help and recovering from abuse.
- Thus there is a need to reach out and seek narratives beyond those of upper-caste, urban, non-disabled, cisgender women.

Special courts for politicians

Why in News?

- A Supreme Court Bench, recently gave 11 States/Union Territories (UTs) and the High Courts of Karnataka, Kerala and Tripura a deadline of four weeks to comply with its recent order on weeding out criminals in politics.

About the SC Order

- The SC order has called on States/UTs to furnish data to determine the number of

special courts to be set up across the country to exclusively try accused legislators.

Background

- The apex court has ordered Special courts to be established to fast-track the long-pending trials against MPs and MLAs in a bid to weed out corruption and criminality in politics.

Need for Such a move

- Lack of Proper Legislation-Representation of Peoples Act, 1951 lists various offences that disqualify a person from being elected; however, there are not adequate provisions for time-bound trials or setting up of fast-track courts, for the trial of such offences.
- The criminalisation of Politics-17 per cent of 5,380 candidates contesting the Lok Sabha election 2014 have declared criminal charges in their affidavits submitted to the Election Commission; 10 per cent have declared serious criminal charges such as murder and rape charges.

'Padwomen' of Telangana

Background

- As per the 2018 report of the National Family Health Survey, 62% of women use cloth instead of sanitary pads. In most of the Adivasi villages in Telangana, women were found to be using cloth or ash for menstrual protection.
- The pad-making units were set up primarily to support adolescent girls and young women enrolled in schools. All the existing units have been commissioned under the Integrated Tribal Development Agency (ITDA).

Why in News?

- In Telangana's tribal belt, since February this year, Adivasi women have been running four small units that produce sanitary napkins for free distribution to students in the tribal welfare hostels and ashram schools.

Integrated Tribal Development Agency (ITDA)

- Integrated Tribal Development Agency (ITDA) have act as additional institutions for delivery of public goods and services to Scheduled Tribes.
- These agencies function under the overall control of the State Governments.
- The respective State Government keep watch over these agencies for ensuring

effective utilization of funds provided to them for implementation of various programmes/interventions and submission of the progress of the work assigned to them.

Defamation

What is a defamation case?

- According to Sec 499 of the Indian Penal Code - Any person who by words either spoken or written or by signs or by visible representations, makes or publishes any accusation concerning any person intending to harm the reputation of such person, is considered to be an act of defamation.
- Section 500 of IPC which is on punishment for defamation, reads: "Whoever defames another shall be punished with simple imprisonment for a term which may extend to two years, or with fine, or with both."

Why in News?

- Union minister of state for external affairs MJ Akbar filed a private criminal defamation complaint against a journalist who recently levelled charges of sexual misconduct against him.

Indian Gorkhas

Who are Gorkhas?

- Gorkhas (or Gurkhas) are Nepali-origin people. In India, the word is sometimes used to make a distinction between Indian Gorkhas, who are citizens of India, and Nepali citizens who are living in India.

About the Indian Gorkhas

- Most of them are descendants of Gorkhas settled in India during British rule. The British Army had raised several Gorkha units in India.
- In a notification issued on August 23, 1988, the Home Ministry clarified that Gorkhas domiciled in India at the time of commencement of the Constitution, and those born in India, or born to one or both parents born in India, are citizens of India.
- West Bengal has the highest number of Nepali-speaking citizens, and Sikkim the highest density.

Nepali citizens living in India

- These are migrants legally living in the country. According to the External Affairs Ministry, nearly 6 million Nepali citizens live and work in India.

- The Indo-Nepal Treaty of Peace and Friendship (1950) permits, "on a reciprocal basis, the nationals of one country in the territories of the other the same privileges in the matter of residence, ownership of property, participation in trade and commerce, movement and other privileges of a similar nature".

Why in News?

- The Home Ministry has issued a communication citing a 1950 treaty between India and Nepal and stating that Gorkhas living in India cannot be referred to Foreigners Tribunals in Assam.

What is the issue?

- At a time when the National Register of Citizens (NRC) is being updated, the All Assam Gorkha Students' Union made a representation to the ministry about members of the community being referred to Foreigners Tribunals.
- The ministry cited the Foreigners Act (1946) and the 1950 treaty to state that Gorkhas cannot be referred to these tribunals effectively covering both Indian and Nepali citizens.

Are the Gorkhas eligible for inclusion in the Assam NRC?

- The Indian Gorkhas of Assam are eligible, by virtue of being Indian citizens. The Nepali citizens are not eligible for inclusion, although they are legal migrants and the 1950 treaty protects them from referral to a Foreigners Tribunal.

Bastar Dialogue

What is the Bastar Dialogue?

- Around 150 people, from various States affected by the Maoist insurgency, undertook a 186-km long 'Peace Padyatra' (peace march) to appeal to "all sides to give peace a chance."
- The marchers symbolically walked the same path that the Maoists took in 1980 to enter the Dandakarnya forest.
- The Dandakarnya forest is spread across six states in central India and has been the epicentre of operation of the Maoist movement. This march also seeks to appeal to Maoists to drop arms and tread the path of non-violence to put across their demands.

Why in News?

- The Bastar Dialogue, aimed at furthering peace in the Red Corridor, concluded in

Jagdalpur on Saturday with the passing of a resolution and finalising a roadmap towards achieving peace in the Dandakaranya region.

Alternative Peace Process

- While one of the ideas of this march is to appeal to Maoists to drop their arms, however, the motive of the march goes much beyond just that. It is being referred to as an "alternative peace process".
- It is aimed at creating a platform for the Adivasi community to raise their issues. Also, there are plans to provide the community with a solution to improve their livelihood using the traditional skills and knowledge they have.

About the Red Corridor

- The Red Corridor is the region in the eastern, central and the southern parts of India that experience considerable Naxalite–Maoist insurgency.
- The Red Corridor is almost contiguous from India's border with Nepal to the northern fringes of Tamil Nadu. There is, however, a significant gap consisting of coastal and some central areas in Odisha state, where Naxalite activity is low and indices of literacy and economic diversification are higher.

No time bar for POSCO Crimes

Background

- The Ministry of Law, after examining the provisions of POCSO Act has stated that unlike the Code of Criminal Proceedings (CrPC), the Protection of Children from Sexual Offences Act (POCSO), 2012, does not lay down a time limit for reporting crimes covered under it.
- Section 19 of the POCSO Act, which deals with sexual crimes against children, lays down the procedure for reporting a crime but doesn't specify a time limit or statute of limitation for reporting it.

Why in News?

- The government clarified that there is no time bar on reporting crimes, under the POSCO act. This means that Survivors of child sexual abuse can file a police complaint after they become adults.

POCSO Act 2012

- The Protection of Children from Sexual Offences (POCSO) Act, 2012 deals with sexual offences against persons below 18 years of age, who are deemed as children.

- The Act for the first time defines "penetrative sexual assault", "sexual assault" and "sexual harassment".
- The offence is considered graver if it is committed by a police officer, public servant, any member of the staff at a remand home, protection or observation home, jail, hospital or educational institution, or by a member of the armed or security forces.
- The Act is a comprehensive law to provide for the protection of children from the offences of sexual assault, sexual harassment and pornography while safeguarding the interests of the child at every stage of the judicial process.
- The Act incorporates child-friendly procedures for reporting, recording, investigation and trial offences, and speedy trial of offences through the appointment of Special Public Prosecutors and designated Special Courts.

Bharat Net project

Bharat Net

- Bharat Net is a project of national importance to establish, by 2017, a highly scalable network infrastructure accessible on a non-discriminatory basis, to provide on-demand, affordable broadband connectivity of 2 Mbps to 20 Mbps for all households and on-demand capacity to all institutions, to realise the vision of Digital India, in partnership with States and the private sector.
- The entire project is being funded by the Universal Service Obligation Fund (USOF), The objective is to facilitate the delivery of e-governance, e-health, e-education, e-banking, Internet and other services to rural India.

Why in News?

- The new corporate office of **Bharat Broadband Network Limited (BBNL)** was inaugurated in New Delhi recently.

Universal Service Obligation Fund (USOF)

- The New Telecom Policy (NTP) 1999 of Department of Telecom, GoI had Universal Service as one of its main objectives
- It aimed to provide a balance between the provision of Universal Service to all uncovered areas, including the rural areas, and the provision of high-level services capable of meeting the needs of the country's economy and encourage the

development of telecommunication facilities in remote, hilly and tribal areas of the country.

- The Indian Telegraph (Amendment) Act, 2003 giving statutory status to the Universal Service Obligation Fund (USOF) was passed by both Houses of Parliament in December 2003.
- The money for this fund comes through a 'Universal Access Levy,' charged from the telecom operators as a percentage of various licenses fees being paid operators as a percentage of various licenses fees being paid by them.

PMBJP

Why in News?

- The Digital Cash Management System was recently inaugurated.

Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)

- It is a campaign launched by the Department of Pharmaceuticals to provide quality medicines at affordable prices to the masses. PMBJP stores have been set up to provide generic drugs, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs.
- It was launched by the Department of Pharmaceuticals in November 2008 under the name Jan Aushadi Campaign. Bureau of Pharma PSUs of India (BPPI) is the implementation agency for PMBJP.

Digital Cash Management System

- Digital Cash Management System for Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) will be implemented as a partnership between BPPI and Bank of Baroda. This System will be implemented at all PMBJP Kendras for purchasing medicines and cashless payment system with BPPI.
- Bank of Baroda will also provide loan to all PMBJP Kendra for purchasing medicines.

The cashless transactions will be done only through unique virtual accounts opened by Bank of Baroda for each and every PMBJP Kendra, across the country.

Faulty hip implants

Background

- The proposal is the result of a recent investigation by an expert committee on hip implants manufactured by a Johnson and Johnson (J&J) subsidiary that required some patients to undergo revision surgeries because of allegedly faulty designs.
- The patients have demanded that they be consulted on the mechanism to decide on the compensation. The mechanism, involving state-level committees, for evaluation of medical disability, and a Central Expert Committee for deciding the quantum of compensation, is based on the recommendations of the expert panel headed by Dr. Arun Agarwal

Why in News?

- India's highest drug advisory board will take up a proposal for setting up a national registry for all implantable high-risk devices to protect patients.

Need for a national registry

- National registries are needed for all implantable devices to effectively study adverse effects associated with medical devices. This will protect patients and improve outcomes. The proposed registry will be on the lines of the UK's medicines and healthcare products regulatory agency (MHRA) and the Australian registry.

Drug Technical Advisory Board (DTAB)

- DTAB is the highest statutory decision-making body on technical matters related to drugs in the country. It is constituted as per the Drugs and Cosmetics Act, 1940. It is part of the Central Drugs Standard Control Organization (CDSCO) in the Ministry of Health and Family Welfare.

Economy

Global UDAN

What is UDAN scheme?

- In 2017, the Ministry of Civil Aviation launched the Regional Connectivity Scheme “UDAN” (Ude Desh Ka Aam Naagrik) which aims at providing connectivity to un-served and under-served airports of the country through revival of existing air-strips and airports to make flying affordable to the common man.
- UDAN has a unique market-based model. Airline routes are allocated to operators selected through a competitive bidding mechanism.
- Airlines have to set aside 50% of the total aircraft capacity for cheaper fares to be offered at the rate of Rs. 2,500 per hour of flight, in return for which airlines are given a subsidy by the Centre and the State government concerned.

Why in News?

- The Government is planning to expand UDAN scheme to cover select overseas destination.
- For this, Airports Authority of India, the implementing agency of UDAN, has invited proposals from interested air operators for the international version of the scheme.

Defining a ‘shell company’

What are shell companies?

- Typically, shell companies include multiple layers of companies created for the purpose of diverting money or for money laundering. These companies conduct almost no economic activity.
- In India, shell companies are not yet illegal. There is no clear definition of what shell company is in the Indian legal system.
- Till now, the government use the Companies Act, 2013 to take actions against companies indulging in financial irregularities.
- The act allows the Registrar of Companies to deregister a company if it fails to commence its business within one year of its incorporation or when it is not carrying on any business or operation for a period of two years.

Why in News?

- The government has set up a committee to define a shell company for the purposes of enforcing penal laws for various violations.

Data localisation policy

What is Data localisation?

- Data localisation is an act of storing data on any device that is physically present within the borders of a particular country where the data was generated.

Towards a Data protection regime

- In April, RBI directed all payment system operators including Visa, MasterCard, Google and WhatsApp, to ensure that data related to payment systems operated by them are stored only within India within a period of six months.
- The **Draft Data protection law**, recommended by the Justice Srikrishna committee, suggests that every data processing entity in India shall ensure the storage of at least one serving copy of personal data on a server located in India.
- The **Draft e-commerce policy** also calls for local storage of personally sensitive data.

Why in News?

- Two US senators have written a letter to Prime Minister Narendra Modi asking to soften India’s stance on data localisation, warning that India’s policy on the issue will adversely affect American businesses in the country.
- They said that forced data localisation will be counterproductive as it would create inefficiencies for both businesses and consumers by raising the cost of procuring and delivering data services.
- Earlier this month the RBI made it clear that it would implement its data localisation directive without extending the deadline (Oct 15) or allowing data to be stored both offshore as well as locally - a practice known as **data mirroring**.

15 players fail to comply

- As the RBI’s deadline expired on Oct 15, about 15 payment firms out of the total 78 are yet to fully comply with the directive.

G-Secs purchase under OMO

What are Government Securities (G-Secs)?

- G-Secs are tradable instruments like bonds issued by the Central Government or the State Governments with a promise of repayment upon maturity.
- The Central Government can issue both treasury bills and bonds while the State

Governments can issue only bonds, which are called the State Development Loans (SDLs).

- These securities are considered low-risk, since they involve the government and hence, are called **risk-free gilt-edged instruments**.

What are Open Market Operations (OMOs)?

- Open Market Operations are conducted by the RBI which involve sale or purchase of G-Secs to or from the market. The objective is to control the money supply conditions.
- If there is excess liquidity (i.e. excess money supply) in the market, the RBI resorts to sale of securities which reduces the volume of money. Similarly, when the liquidity conditions are tight, it buys securities from the market, thereby releasing money into the market.

Why in News?

- The RBI has announced that it will buy G-Secs worth \$120 billion under Open Market Operations to meet the necessary liquidity conditions in the market.

Trade Deficit Shrinks

What is a trade deficit?

- A trade deficit is an economic measure of international trade in which a country's imports exceed its exports. It is also referred to as a negative balance of trade (BOT).

Why in News?

- According to the latest government data, the trade deficit has shrunk to a five-month low of \$13.98 billion in September as compared to \$17.4 billion in August despite high oil prices. The overall trade deficit stood at \$94.32 billion in the first six months of the current financial year (FY 2019- 1 April 2018-31 March 2019).
- This can be attributed to the government measures in September to cut down non-essential imports. It includes doubling duties on import of 19 items, including air conditioners, household refrigerators and washing machines.
- However, India's exports declined 2.15 per cent in September compared to last year. This shows that the rupee depreciation against the US dollar has not, so far, improved the competitiveness of our export sector. *(It is generally believed that depreciation of a country's currency will increase its exports)*

Safeguard duty

What is a Safeguard duty?

- It is imposed on the import of goods to protect domestic manufacturers who are not been able to compete with cheap imports.
- In July, the government imposed 25% safeguard duty on solar panels imported from China and Malaysia, which covers more than 90% of solar panels and modules used in Indian solar projects.

Why in News?

- According to a report on the wind and solar sectors released by ICRA, a credit rating agency, the imposition of safeguard duty on imported photovoltaic modules and the rupee depreciation against the US dollar are estimated to increase the capital cost of solar power projects by 20-25%.
- The impact of these two factors is partly moderated by the decline in the PV module prices by about 20% since June 2018.
- Further, the rising bank interest rates are putting pressure on the viability of the wind and solar projects having tariffs less than Rs. 3 per unit.

Interoperability among Payment Instruments

What is Interoperability among Payment systems?

- Interoperability allows compatibility between payment systems which means a user can transfer funds between mobile wallets and also from their wallets to bank accounts.
- Currently, a mobile wallet does not allow customers to send or receive money from a wallet run by another company.

What's in the news?

- The Reserve Bank has released the guidelines for interoperability between prepaid payment instruments (PPIs) such as wallets and cards.
- It aimed at allowing users of popular payment wallets such as Paytm, Freecharge, Mobikwik, and PhonePe to transfer money from one wallet to another.
- Interoperability shall be achieved in 3 phases
 1. Through Unified Payments Interface (UPI)
 2. Between wallets & bank accounts through UPI

3. Interoperability for PPIs issued in the form of cards through card networks such as Mastercard, Visa or Rupay.

About UPI

- UPI is a payment system launched by the National Payments Corporation of India in 2016.
- It allows a customer to pay directly from a bank account to different merchants, both online and offline, without the hassle of typing credit card details, IFSC code, or net banking/wallet passwords.

Indian Strategic Petroleum Reserves

What are Strategic Petroleum Reserves (SPR)?

- They are huge stockpiles of crude oil established to tackle emergency situations. SPRs significantly help India's energy security and will insulate the country from external price and supply shocks.
- Currently, India has constructed three strategic petroleum reserves in huge underground rock caverns at Visakhapatnam (1.33 Million Metric Tonnes) on the East Coast, and at Mangaluru (1.5 MMT) and Padur (2.5 MMT) on the West Coast.
- These facilities can meet about 10 days of India's crude oil requirements. The global practice is to maintain strategic reserves of at least 90 days of oil imports.

Why in News?

- In June, the union cabinet approved Phase-II of SPR programme, which involves creation of additional 6.5 MMT of storage at Chandikhol, Odisha (4.0 MMT) and Padur-II, Karnataka (2.5 MMT).
- Combined with an existing storage capacity of 5.3 MMT, the new strategic petroleum reserve facilities will help support 22 days of India's crude oil requirements.

Composition scheme

What is Composition scheme under GST?

- The Composition scheme is an easy, low procedure and compliance friendly tax scheme for small and medium enterprises.
- Under the scheme, firms whose turnover is less than Rs. 1.5 crores can pay a fixed percentage of their turnover as tax.

Advantages of Composition scheme

- They need to file only four tax returns in a year (a normal taxpayer has to file 37 returns under GST), thereby reducing the

tax compliance burden and cost of small firms.

- Firms need not keep detailed books of accounts on a daily basis and supporting documents
- Limited tax liability

Disadvantages

- The Composition scheme is for businesses dealing in goods. Services providers are can't avail the scheme (except restaurants).
- A Composition scheme firm is not allowed to avail input tax credit of GST

Why in News?

- The Finance Ministry announced that businesses opting for composition scheme need not file details of purchases made from their vendors at the time of filing quarterly returns.

Payment regulator

Background

- In August, an inter-ministerial panel set up to finalize amendments to the Payment & Settlement Systems Act, 2007 had recommended an independent Payments Regulatory Board (PRB) to oversee all payment systems in the country.
- The panel proposed that the PRB should have a chairman appointed by the government in consultation with the RBI.

Why in News?

- The RBI has submitted a dissent note opposing the proposal to set up an independent regulator for payment systems outside the purview of the central bank.
- The RBI argued that the PRB must remain with the central bank and headed by the RBI governor. It proposed that the RBI and the government may nominate three members each to the board, with a casting vote for the governor.
- It cited the report of the **Ratan Watal Committee** on digital payments as recommending the establishment of the PRB within the overall structure of the RBI.
- The central bank submitted that payment systems are technology-based substitutes for currency and regulation of such systems can be best done within the ambit of the monetary authority.

Generalised System of Preferences (GSP)

What is GSP?

- The Generalised System of Preferences (GSP) is one of the oldest trade preference programmes in the world, under which developed countries offer preferential treatment (such as zero or low duties on imports) to products originating in developing countries.
- The GSP programme of U.S. allows market access at nil or low duties for about 3,500 Indian products.

Eligibility Review of India

- In April, The United States Trade Representative (USTR) launched a GSP **eligibility review** of India to assess whether India is providing equitable and reasonable market access to products from the US.
- The review is based on complaints from US' dairy and medical device industries alleging that India has implemented a wide array of trade barriers that affecting the US exports in those sectors.

Why in News?

- As the review process is currently going on, exports are confused whether Indian exports to the U.S. eligible for duty-free entry into the GSP or not.
- The confusion is leading to a diversion of orders meant for India to neighbouring countries such as Bangladesh, Sri Lanka, and Vietnam.

Wholesale inflation rises

What is WPI?

- Wholesale Price Index (WPI) is an index that measures and tracks the changes in the price of goods in the stages before the retail level. It provides estimates of inflation at the wholesale transaction level for the economy as a whole.
- It is released by the Office of Economic Adviser, Department of Industrial Policy and Promotion, Ministry of Commerce and Industry. The base year is 2011-2012.
- The index basket consist of commodities under 3 main categories in decreasing order of weightage: Manufactured products, Primary Articles and Fuel and Power.

Why in News?

- The WPI rose to a two-month high of 5.13 percent in September.
- The increase is mainly due to rising food prices (which comes under Primary

Articles basket) as well as rise in cost of petrol and diesel.

Gold imports rise

What's in the news?

- India's gold imports increased by about 4% to \$17.63 billion in the first half of 2018-19.

How import of Gold affects our economy?

- India is the world's biggest gold importer. Import of gold increases the country's **CAD**- Current Account Deficit- which means the value of goods and services we import exceeds the value of those we export. The recent surge in gold imports has widened CAD to 2.4% of the GDP.
- Importing huge amounts of gold using foreign exchange reserves **depreciate** the value of the rupee. This in turn makes key imports like crude oil more costly.
- Investment in gold does not add much value to the productive capacity of the economy. They are either stored in bank lockers or get exchanged for making jewellery.

Government measures to increase productive use of Gold

- **Gold Monetization Scheme** to bring out the gold lying idle in homes into the Indian Economy which would turn gold into a productive asset. Through this scheme, people can deposit their gold and can earn interest on it.
- **Sovereign Gold Bond scheme** to reduce the demand for physical gold which offers the same benefits as of physical gold. The value of gold bond increases with the market rate of gold.

Forex Reserves falls

India's Foreign Exchange Reserves

- In India, Foreign Exchange Reserves are the foreign assets held by the RBI. It comprises of foreign currency assets, gold, reserve tranche position and SDRs

What is special drawing rights (SDR)?

- SDRs were created by IMF in 1969 as a supplement to the existing reserves of member countries.
- An SDR is essentially an artificial currency instrument (also called "*paper gold*"). The IMF allocates SDRs to its 188 member nations, depending on the ratio of IMF funding each provides. A country suffering from a financial emergency can exchange

its SDRs for dollars and other major currencies.

- The SDR basket consists of **five** major currencies of the world - US dollar, Euro, British Pound, Chinese Renminbi and Yen (Japan).

What is the Reserve Tranche Position (RTP)?

- The reserve tranche is a portion of the required quota of currency that each IMF member country must provide to the IMF. It can be accessed by the member country at any time for its own purposes without a service fee.

Why in News?

- India's foreign currency reserves have declined by \$5.143 billion to \$394.465

billion during the week to October 12. This is one of the steepest falls that the forex has seen in recent decades.

- The fall is mainly due to the continuing fall of the rupee against US dollars. As the rupee has been depreciating, the RBI has sold over \$40 billion of its reserves to support the rupee since the beginning of the current fiscal. (When RBI sells dollars in exchange of rupees, the demand of rupee will increase which will consequently increase the value of rupee against dollar)
- At the current level, reserves are adequate to cover more than nine months of imports.

International Relations

RCEP Ministerial Meeting

About RCEP

- RCEP comprises the 10-member ASEAN grouping and its six free trade partners, including China, India, Japan, South Korea, Australia and New Zealand.
- Once concluded, RCEP will create the largest regional trading bloc, making up 25% of GDP, 30% of global trade, and 26% of foreign direct investment (FDI) flows.

Why in News?

- The Minister of State for Commerce & Industry and Consumer Affairs, Food and Public Distribution attended the 6th RCEP Inter-sessional Ministerial Meeting (IMM) in Singapore on 12-13 October 2018.

Highlights of the Meeting

- The Ministers from 16 RCEP countries met in Singapore to discuss a modern, comprehensive and mutually beneficial economic partnership agreement among ASEAN and ASEAN's FTA partners.
- The Ministers reviewed developments since the 6th RCEP Ministerial Meeting held on 30-31st August, 2018 in Singapore.
- They welcomed the intensification of market negotiations. While appreciating some narrowing of gaps, the Ministers urged all RCEP Participating Countries to continue to exert all efforts towards meeting the targets set in the Package of Year-End Deliverables.

India, France - Tri-service exercise

Why in News?

- India and France are in discussions for a bilateral tri-service military exercise to take forward the strategic cooperation while also exploring ways to operationalise the logistics agreement

Background

- India and France signed a logistics pact in March this year which gives access to their militaries to each other's bases for logistics support.
- These agreement gives India access to French military bases all over the world on a "reciprocal basis," of particular interest for New Delhi are the three French bases in the Indian Ocean -Reunion Island, Djibouti and Abu Dhabi.

- India and France currently hold bilateral exercises between individual services, Shakti, Varuna and Garuda respectively for the Army, Navy and Air Force.

India Energy Forum

What is India Energy Forum?

- Established in October 2001, The India Energy Forum is perhaps the only Indian Organisation which represents the energy sector as a whole.
- The Forum serves as a catalyst for the development of a sustainable and competitive energy sector in India.
- It is an independent advocate of the industry promoting practical solutions to problems affecting project development and finance in India.
- The Forum works with companies and Government (Centre and States) to achieve consensus on such issues as regulatory structures and policies and the role of public organizations.

Why in News?

- Saudi Arabia's oil Minister while speaking at the India Energy Forum has said that "Saudi Arabia stands committed to meeting all of India's energy needs, especially in oil"

India's position

- India is the world's fastest-growing energy and oil consuming nation and the world's third-biggest oil importer.
- Currently, India is facing record high retail prices as the international crude rate has soared primarily due to loss of Iranian exports due to US sanctions and the rupee value has continued to depreciate in the past few months.

India-China ties

Why in News?

- India and China are in talks over connectivity projects that pass through Iran, Afghanistan and Pakistan. Currently, the India-China training programme for Afghan diplomats is underway in Delhi.

India-China Plus cooperation

- On the sidelines of BRICS Summit in South Africa, Beijing had mooted the proposal for "China-India plus one" or "China-India plus X" cooperation model.

- The objective of this is to achieve mutual benefits and win-win outcomes between China and India and other countries, and jointly make contributions to promoting regional and world peace, stability, development and prosperity.
- China and India are members of the Istanbul Process and the Shanghai Cooperation Organisation.
- There are talks of regional connectivity initiatives such as the International North-South transport corridor, India-Iran-Afghanistan transit and trade arrangement, and China-Pakistan—Afghanistan cooperation.
- All these have provided a solid foundation for the current and future cooperation between China and India in Afghanistan.
- It has also been suggested that China-India Plus cooperation should be extended to other countries such as Nepal, Bhutan, Maldives, Iran and Myanmar.

About India-China training programme

- The training programme is being held at the Delhi's Foreign Service Institute of India and is an outcome of the Wuhan summit in April this year when Prime Minister of India met with Chinese President to break the post-Doklam deadlock in bilateral ties.

Istanbul Process

- The Heart of Asia - Istanbul Process was established to provide a platform to discuss regional issues, particularly encouraging security, political, and economic cooperation among Afghanistan and its neighbours.
- This region-led dialogue was launched in November 2011 to expand practical coordination between Afghanistan and its neighbours and regional partners in facing common threats, including counterterrorism, counter-narcotics, poverty, and extremism. The United States and over 20 other nations and organizations serve as "supporting nations" to the process.

Shanghai Co-operation Organisation

- Shanghai Cooperation Organisation (SCO) is a Eurasian political, economic and military organisation, which was founded in Shanghai by the leaders of China, Russia, Kazakhstan, Kyrgyzstan, and Tajikistan in the year 2001.

International North-South transport corridor

- The International North-South Transport Corridor (INSTC) is a 7,200-km-long multi-mode network of a ship, rail, and road route for moving freight between India, Iran, Afghanistan, Armenia, Azerbaijan, Russia, Central Asia and Europe.
- The route primarily involves moving freight; the objective of the corridor is to increase trade connectivity between major cities such as Mumbai, Moscow, Tehran, Baku, Bandar Abbas, Astrakhan, Bandar Anzali, etc.

India-Iran-Afghanistan transit and trade arrangement

- India, Iran and Afghanistan have signed a tripartite agreement to turn the Iranian port of Chabahar into a transit hub bypassing Pakistan, which has been the only route for war-stricken Afghanistan to the Indian Ocean.
- The accord, which calls for joint investments, will significantly boost the role of the under-tapped port of Chabahar. Once the project is realised, it will connect India to Afghanistan and central Asia, while Kabul will get an alternate route to the Indian Ocean.

China-Pakistan—Afghanistan cooperation

- China and Pakistan have decided to speed up and extend the \$50 billion China-Pakistan Economic Corridor towards Afghanistan. The CPEC was originally conceived as a strategic link with highways, rail and pipeline links between China's Xinjiang and Pakistan's Gwadar port. But since then several projects have been extended to different provinces.

ASEM Summit

About ASEM

- The Asia-Europe Meeting (ASEM) is an intergovernmental process established in 1996 to foster dialogue and cooperation between Asia and Europe. Presently it comprises 53 partners: 30 European and 21 Asian countries, the European Union and the ASEAN Secretariat.
- ASEM addresses political, economic, financial, social, cultural, and educational issues of common interest, in a spirit of mutual respect and equal partnership.
- The ASEM Summit is a biennial meeting between the Heads of State and Government, the President of the European Council, the President of the European

Commission, and the Secretary-General of the Association of Southeast Asian Nations (ASEAN).

Why in News?

- The 12th ASEM Summit (ASEM12) will be held on 18-19 October 2018 in Brussels, Belgium.

Background

The ASEM summit will bring together:

1. Heads of state or government of 51 European and Asian countries
2. Representatives of the European Union
3. The Secretary General of the Association of Southeast Asian Nations (ASEAN)
4. Discussions will focus on the theme "Europe and Asia: Global Partners for Global Challenges".
5. Leaders will seek to strengthen dialogue and cooperation between the two continents on a wide range of areas, including:
6. Trade & investment, Connectivity Sustainable, development and climate, Security challenges such as terrorism, non-proliferation, cyber-security, irregular migration.

India, China set to resume drill

About "Hand in Hand"

- The scope of the exercise is to understand transnational terrorism and evolve joint drills for the conduct of counter-terrorism operations, in addition to Humanitarian Assistance and Disaster Relief operations.
- The exercise will be held in three phases — familiarisation, basic training and the joint exercise.

Why in News?

- India and China will resume the annual joint Army exercise 'Hand-in-Hand' in December in China's Chengdu region,

Background

- Following the Wuhan summit between Prime Minister of India and the Chinese President in April, the two countries have initiated several measures to normalise relations. The resumption of the joint military exercise is one of them.

Dharma Guardian-2018

Why in News?

- India and Japan are all set to hold the first-ever joint military exercise 'DHARMA GUARDIAN-2018'

About the Exercise

- It involves the Indian Army and Japan Ground Self Defence Force, and its primary aim is to enhance promote Military cooperation, between the two countries.
- During the exercise, emphasis will be laid on increasing interoperability between forces from both countries. Both sides will jointly train, plan and execute a series of well-developed tactical drills for neutralisation of likely threats that may be encountered in urban warfare scenario.

Significance

- It is a step towards deepening strategic ties including closer defence cooperation between the two countries. It will contribute immensely in developing mutual understanding and respect for each other's militaries and also facilitate tracking the worldwide phenomenon of terrorism.

Science & Technology

Organ Transplant issues

What is Organ Transplant?

- It is the surgical removal of a healthy organ from one person (alive or deceased) and its transplantation into another person whose organ has failed or was injured -- is often lifesaving and gives the recipient a wonderful new lease on life.
- **Compatibility and Matching:** Many things like blood group, organ size, fluids, antibodies, allergies etc. should match of both donor and receiver. Otherwise the body will reject the organ and start producing antibodies if faced by antigens which are allergic to receiver. Blood coagulation, decrease in blood pressure and turning of organ to blue colour can happen.

What's in the news?

- Recently the organs of a 59-year-old brain-dead patient, that were transplanted in 3 patients failed which led to death of two recipients and one has to undergo another transplant.
- A committee has been established to inquire the matter which would consist experts from India, US and UK.

What is NOTTO?

- National Organ and Tissue Transplant Organization (NOTTO) has been set up in 2014 to maintain registry based on the information received from the transplant/retrieval hospitals and other related organizations. But it is half functional.
- The greatest drawback is Health is a state subject and there is no proper channel for information to flow to NOTTO from hospitals.
- Government of India provides support to States under the National Organ Transplant Programme to set up Regional Organ and Tissue Transplant Organizations/State Organ and Tissue Transplant Organization

What are the problems in India?

- There is absence of outcome registries in India which help in understanding the quality of life after transplant and the rate of mortality.
- Organs from deceased donors are being allocated preferentially to foreign

nationals, especially those from the Middle East, Central Asian republics and Africa.

- Nearly two lakh people require kidneys, but only 8,000 manage to get one.

What is needed?

- Compilation of data regarding transplant patients and maintenance of registry is at most essential for India to know the drawbacks.
- Government must bring in laws to ease organ transplantation.

Ancient rocks in India

What's in the news?

- Researchers have found the oldest clue about the mystery of animal life in ancient rocks and oils, including samples taken from India.

About the fossil evidence:

- The samples found dates back to at least 100 million years before the famous Cambrian explosion of animal fossils.
- The "Cambrian Explosion" refers to the sudden appearance in the fossil record of complex animals with mineralised skeletal remains 541 million years ago.
- The Researchers tracked molecular signs of animal life in the fossils which dates back to as 660-635 million years ago during the Neoproterozoic era.
- Neoproterozoic era is the era in the ancient geological time during which complex life forms originated.



Made by sponges:

- In ancient rocks and oils from India, Oman, Siberia, they found a steroid compound produced only by sponges, which are among the earliest forms of animal life.
- The researchers have been looking for distinctive and stable indicators that indicates the existence of sponges and other early animals, rather than single-celled organisms that dominated the earth

for billions of years before the dawn of complex, multicellular life.

- The evidences found in the fossil has a unique structure that is currently only known to be synthesised by certain species of modern sponges
- This finding is likely to solve the mystery of origin of complex life from single celled organism.

Repository for MDR bacteria

What are multi-resistant bacteria?

- **Multidrug-resistant** organisms are bacteria that have become **resistant** to certain antibiotics, and these antibiotics can no longer be used to control or kill the bacteria.

Why in news?

- The Pune-based National Centre for Cell Science (NCCS) is set to become a repository of multidrug-resistant bacteria and fungi from across the country.
- NCCS will function as a bio-repository for multidrug-resistant microbes/infective agents. The bio-repository will receive, store, maintain, preserve and characterise these microbes.

Collection of microbes:

- Multidrug-resistant microbes received from different settings in the same city and from other across the country will help shed light on the spread and resistance pattern of these microbes.
- Sharing of samples is voluntary and it depends on the willingness of the health and veterinary institutions to do so.
- There is currently no large-scale research undertaken to study the presence and spread of different multidrug-resistant microbes.
- NCCS plans to study the samples collected at the repository to develop new antibiotics and anti-fungals and test the effectiveness of new drugs.

Nutrient-rich hybrid maize

What's in the news?

- The Indian Agricultural Research Institute (IARI) here has bred a hybrid maize (Pusa Vivek QPM 9 Improved) that is claimed to be the world's first ever rich in lysine and tryptophan as well as pro-vitamin A.

About the hybrid crop:

- Cereal grains are high in carbohydrates (65-75%) and low in protein (7-12%).

Even their proteins are deficient in essential amino acids such as lysine and tryptophan, which the human body cannot synthesise and have to be supplied through diets.

- The Indian Agricultural Research Institute (IARI) here has bred a hybrid maize (Pusa Vivek QPM 9 Improved) that is claimed to be the world's first ever rich in lysine and tryptophan as well as pro-vitamin A.
- The bio-fortified hybrid is not genetically modified. Bio fortification is the idea of breeding crops to increase their nutritional value. This can be done either through conventional selective breeding, or through genetic engineering.

Advantages:

- The grain has more nutritional value. The bio-fortified food can go a long way in fighting malnutrition of our country.
- The new hybrid can be used as animal feeder for pigs and poultry to gain more weight.

About IARI:

- The Indian Agricultural Research Institute (IARI) is the country's premier national Institute for agricultural research, education and extension.
- Headquarters-New Delhi.
- The current institute in Delhi is financed and administered by the Indian Council of Agricultural Research (ICAR). The IARI was responsible for the research leading to the "Green Revolution in India" of the 1970s.

Oneer

What's in the news?

- CSIR has developed an innovative technology for "Drinking Water Disinfection System" with Trade name "Oneer".

Significance of the disinfection system:

- It is useful for continuous treatment of water and eliminates all disease-causing pathogens such as virus, bacteria, fungi, protozoa and cyst to provide safe drinking water to domestic and communities settings as per National and International standards prescribed for potable water (BIS, WHO etc.).
- It will provide access to safe and clean drinking water at a cost of just 2 Paise / Ltr.
- The technology will be helpful especially for rural people since it can be solar

powered and this development is in line with the 'Make in India' Mission.

- A large proportion of India's rural community is consuming water that does not meet the WHO drinking water quality standards; this disinfection system will go a long way in ensuring quality water to the citizens.

About Council of Scientific and Industrial Research (CSIR):

- CSIR was established by the Government of India in September of 1942 as an autonomous body that has emerged as the largest research and development organisation in India.
- Registered under Societies Registration Act, 1960.
- The research and development activities of CSIR include aerospace engineering, structural engineering, ocean sciences, life sciences, metallurgy, chemicals, mining, food, petroleum, leather, and environmental science.

Skin gel to protect from pesticides

Why in news?

- Indian researchers have developed a gel which, when applied on the skin, can inhibit some pesticides from getting absorbed into the body, thus averting serious adverse effects and even death.

Toxic Pesticide

- Organophosphate-based pesticides, which are commonly used by farmers in India, are toxic to the nervous system and heart, and can cause cognitive dysfunction.
- When esters present in organophosphate based pesticides enter the body they bind and inhibit an enzyme critical for nerve and muscle function. This causes neurological disorders, suffocation, paralysis, and even death.
- Pesticides have caused large number of farmer deaths in many parts of the country.

About the gel

- Since the majority of organophosphate-based pesticides are absorbed through the researchers made a gel for topical application.
- The active ingredients of the gel are attached to chitosan (a substance found in the hard-outer shells of crab and shrimp) so the gel does not penetrate the skin. As long as there is a thin layer of the gel

present on the skin it can offer protection from pesticides.

- The gel does not act like a physical barrier but chemically deactivates the pesticides thereby limiting the inhibition of the enzyme. The gel can be washed off using soap.

World's largest unmanned drone

What are drones?

- Unmanned Aerial Vehicles, or drones, are aircrafts that can be navigated without a human pilot on board the aerial vehicle. Drones can be navigated via control from the ground, using a GPS tracking system.

Why in news?

- China has invented an unmanned drone Feihong-98 (FH-98) which can carry a load of 1.5 tonnes
- It is now the world's largest unmanned transport aircraft.
- President of the China Academy of Aerospace Electronics Technology, said that the FH-98 features simple take-off and landing, simple operation, advanced technology, at an affordable cost.

H1N1

What is Swine flu (A/H1N1)?

- A respiratory disease caused by a strain of the influenza type A virus known as H1N1.
- The illness is originally known to affect pigs. It is known to have spread to humans who came in direct contact with pigs. However, the new virus or the mutated type of virus that has emerged over the years has the ability to affect humans without direct contact with pigs.
- The virus is transmitted from person to person through the same medium as other flu viruses.
- A healthy person may acquire the infection by inhaling droplets expelled by the infected person while coughing or sneezing or by contacting surfaces infected with the virus.
- The virus is not transmitted directly by eating cooked pork.
- **Victims:** Individuals having any other respiratory condition like pneumonia; Pregnant women; People suffering from chronic diseases like heart disease and diabetes; People more than 65 years of age and children younger than 2 years.

Treatment:

- Once the patient is tested positive for swine flu, treatment needs to be initiated immediately.
- According to the National Institute of Communicable Disease (NICD), swine flu can be completely treated if it is diagnosed at a very early stage.
- The anti-viral medicines oseltamivir (Tamiflu/Fluvir) and zanamivir (Relenza) are given to diagnosed patients.
- As per NICD, the medicine should be administered within 48 hours of the first symptom. The drugs work by inhibiting the ability of virus to release progeny virus particles.

Prevention:

- Just like other influenza viruses, H1N1 infection can be prevented by practicing basic hygiene. Wear a proper surgical mask; Always cover your face: Always wash your hands.

Why in news?

- Four of a family, including a doctor couple working with the Tirunelveli Medical College Hospital, are undergoing treatment at the isolation ward of the hospital with symptoms of swine flu.

NASA's Chandra telescope

About NASA's Chandra X-ray Observatory:

- It is a telescope specially designed to detect X-ray emission from very hot regions of the Universe like exploded stars, clusters of galaxies, and matter around black holes.
- As X-rays are absorbed by Earth's atmosphere, therefore Chandra is positioned above the Earth's atmosphere up to an altitude of 13.9 thousand km in space.
- Chandra, launched in 1999, is well beyond the original design lifetime of 5 years. In 2001, NASA extended its lifetime to 10 years. It is now well into its extended mission and is expected to continue carrying out forefront science for many years to come.

Why in news?

- A glitch (malfunction) was detected in the Chandra's mission last week. And hence the mission is put under the safe (observation) mode.

Defence and Security

Special Forces in India-US exercise

Why in news?

- The first India-U.S. tri-services exercise is likely to take place in 2019, and talks are going on to include the special forces of the two countries in the drill.

About other military drills:

- The three forces of each country already take part in bilateral exercises separately, their Armies participate in an annual drill called Yudh Ayaas and the Air Forces take part in a bilateral drill called Cope India.
- The Navies participate in an exercise in Malabar, involving Japan.
- But this will be the first time, the three services of India and the U.S. will participate in a drill together.

UN scenario

- The drill will focus on a United Nations-based themes and the overarching mission of humanitarian assistance, disaster relief measure etc.

Kamikaze drones for NSG

What's in the news?

- NSG commandos get weaponised kamikaze drones to step up their warfare game.

About Kamikaze drone:

- Kamikaze drone also known as suicide drone is a weapon system category in which the drone searches for targets, and attacks once a target is located.
- Kamikaze drone is a remote controlled Unmanned Aerial Vehicle.
- The drone is built indigenously.
- Drone was unveiled during 34th Raising Day of National Security Guard.
- Kamikaze in a set of two drones, the first drone carries explosives to break the window.
- The second drone carries a detonator which could explode and neutralise the terrorists.

Significance of the drone:

- The twin kamikaze drone can be a potential game-changer. The weaponised UAV can reach terrorists holed up in a building and also save the lives of the commandos.
- The suicide drone can self-explode. With its induction National Security Guard (NSG) will be looking at zero loss of Black Cat lives.

About NSG:

- The National Security Guard (NSG) is an Indian Special Forces unit under the Ministry of Home Affairs (MHA).
- It was raised in 1984, following Operation Blue Star and the assassination of Indira Gandhi, "for combating terrorist activities with a view to protect states against internal disturbances".
- It is not categorised under the uniform nomenclature of Central Armed Police Forces.
- The NSG personnel are often referred to as **Black Cats**.

India-Japan-USA plan joint exercise

Why in news?

- India, Japan and the U.S. are set to elevate the bilateral '**Cope India**' air exercise to a trilateral format by including Japan.
- The three countries already conduct naval war games under the expanded **Malabar** naval exercise.

Japan to send observers:

- At the annual Defence Ministerial Meeting in August between Defence Minister Nirmala Sitharaman and her Japanese counterpart, it was agreed that Japan will send observers for the next round of Cope India exercises between India and U.S. to be hosted by the Indian Air Force.
- The level of interoperability in the exercises, both bilateral and trilateral, is expected to go up with India recently signing of COMCASA with the US.

Environment

Human-leopard Conflict

What is Human – Animal Conflict?

- The harmful competition between man & animal for food & water in the fringes & habitat fragmentation are the two main causes of man-animal conflict.
- This issue will be solved when the wild animals are saved from indulgence of human in this area.

Why in News?

- Scientists at the Wildlife Institute of India (WII) studied patterns of Leopard attacks in the Eastern Himalayas and Western Himalayas from the published literature, newspaper reports & data of the forest department and the data is used to develop the predictive risk map.

What is the importance of the Study?

- The studies reveal that some high-risk zones require urgent conservation measures for both human & leopard as the children & the middle-aged tea workers are becoming the victims of this Conflict.
- Maximum number of cases has been recorded from Northern West Bengal (foothills of eastern Himalayas) called dooars & the Western Himalayas in the Uttarakhand.

What is Wildlife Institute of India (WII)?

- It's an autonomous body of MoEFCC and a premier training & research institute in the field of wildlife & protected area management in South Asia.
- WII is the India's first repository of Tiger.

Leopard Status in India:

- The Indian leopard (*Panthera pardus fusca*), is listed as Vulnerable in the IUCN Red List
- Indian leopards are not common in habitats where tiger density is high
- Indian leopard belongs to the same species population as that of the Asiatic lion.
- In Himalayas the leopards usually prefer forested habitats as compared to the snow leopard which is present at the higher altitudes.

Air Quality Early Warning System for Delhi

What is it?

- This System is designed by Ministry of Earth Science to predict extreme air

pollution events & give alerts to take necessary steps as per Graded Response action Plan (GRAP) of the Government of India.

- It will give warning with regards to large scale Air pollution occurring over the Delhi region in 3-4 days advance.
- The 41-member team of Central pollution control board (CPCB) will continuously monitor the Air pollution levels in NCR & it also derives its information from NASA satellites.

Why in News?

- Union Minister of Environment & Earth Sciences launched the Air quality early warning system for Delhi, developed jointly by the scientists at Indian Institute of Tropical Metrology (IITM) Pune & India Meteorological Department (IMD) and National centre for medium range weather forecasting (NCMRWF).

What is the Background?

- The retreating of southwest monsoon & setting up off the north westerly winds carry smoke from the stubble (mostly from Punjab & Haryana) which blows into the plains of North India, causing air pollution in Delhi.
- Hence in order to monitor the level of Air pollution in Delhi, Government has launched this.

How it Works?

- Environmental Pollution Authority (EPA) & CPCB are providing necessary steps in the technical support under the Prediction system from the National Centre for Atmospheric Research (NCAR, USA) & the Finnish Meteorological institute (FMI)
- It consists of three components
 1. Real time observations of air quality over Delhi using satellite data.
 2. Predictions of air pollutant based on the state of art atmospheric transport models.
 3. Warning messages, alerts & bulletins.
- Along with this the new website were developed for all observation which accessed by EPA & CPCB

Other programmes to Control Delhi Air Pollution:

- Graded Response Action Plan by the Government of India
- Environment Pollution Control Authority by the Supreme Court of India
- National clean Air Programme (NCAP) as a national level strategy.
- Forty-two Action plan by central pollution control board

What is Graded Response action Plan (GRAP)?

- MoEF&CC notifies the GRAP to combat air pollution in NCR Delhi region with the task of implementation assigned to Environment Pollution control Authority (EPCA)
- Based on the Air Quality the GRAP Classifies air quality into grades such as emergency, severe, very poor & moderately poor.
- Steps taken under GRAP are ban Garbage Burning in landfills, sprinkling of water, reduction in usage of diesel generator sets etc.

Environmental Awareness

Why in News?

- Recently MoU was signed between Indian Council of Forestry Research and Education (ICFRE), Dehradun, with Navodaya Vidyalaya Samiti (NVS) and Kendriya Vidyalaya Sangathan (KVS) in order to make the youth of the country sensitive about national and global issues of environment and forests.

What is it?

MoU has two objectives:

1. It has been signed to launch the programme "PRAKRITI"
2. It provides a platform to school Children to learn practical skills towards judicious use of resources & mobilize the youth towards the Forest & environment conservation.

What is PRAKRITI programme?

- This programme was launched with the objective to promote awareness about forests & environment, to stimulate interest among the students of NVS and KVS in maintaining a balanced environment.

What is the significance of the MoU?

- This MoU has been signed for a period of 10 years, through which knowledge will be imparted to students/teachers by the lecture & practical Interaction sessions conducted by the ICFRE institutes.

What is the Indian Council of Forestry Research and Education (ICFRE)?

- It's an autonomous organization under the Ministry of Environment & Forests & headquartered in Dehradun.
- It focuses on Contemporary issues of national & International importance such as climate change, forest productivity, biodiversity conservation and skill development.

Artificial lake in Arunachal & Assam

What is an artificial lake?

- Artificial lakes can be formed by building a dam across a valley, by excavating the land or by surrounding a piece of land with dykes and diverting a part of the river flow into the reservoir.

Why in news?

- Districts along the Brahmaputra River in Arunachal Pradesh and Assam have been put on high alert for possible flash floods after China informed India about a landslide blocking its main stream of Tsangpo river in Tibet leading to formation of an artificial lake.

Mechanism of sharing information:

- India and China signed the MoU concerning 'cross border river cooperation' in the SCO Qingdao Summit.
- China shares hydrological information with the Indian side such as the water level and flow rate at the Nuxia hydrological station and the temporary hydrological station downstream of the barrier lake.
- China activated the 'Emergency Information Sharing Mechanism' with India following the landslide.

What are the bilateral implications of this move?

- The sharing of information reflects the positive gestures of implementing the Wuhan consensus between President Xi Jinping and Prime Minister Narendra Modi

About Brahmaputra River

- Brahmaputra originates in Chemayungdung Glacier (Kailash Range) Tibet, China where It turns southwards and enter India near namcha- barwa
- It has different name such as Yarlung Tsangpo river in China and it is called as Siang, when it enters Arunachal Pradesh and Brahmaputra in Assam and Jamuna in Bangladesh.

- Major tributaries are Dihang, Lohit, Subansiri, Teesta, Meghna (Barack in Assam), Manas.

Wind Mills threaten wildlife

What's in the news?

- The researchers from Salim Ali Centre for Ornithology and Natural History (SACON) after studying about the windmills in Karnataka found that it poses a threat to wildlife in forests through collisions and noise.

How it affects the wildlife?

- The noise level near the windmills (85 decibels) is equivalent of large truck and greater than the noise in urban areas (55 dB) and even industrial area (75dB).
- This noise level has led to the death of the Birds, Bats & Mammals, while some of them have moved away from that place.
- The avoidance and movement of Birds and Animals to [forest] fringes might increase the conflict with humans.

Alternative solutions:

- The government wants to frame the protocols and policy guidelines before diverting forest land for wind farms.
- To construct the windmills far away from the bird sanctuary.
- Instead of constructing horizontal wind mills which causes the death of birds we must go ahead with the vertical windmills.

Carnot Prize to India

What is Carnot Prize?

- Carnot Prize is the annual recognition of distinguished contributions to energy policies through scholarship or practice and intended to honour those leading revolutions in energy policy.
- The prize is named after the French physicist Nicolas Sadi Carnot who recognized the power of the steam engine that was a great revolution in human development.

Why in news?

- Klein man Center for Energy Policy at the University of Pennsylvania awarded 4th annual Carnot Prize to Union Minister Shri Piyush Goyal for recognizing the path breaking transformations in India's energy sector.

India's achievement in energy sector:

- India is preparing towards eliminating the energy poverty with sustainable energy solutions.
- The rural electrification drive has eliminated decades of darkness in more than 19000 villages in India.
- 51% of 3.1 crores rural household electrified under the Saubhagya programme got the provision of the last mile connectivity to every household in the villages.
- India's massive green energy thrust reflected a target of 175GW in 2022 in the renewable energy where 72GW has been achieved already.
- India has laid the foundation for International Solar Alliance (ISA).
- Under UJALA scheme (the world's largest LED Bulb distribution programme) 130 crore LED bulbs have been distributed, making India brighter and cleaner.

Katowice Climate Talks

What's in the news?

- Ahead of the Katowice climate change conference (COP 24), India is having talks with nearly 40 countries including china in various capacities.

Background of the talks:

- Recently Intergovernmental Panel on Climate Change released a report which compiled scientific evidence that shows that the Earth would reach 1.5 degree Celsius by 2030-2052.
- Developed countries are not good on their promise to provide \$100 billion annually to the developing countries for checking global warming.

Significance of the talks:

- Compelling the developed countries to provide enough finance and technology to stem runaway global warming as per their promises.
- The like-minded developing countries like India, China, Venezuela, Iran, Brazil, South Africa have formed the networks to represent the concerns of the developing countries.

About Climate Change Conferences of Parties (COP)

- COP is the supreme decision-making body of United Nations Framework Convention on Climate Change (UNFCCC), which meets annually, addressing global warming.
- At COP, all parties review the implementation of convention and take necessary decisions to promote the effective implementation of convention.
- In the 21st COP at Paris, decision is taken to ensure that the Earth doesn't gets warmer than 2 degree Celsius over the pre- industrial era.

Culture

PM's museum

What's in the news?

- The foundation stone for a museum of all the Prime Ministers of India will be laid on the Teen Murti Estate premises in Delhi, despite objections the Centre said

Teen Murti Estate:

- The Teen Murti Bhavan is the (former) residence of the first Prime Minister of India, Jawaharlal Nehru, who moved there after Mahatma Gandhi died.
- He stayed there for 16 years from 1947 until his death on May 1964 the house was converted into a national memorial to him comprising a library and a museum.

Why the name Teen Murti?

- The house is named after the Teen Murti ("three statues").
- The life-size statues of three soldiers, was built in 1922 in the memory of the Indian soldiers from three Indian princely states, namely Jodhpur State, Hyderabad State and Mysore State who fought the World War I alongside the British in a battle called Battle of Haifa.
- The Battle of Haifa was fought between the British and The Ottoman Empire as a part of World War I.

Why opposition?

- The opposition party feels that the building where the first Prime Minister lived showed be left alone to glorify the legacy of first Prime Minister.
- By including all PMs, the nature and the character of museum will be changed, is the opposition stand.

Korean War memorial in Delhi

What's in the news?

- A Korean War memorial will be built in New Delhi to commemorate India's role in the war that ended in an armistice in 1953.

About the war memorial

- India and South Korea have agreed to build a war memorial.
- The Delhi government had identified the land for the memorial in central Delhi.
- The funding of the projects would be shared between the two countries.
- Technical details like design and other aspects were yet to be worked out and the

memorial is expected to be ready by 2019 end.

What is the historical context?

- The beginning of the cold war saw the Soviet backing a communist regime in Korean peninsula's Northern region.
- But the US faction was backing a liberal government that eventually took control of the southern part of the peninsula.
- The inter-Korean war lasted for three years between 1950 and 1953, which was a proxy war between USSR and the US.
- Although a truce was reached in 1953 through the "Armistice Agreement", both Korean regimes never officially ended the war till recently.
- The agreement divided the Korean peninsula into two along the 38th Parallel (latitude) and also provided for neutral international peace patrol.

What was India's Role?

- India under Nehru was actively involved in negotiating peace in the Korean peninsula by engaging all the major stakeholders – US, USSR and China.
- Diplomacy - In late 1952, the Indian resolution on Korea was adopted at the UN with unanimous non-Soviet support.
- But India rightly recognized any deal without the Soviets will fail and immediately flung into action to get them on board, which happened in 1953.
- Ultimately, despite the rough international political climate, India succeeded in building consensus which precipitated in the "Armistice Agreement".
- India did not send combat troops to the Korean War (1950-53), but had sent medical and other personnel to monitor Prisoners of War.

75th Year of Azad Hind Government

What is Azad Hind government?

- Netaji Subash Chandra Bose established the provisional government of Azad Hind at Singapore in 1943 with the support of the Axis powers of Imperial Japan, Nazi Germany, Italian social republic to free India from British rule.
- Azad government was also formed in the Japanese occupied Andaman-Nicobar

island, which was later reoccupied by the British government.

Why in news?

- PM Narendra Modi will join a flag-hoisting ceremony at the Red Fort on 21st October to mark the 75th anniversary of the 'Azad Hind government' headed by Subhas Chandra Bose.
- The Prime Minister also reiterated the earlier announcement of an award in the name of Netaji Subhas Chandra Bose, to honour those involved in disaster response operations.
- Traditionally PM hoist the Tricolour flag at Red fort on Independence Day

Significance of Azad Hind Government:

- It was launched to free India from the British rule under the Azad Hind government during the latter part of Second World War.
- It united Indians living abroad too with the vision of a strong undivided India.
- Under this government Netaji was the head of the state, Captain Lakshmi headed the women's organization while Rash Behari Bose served as the supreme advisor.
- Azad Hind Government ended by the death of Subash Chandra Bose.
- The decision to hoist the flag at the Red fort came up because Trials of soldiers of Azad Hind Fauj was conducted by the British inside it.

Azad Hind government's bank, currency and stamps:

- Bank of Independence or Azad Hind Bank was established in 1944 in Rangoon, Burma to manage funds donated by the Indian community across the world for the Liberation of India.
- The notes are not in Rupees and it states 'Good Wishes' learned as the promissory notes. These notes are crude and were to be used after the liberation of India from British occupation as a form of emergency currency. They are usually printed on one side
- They had images of Mahatma Gandhi, Captain Lakshmi Swaminathan, the female commander of the INA's Rani of Jhansi of Women's Regiment and Minister for Women's Affairs for the provisional government of Azad Hind and Jawaharlal Nehru. The denomination was 5, 10, 100, 500, 1000, 5000 and even 10000.

- The Indian posts and telegraph issued the commemorative stamp on the 25th anniversary of the formation of Azad Hind Government depicting Netaji reading out the proclamation.

About Subash Chandra Bose

- He was born in Cuttack in the then Bengal Province.
- He was selected for the Indian Civil Services (ICS) but he refused to join in it
- He joined the Indian National Congress (INC) in 1921 and became the President of the All India Youth Congress and also the Secretary of the Bengal State Congress, later he became the Mayor of Calcutta
- He started a newspaper 'Swaraj' & authored the book "Indian Struggle".
- He coined the term Jai Hind.
- He laid down the foundation for equal opportunity for women in armed forces with the formation of Rani Jhansi Regiment

Allahabad shall become Prayagraj

Background

- Allahabad got its name in 1575. The Mughal Emperor Akbar called it Illahabas, meaning the abode of God.
- Before Akbar rechristened the city, it was known as Prayag. Some medieval texts, including Akbar's court historian Abul Fazl, called it Piyag.
- The Rig Veda and some of the Puranas mention it, giving it a high religious value in India.

Why in News?

- The Uttar Pradesh Cabinet has adopted the proposal to rename the historical city of Allahabad as Prayagraj.

Procedure

- States initiate the procedure to rename a city. The proposal is then sent to the Centre, which if it deems fit to do so, approves and forwards it to the concerned state governor. The state government then issues a gazette notification renaming the city.

Lingayat issue

What's in the news?

- The religious minority status to the Lingayat community which was on discussion before 2018 Assembly elections, has come back to life now, with the by elections of Assembly, Lok Sabha constituencies and the general elections around the corner.

What is the issue?

- Water Resources and Medical Education Minister D.K. Shivakumar apologised to the Veerashaiva community for providing minority religion tag to 'Lingayat and Veerashaiva Lingayat' under the previous Congress government's decision which brought in deep differences within the Congress and the opposition BJP on the issue.
- The issue arose because of projecting Lingayat community as an integral part of Hinduism and

arguing that Lingayat and Veerashaiva were one and the same.

How old is the movement?

- The Lingayats' demand for constitutional recognition of Lingayatism as a separate religion is several decades old. It was a separate religion until the 1881 census of the Mysore state, which merged the Lingayats with Hindus. In the early 20th century, the All India Veerashaiva Mahasabha took attempts to restore their exclusive religious identity.

How is Lingayat and Veer Shaiva different from each other?

Sect	Veera Shaiva	Lingayat
Founder	<ul style="list-style-type: none"> Panchacharyas 	<ul style="list-style-type: none"> Poet-philosopher-social reformer Basaveshwara or Basavanna (locally known)
Religious script	<ul style="list-style-type: none"> Vedas, Agama, Siddhanta Shikhamani 	<ul style="list-style-type: none"> Basavanna and his followers (known as the "Sharanas") rejected the supreme authority of the Vedas, the Puranas, the Smritis and the Shastras. Instead, they composed several literary works, collectively referred to as Vachanas and Vachana literature.
Caste & gender equality	<ul style="list-style-type: none"> It puts Aradhyas at the top of the ladder and there is no gender equality 	<ul style="list-style-type: none"> Complete equality of men and women in religious, political and social practices
Worship, temple & priests	<ul style="list-style-type: none"> Veerashaivas do not worship any God other than Shiva, where the statue of Shiva is envisaged in the Vedas with snake around the neck. It has a system of temples and priests 	<ul style="list-style-type: none"> Basavanna's Shiva is a formless, seamless figurative entity, known as the Ishta linga that resides in each and every life form. It Bans temple worship. Worships only Ishta linga
Origin	<ul style="list-style-type: none"> Veerashaivas are worshippers of Lord Shiva. They precede Basavanna, the founder of Lingayatism. 	<ul style="list-style-type: none"> Lingayatism emerged as a mass reactionary movement against Brahmanical Hinduism in medieval Karnataka during the period of the Kalchuri dynasty. They denounced the need for pilgrimages and holy sites, abhorred worship of idols, and abandoned the doctrines of polytheism, reincarnation and karma.

Miscellaneous

Anna Burns wins Booker Prize

Why in news?

- Author Anna Burns has won the Man Booker Prize for her novel 'Milkman', becoming the first author from Northern Ireland to win the most prestigious English-language literary award.

About Booker Prize:

- The Man Booker Prize for Fiction is a literary prize awarded each year for the best original novel written in the English language and published in the UK.

Indian authors who won Booker Prize:

- Sir V.S. Naipaul-In a Free State-1971.
- Salman Rushdie-Midnight's Children-1981.
- Arundhati Roy-The God of Small Things-1997.

Paul Allen

Why in news?

- Paul G. Allen, co-founder of Microsoft, who helped usher in the personal computing revolution & then channelled his enormous fortune into transforming Seattle into a cultural destination, passed away.

Evolution of Microsoft

- Microsoft during its first seven years the personal computer was moving from a hobbyist curiosity to a mainstream

technology, used by both businesses and consumers.

- The company's first product was a much-compressed version of the Basic programming language, designed to suit those underpowered machines.
- Yet, the company's big move came when it promised computer giant IBM that it would deliver the operating system software for IBM's entry into the personal computer business. Mr. Gates and Mr. Allen committed to supplying that software in 1980.
- Microsoft Disk Operating System, or MS-DOS was the main operating system for IBM PC compatible personal computers during the 1980s and the early 1990s, when it was gradually superseded by operating systems offering a graphical user interface (GUI), in various generations of the graphical Microsoft Windows operating system.
- Microsoft introduced an operating environment named Windows on November 20, 1985, as a graphical operating system shell for MS-DOS in response to the growing interest in graphical user interfaces (GUIs).
- Microsoft Windows came to dominate the world's personal computer (PC) market with over 90% market share.

News in-depth

General Studies-1

Helping the invisible hands of agriculture

Why in News?

- October 15 is observed, respectively, as International Day of Rural Women by the United Nations and National Women's Farmer's Day (Rashtriya Mahila Kisan Diwas) in India.

Background

- In 2016, the Ministry of Agriculture and Farmers' Welfare decided to take the lead in celebrating the event, duly recognising the multidimensional role of women at every stage in agriculture — from sowing to planting, drainage, irrigation, fertilizer, plant protection, harvesting, weeding, and storage.
- This year, the Ministry has proposed deliberations to discuss the challenges that women farmers face in crop cultivation, animal husbandry, dairying and fisheries. The aim is to work towards an action plan using better access to credit, skill development and entrepreneurial opportunities.

Feminisation of agriculture

- In FAO document shows that while the proportion of the labour force working in agriculture declined over the 1990s, the proportion of women working in agriculture increased, particularly in developing countries. In some regions such as Africa and Asia, almost half of the labour force is women. This trend has been called the feminization of agriculture.
- Economic Survey 2017-18 says that with growing rural to urban migration by men, there is 'feminisation' of agriculture sector, with increasing number of women in multiple roles as cultivators, entrepreneurs, and labourers.

Data Point

- According to Oxfam India, women are responsible for about 60-80% of food and 90% of dairy production, respectively.

- The Agriculture Census (2010-11) shows that out of an estimated 118.7 million cultivators, 30.3% were females. Similarly, out of an estimated 144.3 million agricultural labourers, 42.6% were females.
- In terms of ownership of operational holdings, the latest Agriculture Census (2015-16) is startling. Out of a total of 146 million operational holdings, the percentage share of female operational holders is 13.87% (20.25 million), a nearly one per cent increase over five years.

Challenges

- The biggest challenge is the powerlessness of women in terms of claiming ownership of the land they have been cultivating. In Census 2015, almost 86% of women farmers are devoid of this property right in land perhaps on account of the patriarchal set up in our society.
- A lack of ownership of land does not allow women farmers to approach banks for institutional loans as banks usually consider land as collateral.
- Land holdings have doubled over the years with the result that the average size of farms has shrunk. A declining size of land holdings may act as a deterrent due to lower net returns earned and technology adoption.
- Despite more work (paid and unpaid) for longer hours when compared to male farmers, women farmers can neither make any claim on output nor ask for a higher wage rate. An increased work burden with lower compensation is a key factor responsible for their marginalisation

Way Forward

- Globally, there is empirical evidence that women have a decisive role in ensuring food security and preserving local agrobiodiversity. This requires that women farmers should have enhanced access to

resources like land, water, credit, technology and training.

- Provision of credit without collateral under the micro-finance initiative of the National Bank for Agriculture and Rural Development should be encouraged. Better access to credit, technology, and provision of entrepreneurship abilities will further boost women's confidence and help them gain recognition as farmers.
- The possibility of collective farming can be encouraged to make women self-reliant. Training and skills imparted to women as has been done by some self-help groups and cooperative-based dairy activities (Saras in Rajasthan and Amul in Gujarat). These can be explored further through farmer producer organisations.
- Government flagship schemes such as the National Food Security Mission, Submission on Seed and Planting Material and the Rashtriya Krishi Vikas Yojana must include women-centric strategies and dedicated expenditure.
- Most farm machinery is difficult for women to operate. Manufacturers should be incentivised to come up with better solutions. Farm machinery banks and

custom hiring centres promoted by many State governments can be roped in to provide subsidised rental services to women farmers.

- The Food and Agriculture Organisation says that equalising access to productive resources for female and male farmers could increase agricultural output in developing countries by as much as 2.5% to 4%. Krishi Vigyan Kendras in every district can be assigned an additional task to educate and train women farmers about innovative technology along with extension services.
- As more women are getting into farming, the foremost task for their sustenance is to assign property rights in land. Once women farmers are listed as primary earners and owners of land assets, acceptance will ensue and their activities will expand to acquiring loans, deciding the crops to be grown using appropriate technology and machines, and disposing of produce to village traders or in wholesale markets, thus elevating their place as real and visible farmers.

Should India have two time zones? National timekeeper adds new arguments

Why in News?

- Scientists at the Council of Scientific & Industrial Research National Physical Laboratory (CSIR-NPL), which maintains Indian Standard Time, have published a research article describing the necessity of two time zones, with the new one an hour ahead of the existing time zone.

What is Indian Standard Time (IST)?

- Indian Standard Time, maintained by CSIR-NPL, is based on a line of longitude that runs through Mirzapur in UP. At 82°33'E, the line is 82.5° east of Greenwich, or 5.5 hours (5 hours 30 minutes) ahead of UCT. While India follows one IST, the United States follows several time zones across its breadth.
- This is "legal time", as defined by a country's law

What is the problem in following one IST in India?

- India extends from 68°7'E to 97°25'E, with the spread of 29° representing almost two hours from the geographic perspective. The effect of which is that the sun rises and sets much

earlier in eastern region than it does in the rest of the country.

- In the Northeast, the sun rises as early as four in the morning and in winter it sets by four in the evening. By the time government offices or educational institutions open, many daylight hours are already lost.
- In winter this problem gets even more accentuated and the ecological costs are a disaster with much more electricity having to be consumed.

What are the risks for India of 2 time zones?

- Politically, the unstated assumption is that the grant of a different time zone is only the first temporal step towards letting spatial autonomy.
- Since Indian railways timings are not completely automated, two different time zones can lead to train accidents.

History

- India originally had two time zones, while under British rule. These were Bombay Time and Calcutta Time. However after India gained independence a standard time zone was

introduced in order to facilitate coordination across the country.

- After IST establishment, the government found little support for this shift among the people in Bombay. Bombay Time was maintained right up to 1955 with Bombay following its own time zone which was 38 minutes ahead of the rest of the country.
- Recently central government rejected of proposal from Assam chief minister for 2 time zones. CM of Assam said that Assam would follow ChaiBagaan time. Bagaan time or tea time is a reference to an informal practice followed in tea gardens in Assam which is an hour ahead of IST.
- Guwahati High Court rejected a PIL in may 2018 regarding separate time zone for north east.

What is proposed structure?

- The research paper proposes to call the two time zones IST-I (UTC + 5.30 h) and IST-II (UTC + 6.30 h).
- The proposed line of demarcation is at 89°52'E, the narrow border between Assam and West Bengal. It identifies where the two time zones be demarcated from each other — at the “chicken neck” that connects the Northeast to the rest of India. The paper says that ‘the border between the two time zones should have a very narrow spatial-width with minimum number of train stations so that the train timings while crossing the border can be managed manually without any untoward incidents’.
- States west of the line would continue to follow IST (to be called IST-I). States east of the line — Assam, Meghalaya, Nagaland, Arunachal Pradesh, Manipur, Mizoram, Tripura, Andaman & Nicobar Islands — would follow IST-II.
- The article also puts a figure to the country’s potential savings in energy consumption — 20 million kWh a year — if it does follow two time zones

Looking back at Verma report

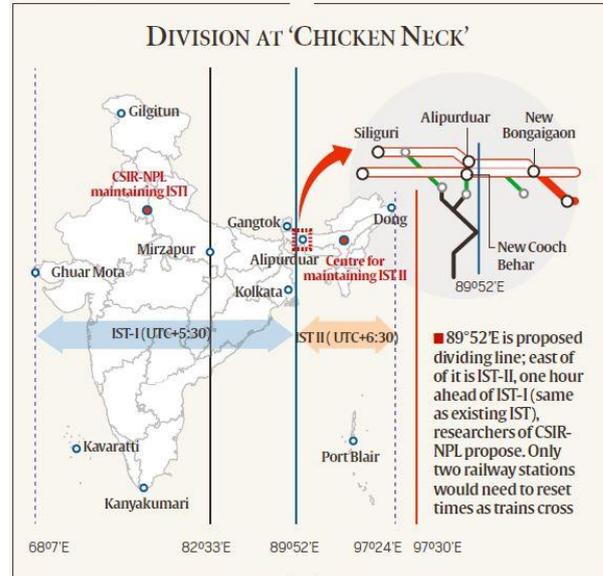
Why in News?

- The Centre recently announced its plan to set up a panel of judges to look into the legal and institutional framework to curb sexual harassment at workplaces following the #MeToo campaign on social media.

Verma Committee

- Justice Verma Committee was constituted to recommend amendments to the Criminal Law so as to provide for quicker trial and enhanced

- CSIR-NPL would **need a second laboratory** in the new time zone. This would consist of ‘Primary Time Ensemble-II’, traceable to the UTC at BIPM in France.
- CSIR-NPL already has the technical expertise to duplicate its existing facility; it also acknowledges that the move would require legislative sanction.



Way-forward

- While there seem to be arguments both for and against the use of more than one time zone, the **alternative proposal of shifting the IST meridian eastward** is interesting but likely to lead to more debate on the topic.
- Due to loss of daylight hours experts are questioning why it is that the development index leans considerably in favour of western India as opposed to the east, and what impact differential time may have on it. A detailed study should occur into it. This is perhaps a question that the Law Commission may find worthy of investigating further.
- It can be interpreted under Article 21, people of North East can ask for a study on the legal impact of a single time zone on the fundamental rights of people.

punishment for criminals accused of committing sexual assault against women.

- In its landmark report on gender laws, had recommended setting up of an employment tribunal instead of an internal complaints committee (ICC) in sweeping changes to the Sexual Harassment at the Workplace Bill.
- The report noted that an internal complaints committee as laid down under the then proposed law would be “counter-productive”

as dealing with such complaints in-house could discourage women from filing complaints.

- Instead, the committee proposed forming an employment tribunal to receive and adjudicate all complaints.
- To ensure speedy disposal of complaints, the Justice Verma Committee proposed that the tribunal should not function as a civil court but may choose its own procedure to deal with each complaint.
- The Committee said any “unwelcome behaviour” should be seen from the subjective perception of the complainant, thus broadening the scope of the definition of sexual harassment.
- The Verma panel said an employer could be held liable if he or she facilitated sexual harassment, permitted an environment where sexual misconduct becomes widespread and systemic, where the employer fails to disclose the company’s policy on sexual harassment and ways in which workers can file a complaint as well as fails to forward a complaint to the tribunal. The company would also be liable to pay compensation to the complainant
- The panel also made several suggestions to encourage women to come forward and file complaints. For instance, it opposed penalising women for false complaints and called it an “abusive provision intended to nullify the objective of the law”.
- The Verma panel also said that the time-limit of three months to file a complaint should be done

Journalism after #MeToo

Why in News?

- In the past week numerous agonising accounts of women journalists, about some male colleagues and editors abusing power and crossing the line have surfaced

What is the issue?

- Some people have suggested that the women raising their voices against sexual harassment “trivialise” more aggravated cases of sexual harassment involving physical violence.

Vishaka Guidelines

- The Vishakha Guidelines were a set of procedural guidelines for use in India in cases of sexual harassment. They were promulgated by the Indian Supreme Court in 1997 and were superseded in 2013 by the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.

Steps that can be taken

away with and a complainant should not be transferred without her consent.

The Protection of Women against Sexual Harassment at Work Place Bill

- The Bill, introduced in the Lok Sabha drew on the 1997 judgment of the Supreme Court known as the Vishaka judgment to codify measures that employers need to take to address sexual harassment at the workplace.

Highlights of the Bill

- The Bill defines sexual harassment at the work place and creates a mechanism for redressal of complaints. It also provides safeguards against false or malicious charges.
- Every employer is required to constitute an Internal Complaints Committee at each office or branch with 10 or more employees. The District Officer is required to constitute a Local Complaints Committee at each district, and if required at the block level.
- The Complaints Committees have the powers of civil courts for gathering evidence. The Complaints Committees are required to provide for conciliation before initiating an inquiry, if requested by the complainant.
- Penalties have been prescribed for employers. Non-compliance with the provisions of the Act shall be punishable with a fine of up to Rs 50,000. Repeated violations may lead to higher penalties and cancellation of licence or registration to conduct business.

- A starting point is to implement, in earnest, the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, which superseded the earlier 1997 Vishaka guidelines.
- There is a need to broaden the definition of “workplace”, to include the field when a reporter travels with her colleague on assignment or even a co-worker’s vehicle. Organisations must also strive to provide safe transport for women on late shifts.
- There is an urgent need for effective internal complaint committees (ICC). All journalists must be made aware of the ICC and the option to file a complaint there. While setting up these committees, organisations must be mindful of internal power structures that often load the dice in favour of those wielding more power.
- There is a need for spreading awareness, the 2013 Act lists organising regular workshops and awareness programmes as part of the employers’ duties.

Why cyclones hit the east coast in October

Why in News?

- Cyclone TITLI became the third major cyclone after the PHAILIN (2013) & HUDHUD (2014) to hit the Odisha- Andhra Coastal Zone in the month October of last five years.

What Is Cyclone TITLI?

- TITLI was the most intense tropical cyclone in the Bay of Bengal due to high atmospheric moisture & warmer oceanic surface temperature.
- This Cyclone devastated the parts Northern Andhra Pradesh & Odisha.

What make the Frequency of the intense cyclones in this area?

- The Bay of Bengal receives the remnants of major landfalls which produce the low pressure system that develop the monsoon depression or a cyclone, like the northwest Pacific Ocean which is active basin for typhoon.
- Another reason is **wind shear**; it is the difference between within wind speeds & direction at two different levels. The wind shear is low during this time.
- When the low wind shear combined with surface sea temperatures of greater than 26°C, raises the likelihood of cyclones. But in monsoon season wind shear cyclones is caused rare.

Why it was hard to predict the Cyclones in India?

- India largely relies on the satellite images to predict cyclone (a top view) that reveals little data on moisture content & intensity.
- It gives the details only when a cyclone is 300-400 km from the coast.
- In contrary USA used the dedicated Aircraft that fly into the clouds & study the moisture levels & other data of cyclone profile
- Cyclone TITLI turned into a recurving cyclone (it changed direction) makes it further hard to read.

Who Predicts the Cyclone in India?

- Indian Meteorological Department gives Cyclone Warning services in India

What is Indian Meteorological Department?

- Indian meteorological department was established in 1875, it comes under the ministry of earth science & it's the principal government agency in all matters relating to the metrology, seismology
- Regional specialized meteorological centre (RSMC) is assigned to the tropical weather outlooks & tropical Cyclone advisories for the Benefit countries bordering the Bay of Bengal & Arabian sea include the Pakistan.
- It established the area cyclone warning centre (ACWC) at the Kolkata, Chennai, Mumbai & Cyclone warning centre in Visakhapatnam, Bhubaneswar & Ahmedabad.

General Studies-2

Bonding with Africa, in partnership

Why in News?

- Chinese President announced a hefty \$60 billion package for Africa, at the inaugural of the Forum on China-Africa Cooperation (FOCAC).

Highlights

- China is giving more money to Africa via grants or interest-free loans, and less through interest-bearing credit lines. It's no coincidence that this shift is occurring alongside global debates over the merits (and demerits) of Chinese debt, with some critics accusing Beijing of engineering "debt traps" for developing countries by offering loans that will be impossible to repay.
- In Africa in particular, China has been accused of both "debt trap" diplomacy and more general "neo-colonialism" – both charges Chinese officials have vigorously refuted.
- In his speech at the opening ceremony, President Xi highlighted eight major initiatives for future China-Africa cooperation: industrial promotion, infrastructure connectivity, trade facilitation, green development, capacity building, health care, people-to-people exchanges, and peace and security. The common thread throughout all eight areas is an expanded focus on building up local capacity.

Forum on China-Africa Cooperation (FOCAC)

- The Forum on China-Africa Cooperation (FOCAC) is an official forum between the People's Republic of China and all states in Africa, with the exception of Eswatini, the last African state with which the PRC currently does not have diplomatic relations, since it recognizes Taiwan.
- There have been three summits held to date, with the most recent having occurred from September 3-4, 2018 in Beijing, China.

India's Stand

- India also hosts its own triennial conclave with African leaders, which was last held in 2015. In dollar terms India's contribution may not be at par with China, Its contribution to Africa's development has nonetheless been significant.

India-Africa Growing ties

- The President of India in his recent visit of Africa has extended a \$100 million line of credit for defense procurement by Mauritius and greater cooperation in the marine resource

management and marine connectivity in Madagascar.

- In Equatorial Guinea – where the President's arrival marked the first-ever visit by an Indian head of state – India announced its decision to open an independent diplomatic mission in the capital of Malabo.
- The announcement came on the heels of a government statement to the effect that 18 new embassies will be opened in Africa, increasing the number of resident Indian missions from 29 to 47.
- In yet another first, India will be constructing convention centres across 21 African countries, beginning with Niger in Western Africa. The goal here is to enable Niger to host the African Union Summit in 2019.
- In the past, India helped to build the Presidential Palace and the Parliament in Ghana. Today, it is currently helping to construct the Parliament building in Swaziland.
- Africa is also being ramped up, with over 140 Indian enterprises (from Wipro to Mahindra and Mahindra) investing over \$4 billion in South Africa alone.
- Sub-Saharan African countries have also reached out to India to undertake rural electrification – from financing and technology transfer to detailed project reports and execution.
- India is diversifying the ways in which it can enhance economic cooperation and promote its diplomatic profile in Africa. Recent figures are impressive: India has extended 152 lines of credit to the tune of almost \$8 billion to 44 African countries, for developing agriculture, infrastructure, clean energy, and manufacturing.

India China Cooperation

- If China and India are serious about the rise of Africa, the key is to co-link their development strategies on a continental scale.
- Ahead of the BRICS summit in Johannesburg earlier this year (July 2018) the Chinese Foreign Ministry put out the message that New Delhi and Beijing should vigorously pursue the 'China-India Plus One' or 'China-India Plus X' model in engaging with Africa.
- This is in line with the mechanism yielded by the Wuhan informal summit, held between the Chinese President and the PM of India, where it

was decided that China and India would coordinate their approaches for engaging a

third country or set of countries in South Asia and beyond.

Hamstringing the RTI Act

Why in News?

- “The Right to Information (Amendment) Bill, 2018” has been introduced in the in the Rajya Sabha.

Background

- The Right to Information (RTI) Act, operationalised in October 2005, was seen as a powerful tool for citizen empowerment. It showed an early promise by exposing wrongdoings at high places, such as in the organisation of the Commonwealth Games, and the allocation of 2G spectrum and coal blocks.
- The Supreme Court of India has held that the right to information is a fundamental right, which is covered under ‘freedom of speech and expression’, guaranteed under Article. 19(1)(a) of the Constitution

About RTI Act 2005

- The object of this Act is to promote transparency and accountability in the working of every public authority and to strengthen the democratic republic.
- The Act provides that every Public Authority shall designate as many officers as Central or State Public Information Officers and Central or State Assistant Public Information Officers in all administrative units or offices under it as may be necessary to provide information to persons requesting for the information or appeals under this Act.
- Sections 8 and 9 respectively of the Act have exempted certain information from disclosure. There shall be no obligation to give any citizen, information, the disclosure of which would prejudicially affect the sovereignty and integrity of India, the security, and strategic, scientific or economic interests of the State, relation with foreign state or lead to incitement of an offence.
- The general superintendence, direction and management of the affairs of citizen's right to information have been assigned to the Central Information Commission, which shall exercise all the powers conferred on, and shall perform the functions assigned to it under this Act.

PM Jan Arogya Yojana

Why in News?

- It has been touted as the world’s biggest and most ambitious financial health protection scheme. Over the past few days, significant

- Section 24(1) of the Act lays down that the application of this Act has not been extended to the intelligence and security organisations specified in the Second Schedule to the Indian Constitution.

The Right to Information (Amendment) Bill, 2018

- “The Right to Information (Amendment) Bill, 2018” has been introduced in the in the Rajya Sabha. The purpose of the amendments is to provide for enabling provision under the RTI Act to frame Rules regarding salaries, allowances and conditions of service for Chief Information Commissioners and Information Commissioners and State Information Commissioners. Presently, there are no such provisions available under the RTI Act.
- The government proposes to do away with the equivalence of the Central Information Commissioners with the Election Commissioners on the ground that the two have different mandates.
- The government also proposes to replace the existing fixed five-year tenure of the Information Commissioners with tenure as may be prescribed by it.

Criticism

- The proposal to replace the existing fixed five-year tenure of the Information Commissioners with tenure as prescribed by the government is detrimental to the independence and authority of the Information Commissions.
- The Central and State Information Commissions have been functioning with less than their prescribed maximum strength of eleven because governments have dragged their feet on appointing commissioners.
- This leads to delay in disposal of cases, which is compounded by the backlog in the High Courts, where a number of decisions of the commission are challenged.
- Section 4 of the RTI Act requires suo moto disclosure of a lot of information by each public authority. However, such disclosures have remained less than satisfactory.

progress has been made. All states except Odisha, Telangana, Delhi and Kerala have come on board. This is a testimony to co-operative Federalism.

Background

- Ayushman Bharat - Pradhan Mantri Jan Arogya Abhiyan (AB-PMJAY) is a new Centrally Sponsored Scheme having central sector component under Ayushman Bharat Mission anchored in the Ministry of Health and Family Welfare (MoHFW).
- It is an umbrella of two major health initiatives, namely Health and wellness Centres and the National Health Protection Scheme.

Health and Wellness Centres

- Under this 1.5 lakh, existing sub-centres will bring health care system closer to the homes of people in the form of Health and wellness centres. These centres will provide comprehensive health care, including for non-communicable diseases and maternal and child health services.

National Health Protection Mission (AB-PMJAY)

- AB-PMJAY will have a defined benefit cover of Rs. 5 lakh per family per year. This cover will take care of almost all secondary care and most of tertiary care procedures. To ensure that nobody is left out (especially women, children and elderly) there will be no cap on family size and age in the scheme.
- The benefit cover will also include pre and post-hospitalisation expenses. All pre-existing conditions will be covered from day one of the policy.
- Benefits of the scheme are portable across the country and a beneficiary covered under the scheme will be allowed to take cashless benefits from any public/private empanelled hospitals across the country.
- It will be an entitlement based scheme with entitlement decided on the basis of deprivation criteria in the SECC database.
- The beneficiaries can avail benefits in both public and empanelled private facilities. All public hospitals in the States implementing AB-

PMJAY, will be deemed empanelled for the Scheme.

- One of the core principles of AB-PMJAY is to co-operative federalism and flexibility to states.
- State Governments will be allowed to expand AB-PMJAY both horizontally and vertically. States will be free to choose the modalities for implementation. They can implement through an insurance company or directly through Trust/ Society or a mixed model. 80% of the states have opted for the Trust Model.
- For giving policy directions and fostering coordination between Centre and States, Ayushman Bharat National Health Protection Mission Council (AB-NHPMC) at apex level, has been proposed. It will be Chaired by Union Health and Family Welfare Minister.
- In partnership with NITI Aayog, a robust, modular, scalable and interoperable IT platform has been made operational which will entail a paperless, cashless transaction. This has been backed by a well-defined Grievance Redressal Mechanism.

Major Impact

- In-patient hospitalization expenditure in India has increased nearly 300% during last ten years. (NSSO 2015). More than 80% of the expenditure are met by out of pocket (OOP). Out of pocket (OOP) expenditure in India leads to nearly 6 million families getting into poverty due to catastrophic health expenditures.
- AB-PMJAY will have major impact on reduction of Out Of Pocket (OOP) expenditure on ground of:
 - Increased benefit cover to nearly 40% of the population, (the poorest & the vulnerable)
 - Covering almost all secondary and many tertiary hospitalizations. (except a negative list)
 - Coverage of 5 lakh for each family, (no restriction of family size)

Rural Development Ministry conducts a gap analysis

Why in News?

- Rural Development Ministry conducted a gap analysis of more than 3.5 lakh villages in the country

Gap Analysis

- The Rural Development Ministry has done a gap analysis of more than 3.5 lakh villages, in more than 1.6 lakh panchayats under the Mission Antyodaya convergence scheme.
- A team of officials surveyed and scored village level facilities and amenities using parameters

related to infrastructure, economic development and livelihood, irrigation facilities, health, nutrition and sanitation, women's empowerment, and financial inclusion.

Highlights

- At the national level, the data shows progress in some areas and also spotlights discrepancies in respect of targets met under some other government schemes.

- With multiple panchayats assigned the same score – and thus tied at the same ranking – there are 97 panchayats in the top 10 ranks. Of these, 37 panchayats are in Andhra Pradesh while 24 are in Tamil Nadu.
- The survey reveals that more than 95% of villages have electricity available for domestic use, while the government had earlier this year claimed that 100% of villages had power connections.
- With regard to sanitation, the survey shows only 58% of villages — slightly more than 2 lakh of the 3.5 lakh surveyed villages — are open defecation free (ODF). However, according to the Swachh Bharat Abhiyan-Gramin, 5.13 lakh of India's 6 lakh villages are already ODF.
- The survey also shows only 21% of villages having a community waste disposal system.
- About a quarter of all villages have more than 75% of households using clean energy, such as LPG or biogas.
- Less than 10% of the villages have more than 80% of their houses with kachha walls and roofs, indicating temporary structures. More than 73% of the villages are connected with an all-weather road.
- Financial inclusion still has some way to go, with less than 15% of villages having banks, while just more than 10% have ATMs. While more than 26% of villages have post office facilities, only 8% have a soil testing centre and almost 12% have a government seed centre.

Mission Antodaya

- 'Mission Antodaya' seeks to converge government interventions with Gram

The imperative of impact assessment

Why in News?

- There is a need for a Policy and Legislative Impact Assessment (PLIA) framework for India.

What is Legislative Impact Assessment?

- It is a document created before a new government regulation is introduced. They are produced in many countries, although their scope, content, role and influence on policy making vary.
- The role of a Legislative Impact Assessment is to provide a detailed and systematic appraisal of the potential impacts of a new regulation in order to assess whether the regulation is likely to achieve the desired objectives.
- The need for an impact assessment arises from the fact that regulation commonly has

Panchayats as the basic unit for planning by following a saturation approach by pooling resources - human and financial - to ensure sustainable livelihoods.

- It is a State - led initiative for rural transformation to make a real difference based on measurable outcomes to the lives of 1,00,00,000 households in 5,000 rural clusters or 50,000 Gram Panchayats in 1,000 days.

Implementation

- A Gram Panchayat is the basic unit for monitoring transformation and for ranking on the basis of objective criteria.
- Mission Antodaya encourages partnerships with network of professionals, institutions and enterprises to further accelerate the transformation of rural livelihoods.
- Self Help Groups (SHG) are enablers to convergence approach due to their social capital and their proven capacity for social mobilisation.
- The thrust is not only on physical infrastructure but also on social infrastructure with strengthening of agriculture, horticulture, animal husbandry activities with utmost priority given to SHG expansion in Mission Antodaya clusters.
- The states have selected Gram Panchayats/ Clusters under 'Mission Antodaya' which were covered under schemes such as ODF, DAY NRLM, Mission Water Conservation, SAGY/ Rurban Cluster, Award Winning GPs, crime / dispute free GPs or specific purpose GPs. Most of these GPs are also in the backward districts of the country.

numerous impacts and that these are often difficult to foresee without detailed study and consultation with affected parties. Economic approaches to the issue of regulation also emphasize the high risk that regulatory costs may exceed benefits.

About the PLIA Framework

- Given the current scenario, the need of the hour is an impact assessment that focuses on policy and legal frameworks before they are passed. Countries like Kenya and Finland have mechanisms in place for the assessment of regulatory and legislative proposals as an essential part of their legislative process.

Components

- A PLIA framework in India should be able to-

- Identify the policy problem, its root cause and the need for action;
- Benchmark it against available alternatives;
- Conduct stakeholder meetings and identify potential impact; and
- Pre-empt possible conflicts by identifying and planning for the mitigation of any and all negative effects of taking such an action

Nutrition on My Plate

Why in News?

- National Nutrition Mission (NNM) or the Poshan Abhiyan reflects an amalgamation of scientific principles, political fortitude and technical ingenuity.

Background

- According to 'The State of Food Security and Nutrition in the World 2018' report globally, 821 million people suffer chronic undernourishment of which 196 million reside in India.
- The twin burden of malnutrition — that is, undernutrition, along with overweight and obesity, coexists in many countries and its cost to the global economy is equivalent to \$3.5 trillion a year.

POSHAN Abhiyan (National Nutrition Mission)

- It is a flagship programme of the Ministry of Women and Child Development (MWCD), Government of India, which ensures convergence with various programmes i.e., Anganwadi Services, Pradhan Mantri Matru Vandana Yojana (PMMVY), Scheme for Adolescent Girls (SAG) of MWCD Janani Suraksha Yojana (JSY), National Health Mission (NHM), Swachh-Bharat Mission, Public Distribution System (PDS), Department Food & Public Distribution, Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and Ministry of Drinking Water & Sanitation.

About the Mission

- The goals of NNM are to achieve improvement in nutritional status of Children from 0-6 years, Adolescent Girls, Pregnant Women and Lactating Mothers in a time-bound manner during the next three years beginning 2017-18.
- The Abhiyan highlights a strong focus on convergent actions from the national to the village level. The key nutrition interventions and strategies, which form the core of NNM, contribute to the targets of the World Health Assembly for nutrition and the Sustainable Development Goals (SDGs), dedicating Goal 2 to the challenge of meeting "zero hunger".

Major impact

- The programme through the targets will strive to reduce the level of stunting, under-nutrition, anaemia and low birth weight babies.
- NNM targets to reduce stunting, undernutrition, anaemia (among young children, women and adolescent girls) and reduce low birth weight by 2%, 2%, 3% and 2% per annum respectively. Although the target to reduce Stunting is at least 2% p.a., Mission would strive to achieve a reduction in Stunting from 38.4% (NFHS-4) to 25% by 2022 (Mission 25 by 2022).

Drawbacks

- Nutrition security is inextricably linked to food and agriculture, yet, the agriculture sector does not clearly fall within the scope of the Abhiyan. However, there are areas where the agricultural sector could support the Abhiyan and help to achieve its objectives. In line with the Zero Hunger vision, the Food and Agriculture Organisation (FAO) of the United Nations can support ongoing NNM efforts related to dietary diversity through agricultural diversification and sustainable intensification.

Way Forward

- In order to effectively combat malnutrition, India needs to go for agricultural interventions such as increasing the production of targeted nutrition-rich crops (nutri-cereals), homestead gardens, and diversification of the agricultural production system towards fruits, vegetables and aquaculture.
- The Poshan Abhiyan advocates the "Triple A" approach, that is building the capacity of ASHA, Anganwadi Worker (AWW) and Auxiliary Nurse Midwife (ANM) workers, this can be used to extend agriculture extension services in the country.
- UN agencies such as FAO can provide support to develop and plan targeted activities for capacity building of the agriculture extension agents, so they can promote nutrition-sensitive agriculture. The support can help to foster research on areas such as bio-fortification of crops, enhancing production diversity including the coarse grains/millets and food safety.

Beyond police reform

Why in News?

- There is a need to revamp the Criminal Justice System in India. National Police Commission, in one of its reports, had made a specific suggestion for the constitution of a criminal justice review commission.

Criminal Justice Systems

- It refers to the agencies of government charged with enforcing law, adjudicating crime, and correcting criminal conduct. It is composed of three components: police, courts, and prisons which are seen as interrelated and interdependent.

Need For Reform

- Several Police procedures of investigation including the recording of statements, confessions, have now become outdated, they were codified in 1898. Since the police are a vital part of our criminal justice system, it is necessary to institute a wider spectrum of reforms rather than focusing simply on police reforms, So as to secure speedy and inexpensive justice for the common man.

Malimath Committee Report

- In 2000, a panel headed by the former Chief Justice of Kerala and Karnataka, Justice V.S. Malimath, was formed to suggest an overhaul of the century-old criminal justice system. The Union government is considering revisiting the Malimath Committee report on reforms in the criminal justice system.

Key Recommendations

- Borrowing from inquisitorial system**-The committee recommended that courts be bestowed with powers to summon any person, whether or not listed as a witness for examination if it felt necessary. In the inquisitorial system, a judicial magistrate supervises the investigation.
- Right to silence**-The panel recommended a modification to Article 20 (3) of the Constitution that protects the accused from being compelled to be a witness against himself/herself.
- Rights of the accused**-The Committee suggested that a Schedule to the Code be

brought out in all regional languages so that the accused knows his/her rights, as well as how to enforce them and whom to approach when there is a denial of those rights.

- Police investigation**-It recommended setting up of a National Security Commission and State Security Commissions. To improve the quality of investigations.
- Public prosecution**-It suggested that a new post, Director of Prosecution, be created in every State to facilitate effective coordination between the investigating and prosecuting officers under the guidance of the Advocate General.
- Courts and judges**- The higher courts, including the Supreme Court, should have a separate criminal division consisting of judges who have specialised in criminal law.
- Witness protection**-The Committee recommended a strong witness protection mechanism – it said the judge should be ready to step in if the witness is harassed during cross-examination.
- Sentencing**-The Committee is in favour of a permanent Statutory Committee to prescribe sentencing guidelines.
- Periodic review**-The Committee has recommended providing for a Presidential Commission for a periodical review of the functioning of the Criminal Justice System.
- Justice to victims of the crime**-The victim should be allowed to participate in cases involving serious crimes and also be given adequate compensation. Victim compensation is a State obligation in all serious crimes. A Victim Compensation Fund can be created under the victim compensation law and the assets confiscated in organised crimes can be made part of the fund.

SC Judgment

- In September 2006, the Supreme Court of India, in Prakash Singh Vs Union of India passed a historic judgment directing the Central and State Governments towards operational reform and functional autonomy of the police.

World Food Day-Zero Hunger Challenge

Why in News?

- The World Food Day is being observed globally on today that is October 16th. It is observed every year in honour of the Food & Agriculture Organisation of the United Nations which was founded in 1945.

The Theme For 2018

- The World Food Day theme for 2018 is '**Our actions are our future**', it calls for a global pledge to achieve zero hunger by 2030.
- FAO claims that the 'unrealistic' target can be achieved if a sustainable lifestyle is adopted

globally. According to an FAO report, in a world where millions are forced to sleep hungry every day due to poverty, 672 million people suffer from obesity and 1.3 billion people are overweight owing to sedentary lifestyle and food habits.

What is Hunger?

- Hunger is defined as a short-term physical discomfort as a result of chronic food shortage, or in severe cases, a life-threatening lack of food.
- Related terms include food insecurity and malnutrition. Food insecurity refers to limited or unreliable access to foods that are safe and nutritionally adequate.
- Malnutrition is a condition resulting from insufficient intake of biologically necessary nutrients. Although malnutrition includes both over nutrition and undernutrition; the focus for global hunger is undernutrition.
- The United Nations Food and Agriculture Organization (FAO) estimates that about 815 million people of the 7.6 billion people in the world, or 10.7%, were suffering from chronic undernourishment in 2016.

Zero Hunger Challenge

- The global Zero Hunger Challenge (ZHC) was initiated at the Rio+20 Conference in June 2012. The Zero Hunger vision reflects five elements from within the SDGs, which taken together, can end hunger, eliminate all forms of malnutrition, and build inclusive and sustainable food systems.

Main Thematic Components:

- Formulate food security and nutrition strategy, policy and coordination mechanism including sectoral policy;
- Promote nutrition-sensitive agriculture;
- Conduct data analysis and monitoring of SDGs for decision-making.

SDG Goal 2

- Goal 2 of the 2030 Sustainable Development agenda seeks to end hunger and all forms of malnutrition, and double agricultural productivity in the next 15 years. Ensuring this sustainable access to nutritious food universally will require sustainable food production and agricultural practices.

Global Hunger Index

- The Global Hunger Index (GHI), Calculated each year by the International Food Policy Research Institute (IFPRI) is designed to comprehensively measure and track hunger globally and by country and region.

- The Index ranks countries based on four key indicators — undernourishment, child mortality, child wasting and child stunting.
- In the 2018 Global Hunger Index, India ranks 103rd out of 119 qualifying countries. With a score of 31.1, India suffers from a level of hunger that is serious.

Indian Scenario

- With a five-fold increase in food grain production from 50 million tonnes in 1950-51 to about 250 million tonnes in 2014-15, India has moved away from dependence on food aid to become a net food exporter.
- The government launched a number of programmes to double farmers' incomes by 2022. These seek to remove bottlenecks for greater agricultural productivity, especially in rain-fed areas. They include: the National Food Security Mission, Rashtriya Krishi Vikas Yojana (RKVY), the Integrated Schemes on Oilseeds, Pulses, Palm oil and Maize (ISOPOM), Pradhan Mantri Fasal Bima Yojana, the e-marketplace, as well as a massive irrigation and soil and water harvesting programme to increase the country's gross irrigated area.
- The government has also taken significant steps to combat under- and malnutrition over the past two decades, such as through the introduction of mid-day meals at schools, anganwadi systems to provide rations to pregnant and lactating mothers, and subsidised grain for those living below the poverty line through a public distribution system.
- The National Food Security Act (NFSA), 2013, aims to ensure food and nutrition security for the most vulnerable through its associated schemes and programmes, making access to food a legal right.

Challenges

- The surplus food production has not been able to secure food security due to lack of purchasing power of a large section of the population.
- In spite of having a food distribution programme, last mile connectivity to the hills and hinterland is still a problem. Also, there are inclusion errors and leakages which take place and prevent the benefits from reaching the people.
- There is Lack of Infrastructure in terms of roads, storage, cold storage etc which contribute to the deterioration of the level of nutrition of the food grains and result in a high amount of wastage.

- In India Food processing and value addition is also limited, this reduces the margin of profits for the producers and hampers their purchasing power.

Way Forward

- Need to reduce post-harvest losses
- Agriculture must be made sustainable

Sabarimala -Doors Open

Why in News?

- The Sabarimala Lord Ayyappa opened for the first time since the Supreme Court's landmark verdict allowing women of all ages to enter the shrine.

Background

- The Supreme Court verdict to allow women to worship Lord Ayyappa at his temple had received praise from several women rights' groups and rationalists but irked devotees in Kerala and beyond. There have been widespread protests against it. The state government announced that it would help implement the Supreme Court verdict to allow women of all ages into the shrine. Security was tightened near the temple and around 1,000 police personnel were deployed.

SC Judgement

- The Supreme Court ruled that not allowing women in their "menstruating years" into the Sabarimala is unconstitutional and violative of Article 21, and all women should be allowed to enter the temple. The apex court was assessing the constitutionality of the Sabarimala custom of excluding women in their 'menstruating years' which was allowed by Rule 3(b) of the Kerala Hindu Places of Public Worship Act, 1965.
- It further held that the right guaranteed under Article 25 has nothing to do with gender or physiological factors.

Constitutional provisions

- **Article 14**-The State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth.
- **Article 15**-The State shall not discriminate against any citizen on grounds only of religion, race, caste, sex, place of birth or any of them.

Regulating Anonymous Donations

Why in News?

- The Election Commission has urged the government to slash the cap on anonymous donations to political parties from the present

- Advocate for Zero Hunger
- The spread of awareness and nutrition education
- linking of government programmes to increase efficiency and reduce leakages
- Promoting Local food for local consumption

- **Article 15(3)**-Nothing in this article shall prevent the State from making any special provision for women and children

Why are people protesting?

- The people who are protesting are of the opinion that the Sabarimala traditions should not be viewed through the narrow prism of women's discrimination.
- In 1991, the Kerala High Court restricted entry of women above the age of 10 and below the age of 50 from Sabarimala Shrine as the deity himself is naishtika brahmachari and thus fertile age group was not acceptable at the vicinity of the shrine.
- The anger and distress among Kerala Hindus cutting across castes is based on the feeling that their unique and age-old tradition and faith are being messed around with by those who do not have any stake in it or haven't made the effort to understand it.

Steps Taken

- Section 144 of the IPC has been imposed. Section 144 of the Criminal Procedure Code (CrPC) of 1973 empowers an executive magistrate to prohibit an assembly of more than four persons in an area. According to 141-149 of the Indian Penal Code (IPC), the maximum punishment for engaging in rioting is rigorous imprisonment for 3 years and/or fine. Every member of an unlawful assembly can be held responsible for a crime committed by the group. Obstructing an officer trying to disperse an unlawful assembly may attract further punishment.
- Over 20 review petitions have been filed by various Hindu groups and are pending in the apex Court.

Rs 20,000 to Rs 2,000 to usher in more transparency.

Background

- In a letter to the Legislative Department of the Law Ministry last week, the commission pointed out that while its demand to cap cash donations to parties to Rs 2,000 per person has been accepted and made part of the Finance Act, another demand to cap anonymous donations to Rs 2,000 is still pending. The poll panel had written to the government in the middle of 2017 to amend Section 29C of the Representation of the People Act, 1951, to put a cap on anonymous donations.

The rationale behind the move

- Since donations up to Rs 20,000 can be kept anonymous and need not be declared, there is a possibility that cash will also be accepted. This runs contrary to the bar on accepting cash donations beyond Rs 2,000

Present Scenario

- There is no constitutional or statutory prohibition on receipt of anonymous donations by political parties. But there is an "indirect partial ban" on anonymous donations through the requirement of a declaration of donations under Section 29C of The Representation of the People Act. But, such declarations are mandated only for contributions above Rs 20,000.
- According to Section 29 C of the law, the treasurer of a political party shall every financial year prepare a report on the contribution "in excess" of Rs 20,000 received by it from any person.

Political Funding In India

- The 255th Law Commission Report on Electoral Reforms observed that opacity in political funding results in "lobbying and capture" of the government by big donors.
- According to the NGO, Association of Democratic Reforms, 69% of the income of political parties is from unknown sources. But even the 31% from known sources pertains only to the income that the parties declare to the Income Tax (IT) department. It also stated that the income of national parties from unknown sources increased by 313% during the decade; for the regional parties, it went up by 652%.

Steps Recommended by the Election Commission

- The Election Commission had recommended that tax exemption be awarded only to those political parties which contest and win seats in Lok Sabha or Assembly elections.
- The EC also suggested that details of all donors who donate above ₹2,000 be made public.

- Scrutiny of the political party's financial documents should be conducted annually by a body approved by the EC and the Comptroller and Auditor General for greater transparency and accountability.

Electoral Bonds

- An electoral bond is designed to be a bearer instrument like a Promissory Note — in effect, it will be similar to a bank note that is payable to the bearer on demand and free of interest. It can be purchased by any citizen of India or a body incorporated in India. The scheme, announced during the 2017 Budget, aims to account the donations made to all major political parties.
- Only the Political Parties registered under Section 29A of the Representation of the People Act, 1951 and which secured not less than one per cent of the votes polled in the last General Election to the House of the People or the Legislative Assembly of the State, shall be eligible to receive the Electoral Bonds. The Electoral Bonds can be encashed by an eligible Political Party only through a Bank account with the Authorized Bank.

Criticism

- The most significant criticism of the electoral bonds scheme is that it will not carry the name of the payee. This will allow corporate houses to make anonymous donations through banking channels to the party of their choice. This would lead to further opacity in the funding process and further limit oversight and accountability.
- Other measures such as lifting of the maximum limit of 7.5% on the proportion of the profits a company can donate to a political party, thus opening up the possibility of shell companies being set up specifically to fund parties;
- Amendment of the Foreign Contribution (Regulation) Act (FCRA) opening the floodgates of foreign funding to political parties, especially those which have a foreign support base;
- And the refusal of political parties to come under the RTI Act in order to conceal their sources of funding all contribute to the opacity in the funding of political parties

State Funding of Elections

- State funding of elections (in various forms) is a potential solution to this problem. The Indrajit Gupta Committee on State Funding of Elections had endorsed partial state funding of recognised political parties and their candidates in elections way back in 1998, but

the lack of political will has prevented any serious discussion on this.

- The mechanics of this process need to be carefully worked out to establish the allocation

'India has to balance pressures from U.S., China and Russia'

Why in News?

- India's relationships with big powers like the U.S., Russia, China and Europe are increasingly being complicated by their rivalries with each other; the country needs to follow its traditional policy of strategic autonomy, focussing on its own vital interests.

The policy of Strategic Autonomy

- Strategic Autonomy refers to a foreign policy posture, whereby a nation maintains an independent outlook and orientation in foreign affairs with respects to the issues defining her core strategic interests.
- Strategic autonomy for India means that it would like to rely as far as possible on its own judgment on international issues, balance its relations with all major countries, forge partnerships with individual powers and take foreign-policy positions based on pragmatism and self-interest, and not because of alliance or group compulsion.

India-Russia Relations

- Indian and Russia recently signed the USD 5 billion S-400 air defence system deal. They also signed eight pacts, including on cooperation on India's ambitious human space mission project Gaganyaan, at the 19th India-Russia annual bilateral summit. The signing of a defence deal between the two countries comes amid the US warning.

USA's CAATSA

- Ever since the Countering American Adversaries Through Sanctions Act (CAATSA) was enacted on August 2, 2017, there had been much speculation in India about its potential impact on India-Russia defence relations especially in the context of India's possible purchase of the S-400 missile system.
- CAATSA is a specifically enacted legislation whose ultimate goal is to prevent revenue from flowing to Iran, North Korean and Russian Governments. The act enables the U.S. government to sanction countries that engage in significant transactions with these countries.
- The U.S. hasn't formally given India a waiver but high ranking official have stated that some relief from CAATSA may be given for countries like India citing the "strategic opportunity" that

of money to national parties, State parties and independent candidates, and to check candidate's own expenditure over and above that which is provided by the state.

India presents to the US and also the opportunity to trade in arms with India.

Strengthening Security relations with the USA

- The decision to sign the Communications Compatibility and Security Agreement (COMCASA) with the U.S. was a significant decision and means that India is not slowing down on its desire to strengthen its security relationship with the U.S.
- COMCASA stands for Communications Compatibility and Security Agreement and is one of the four foundational agreements that the U.S. signs with allies and close partners to facilitate interoperability between militaries and sale of high end technology.
- COMCASA is an India-specific version of the Communication and Information on Security Memorandum of Agreement (CISMOA). It allows India to procure transfer specialised equipment for encrypted communications for US origin military platforms like the C-17, C-130 and P-8Is. Currently, these platforms use commercially available communication systems.
- India had signed the General Security Of Military Information Agreement (GSOMIA) in 2002 and the Logistics Exchange Memorandum of Agreement (LEMOA) in 2016. The last one remaining is the Basic Exchange and Cooperation Agreement for Geo-spatial Cooperation (BECA).

Wuhan Summit-India China Cooperation

- China and India held their first informal bilateral meeting in Wuhan earlier this year. The two nations decided to strengthen the Closer Development Partnership in a mutually beneficial and sustainable and significantly enhance efforts to build on the convergences through the established mechanisms.
- Both the countries decided to "issue strategic guidance to their militaries to strengthen communication" in order to build trust and mutual understanding and enhance predictability and effectiveness in the management of border affairs, essentially to avoid another Doklam-like confrontation.
- They have addressed measures to balance the ballooning trade deficit of about \$52 billion (of about \$84 billion bilateral trade), mostly by

encouraging agricultural and pharmaceutical exports to China.

- Both the countries discussed a joint project in Afghanistan. This proposed joint economic project in Afghanistan could be instrumental in mitigating the trust deficit between the two sides.

Quad

- The Quadrilateral Security Dialogue (QSD, also known as the Quad) is an informal strategic dialogue between the United States, Japan, Australia and India that is maintained by talks

between member countries. The dialogue was initiated in 2007 by Japan it was paralleled by joint military exercises of an unprecedented scale, titled Exercise Malabar. The diplomatic and military arrangement was widely viewed as a response to increased Chinese economic and military power.

- The QSD ceased following the withdrawal of Australia, However, during the 2017 ASEAN Summits, all four former members re-joined in negotiations to revive the quadrilateral alliance.

General Studies 3

To end UPA freeze on Bt. Brinjal, regulator looks at Bangladesh

Why in News?

- GEAC (Genetic Engineering Approval Committee) has asked Bangladesh Agricultural Research Institute (BARI) to give the data regarding post effects of genetic modified vegetable in Bangladesh.

GM crops:

- Genetic modification (GM) is the use of modern biotechnology techniques to change the genes of an organism, such as a plant or animal. The necessary qualities of different organisms are inducted into the DNA of needed organism through gene modification techniques.
- Present day most of the soybean, corn, Alfalfa, Cotton etc is produced through GM technology. To fulfil the growing demand of food grains, GM crops are perfect solution. But they can be responsible for upcoming of superbugs and can destroy the ecosystem.

Genetic Engineering Approval Committee

- Genetic Engineering Appraisal Committee (GEAC) established under MoEF&CC is the apex body to accord notified under Rules 1989. For approval of activities involving large scale use of hazardous microorganisms and recombinants in research and industrial production from the environmental angle.
- The GEAC is also responsible for approval of proposals relating to release of genetically engineered organisms and products into the environment including experimental field trials (Biosafety Research Level trial-I and II known as BRL-I and BRL-II).

Background

- Bt- Brinjal is a hybrid genetically modified variety developed by Maharashtra Hybrid Seeds Company (Mahyco).
- It is inducted with gene 'cry1AC' from bacterium *Bacillus thuringiensis* which is toxic to fruit and shoot borer (FSB).
- GEAC cleared deck for Bt-Brinjal in 2006 after satisfaction from the field and recommended Ministry of Environment to clear Bt-Brinjal for commercial cultivation in 2009.

Unethical to withhold bedaquiline while waiting for Phase III results

What is MDR-TB?

- Multi Drug Resistant TB is a particular type of drug resistant TB. It means that the TB bacteria that a person is infected with are resistant to

- But the government of that time withheld it and said that it needs independent studies to prove that it doesn't affect the nature and pollinators like bees.
- When rejected in India, the company offered the technology to Bangladesh Agricultural Research Institute (BARI) and now presently almost 50,000 farmers are growing Bt-Brinjal with high yields.
- The company is also joining with Philippines which will start to grow Bt-Brinjal from next year.

Issues

- Green groups and pressure groups like Swadeshi Jagran Manch are fear that bt-crops can kill other insects like honey bees and butterflies which are pollinators. These pollinators are essential for pollination i.e., transfer of pollen grains from male flower to female flower.
- If pollinators are affected than the ecosystem may collapse which may lead to extinction of plant species.

Way-forward

- Last year too Indian government rejected the clearance of GM-Mustard which was developed by Delhi University. Its initial experiments showed that it had very high yield. GM-Mustard incorporates three foreign genes that allow for cross-pollination and development of commercially viable hybrids in a largely self-pollinating plant.
- Technological innovations which are invented in India are reaped by other nations but not us, but importing cooking oil from other countries, which rather can be fulfilled by GM crops.
- Presently, GEAC has allowed Centre for Genetic Manipulation of Crop Plants at Delhi University to conduct field demonstration studies on the impact of its GM mustard on honeybees and other pollinators.
- The data inquiry by GEAC in BARI shows positive move of India towards adopting GM crops.

two of the most important TB drugs, isoniazid (INH) and rifampicin (RMP).

- If bacteria are resistant to certain TB drugs this means that the drugs don't work. Other drugs

then need to be taken by the person if they are to be cured of TB.

- The main reason of getting MDR TB if one doesn't take the drugs exactly the ways instructed by health care provider.

What is a regimen in medicine?

- A regimen is a plan, a regulated course such as a diet, exercise or medical treatment, designed to give a positive result.

Why in News?

- The World Health Organisation (WHO) made important changes in the regimens to treat patients with multidrug-resistant TB.
- Earlier two of the injectables (kanamycin and capreomycin) and bedaquiline drug which were used to treat MDR-TB, all are brought to full oral regimen.
- The injectables were causing hearing loss and bringing ineffective treatment, hence they were removed. They are applicable to both adults and children.
- WHO is about to release guidelines regarding MDR-TB at the end of the year.

Issues:

- WHO is introducing guidelines without noting and completion of the phase III trials of drug bedaquiline.
- Phase IIb trial which did trials on smaller number of MDR-TB patients showed that the drug was cardio-toxic and hepatotoxic (toxic to the liver) and seemed to cause more deaths. In 2013 WHO gave statement about bedaquiline that it must be used only as a last option or in serious or life-threatening conditions.

Why pushing for Bedaquiline?

- Given present conditions are concerned, bedaquiline is the only drug which is extensively studied on par with drugs like delamanid, on which experiments are yet to be done.

Stubble Burning in Punjab & Delhi air pollution

Why in News?

- Despite the official's warning or order, the farmers in Punjab set fire for the Paddy stubble to preparing the fields for winter crop.

What is Stubble burning?

- Stubble burning is the deliberate setting fire of the straw stubble that remains after wheat and other grains have been harvested. This is cited to be the Major Causes for Delhi Air pollution.

Why do Farmers Burn Stubble?

- The high yield producing crops also produce the lot of straw, this make the farmers more difficult to incorporate the straw into the soil

- MDR-TB is spreading fast and killing hundreds of people. Globe needs drug which can save life. Part of the WHO core mandate is to ensure that MDR-TB patients have access to life-saving treatment so they are pushing bedaquiline.
- If the drugs are withheld till completion of phase III trials, then it would unethical to do injustice to people who are reaching death because of MDR-TB.
- None of the second-line medicines for MDR-TB treatment are without adverse effects. But most of the adverse effects can be managed if detected rapidly, with the exception of ototoxicity (hearing loss), which is irreversible and associated with the injectable drugs.
- Phase III trials are important for reviews done by GRADE and also for WHO public health policy development

What is GRADE?

- The Grading of Recommendations Assessment, Development and Evaluation (short GRADE) working group began in the year 2000 as an informal collaboration of people with an interest in addressing the shortcomings of grading systems in health care.

Way forward:

- WHO has recommended that all patients receiving newer drugs such as bedaquiline be closely monitored using dedicated and standardised active pharmacovigilance [monitoring the effects of drugs] measures.
- WHO has also established a global Active TB Drug Safety Monitoring and Management (aDSM) database to generate evidence on safety of MDR-TB regimens utilising the newer TB drugs.
- It has also said that it will release a Companion Handbook with the guidelines so that it would be easy for clinical management and monitoring of drug adverse effects.

- So it has become a traditional practice for farmers to burn the Straw in some areas. It's estimated That 15 million tonnes of paddy straw are burnt every year in Punjab

What are the Implications?

- Open burning of Stubble is Incomplete Combustion in Nature & large Amount of the Methane, Carbon monoxide, Volatile Organic Compound are Emitted.
- It also produce large amounts of PM 2.5 and PM 10 (tiny toxic dust particles), the most common primary pollutants in the country.

- The retreating of southwest monsoon & setting off north westerly Winds carrying the smoke from the stubble & blows into the plains of North India.
- It causes the Fears of air pollution across the northern states of India particularly the Delhi Air Pollution.

Delhi Air pollution & Stubble Burning:

- The authority predicted that Delhi Air pollution in future days will be very poor category, which brings the NCR in emergency.
- IIT Kanpur studies shows that, 17-26% of all particulate matter in Delhi in winters is because of biomass burning.
- The Base Pollution of Delhi is already low & This Coincides with the north westerly winds which carry the stubble dust to Delhi.
- But the Delhi air pollution is not only due to the stubble burning & it also coincides with the winter and pollution from Diwali.

Government data on Delhi Air pollution:

- PM 10 & PM 2.5 level reduced significantly in September & October 2018, when compared to the last years in Delhi.
- Significant reduction in number of active fire incident in Punjab & Haryana, when compared to the last year

Climate Change & Air Pollution:

- Air pollutants contribute to Climate change by blocking sunlight, thus the Climate Change impacts the air flow & changes way in which pollutants are dispersed.
- This stagnant weather results in poor distribution of air pollutants and increases intensity of duration of stay of pollutant in atmosphere.
- The Climate Change changes the amount and pattern of precipitation, where lesser rains means increased stay of air pollutants in atmosphere.

Government recent response for Delhi Air Pollution:

- Recently Government launched the air quality early warning system for Delhi to predict the extreme Air pollution and give alerts to take necessary steps as per Graded Response Action Plan (GRAP) of the Government of India
- Increase in frequency of public transportation in Delhi & Integration of mass rapid transport system with the other mode of transport

From food security to nutrition security

Introduction:

- Biotechnology can be a game-changer in the battle against malnutrition in much the same

- Ban on usage of pet coke & usage of the better fuel quality in Delhi.
- Operation of the eastern peripheral expressway, which divert vehicle traffic from Delhi
- Since the trucks are the major Polluters, Delhi get the 13 entry point with the radio frequency identification (RFID) for toll Collection. Which reduce the entry of Truck

Government Response to the Stubble Burning:

- The Centre and state governments of Punjab, Haryana, Delhi and Uttar Pradesh have been working with NASA to found that crop residue burning is a major contributor to air pollution.
- NGT has fixed the Environmental penalties for Landowners who involved in the stubble burning.
- Punjab Government recently set up a paddy straw challenge fund for the technological solutions on crop residue management.
- Central PSU Hindustan petroleum Corporation Ltd announced to Setting up of India's first 2-G Ethanol Bio-refinery plant, where Large Scale Production of Ethanol from paddy straw is being explored.
- Punjab Government has provided the Agro-Machines such as mulchers & choppers at Subsidised rates to farmers & co-operatives societies.

Why Stubble Burning is Still Continuing?

- The numbers of Machines are inadequate which is in the rate of 1 machine per Co-op Societies approx.
- The increase in the diesel price makes use of machine costlier.
- The use of this machine can take more time, but the time period between the harvesting of Paddy & sowing of next crop is very less.

What is the Alternative to the Stubble Burning?

- Make the Agro-Machine farmer friendly in all aspect.
- Give subsidies to Diesel for using in agro machines
- Burying crop residues by ploughing uses a lot of fossil fuel and is not good for soil quality. Incorporation into the soil surface by lighter tillage is associated with weed problems.

way that the Green Revolution was in ensuring self-sufficiency.

The role of Biotechnology in the Indian Food Industry:

- In 1943, the Bengal Famine claimed 1.5 to 3 million lives. After independence, India faced the challenge of feeding 330 million people.
- The situation became grim when the country was hit by back-to-back droughts in the mid-1960s.
- India became heavily dependent on the PL 480 food aid from the US. Self-sufficiency in food grains became the country's top policy priority.
- In the early 1960s, India imported 18,000 tonnes of the semi-dwarf high yielding (HY) wheat variety, developed by Borlaug and his team from Mexico, these wheat varieties proved to be the forerunner of the Green Revolution.
- Indian scientists adapted the imported germplasm to create indigenous varieties like Kalyan, the HY miracle rice, IR8 etc.
- The rice breeding programme produced Padma and Jaya, the first indigenous HY rice varieties. These became the centrepiece of India's rice revolution.

Where does India stand today in terms of wheat and rice?

- While the country's population has grown by more than four times, from 330 million in 1947 to 1.35 billion in 2018, India's wheat production has increased by over 15 times in roughly the same period from about 6.5 MMT in 1950-51 to 99.7 MMT in 2017-18.
- India contributes about 13 percent of the world wheat production, next only to China whose share is about 17 per cent. Rice production has shot up by about 5.5 times — from 20.6 MMT in 1950-51 to 112.9 MMT in 2017-18.

Falling short on counts

Introduction:

- Prime Minister Narendra Modi's signature Ayushman Bharat programme, rolled out and it is being celebrated by most in the mainstream media as nothing short of 'revolutionary', with some even calling it the 'biggest health care programme in the world'. Whether there is truth in this claim, is to be seen.

What is Ayushman Bharath scheme?

- The programme is aimed at making interventions to address health holistically, in primary, secondary and tertiary care systems. The initiatives under the programme are:
- Health and Wellness Centre - National Health Policy, 2017 envisioned Health and Wellness

- India has a 23 per cent share in world rice production, next only to China whose share is about 29 per cent. India is also the largest exporter of rice in the world with about 12.7 MMT, during 2017-18.

Status of Nutritional Security of our country:

- Though India has food grain surpluses, the country faces a complex challenge of nutritional security.
- FAO's recent publication, The State of Food Security and Nutrition in the World, 2018 estimates that about 15 percent of the Indian population is undernourished.
- More than 38 per cent of Indian children aged below five years are stunted and 21 percent suffer from wasting.
- Several factors ranging from poor diet, unsafe drinking water, poor hygiene and sanitation, low levels of immunisation and education, especially that of women, contribute to this dismal situation.
- But latest innovations in biotechnology that uses bio-fortification of major staples with micronutrients like vitamin A, zinc and iron can be game changers.
- Bio fortification is the idea of breeding crops to increase their nutritional value. This can be done either through conventional selective breeding, or through genetic engineering.

Conclusion:

- Innovations in bio fortified food can fight malnutrition only when they are coupled with supporting policies; the government needs to take active steps to promote biotechnology to fight malnutrition in our country.

Centres as the foundation of India's health system.

- Under this, 1.5 lakh centres will bring health care system closer to the homes of people.
- The centres will provide comprehensive health care, including for non-communicable diseases and maternal and child health services.
- These will also provide free essential drugs and diagnostic services.
- National Health Protection Scheme - This will cover over 10 crore poor and vulnerable families.
- This would translate to around 50 crore beneficiaries.

- The scheme provides coverage of up to Rs. 5 lakh per family per year for secondary and tertiary care hospitalization.
- This is said to be the world's largest government funded health care programme.
- Besides, 24 new Government Medical Colleges and Hospitals will be set up, by up-grading existing district hospitals in the country.
- This would ensure that there is at least 1 Medical College for every 3 Parliamentary Constituencies.
- Also, at least 1 Government Medical College in each State of the country.
- This is to further enhance accessibility of quality medical education and health care.

Is health insurance effective?

- While in Modi-care (Ayushman Bharath) more number of people are covered in Obamacare more funds were allocated and it is not an narrowed insurance scheme.
- Though Insurance based schemes are mostly preferred because they are better in targeting and reduces the finance bill of the government. The health insurance schemes have their own challenges:

Resisting resistance

Why in news?

- A probe by The Hindu and The bureau of Investigation Journalism has found that multinational companies in area of veterinary drugs like Zoetis (US company) are selling antibiotics to Indian farmer which increases the weight of animals and makes them grow faster. But they also lead to increase resistance in microbes and can lead to emergence of superbugs.

India and antibiotic resistance:

- AMR is of particular concern in developing nations, including India, where the burden of infectious disease is high and healthcare spending is low. **The country has among the highest bacterial disease burden in the world.** Antibiotics, therefore, have a critical role in limiting morbidity and mortality in the country.
- According to a 2016 PLOS Medicine paper, out of 1 lakh deaths in India, 416 of die of infectious diseases each year. If antibiotics stop working, India will be the first to feel the heat.
- To tackle the first source, India classified important antibiotics under **Schedule H1 of the Drugs and Cosmetics Rules 1945**, so that they couldn't be sold without prescriptions. Still, Schedule H1 drugs are freely available in

- The insurance scheme does not cover the "Out of Pocket" expenses which is 65% of the health spending.
- The insurance scheme only causes increase in private hospitalisation and focus in public health system is reduced.
- The insurances are also associated with inflation problem; the insurance prices quoted do not reflect current inflationary prices.
- The insurance companies focus is not welfare but profit.

Way forward:

- Experience tells us that there is no short-cut to universal health coverage. Countries like Thailand and Mexico have achieved it through significant provisioning to public health infrastructure.
- In Thailand, all sub-districts have health centres, serving 3,000-5,000 people, and all districts have a district hospital, serving 30,000-50,000 people. Hence the glaring health insurances are to be replaced with universal health coverage to achieve true success in health sector.

pharmacies, with state drug-controllers unable to enforce the law widely.

- According to a 2013 estimate, around 58,000 new-borns die in India each year due to severe infections from resistant bacteria. When these numbers mount, India will have no one to blame but itself.
- In India, several initiatives are under way to address the problem. A national antibiotic policy is being prepared which highlights about the hospitals incorporating into their guidelines. The government is urging hospitals to get **accredited with the National Accreditation Board for Hospitals and Health Care Providers** which will result in practices relating to judicious use of antibiotics
- Though there are many interventional studies in developing countries, very few studies have been conducted to improve the use of antimicrobials and evaluate the evidence of their effectiveness in India
- Before recommending a series of interventions, it will be necessary to investigate the relative effectiveness of different strategies in the Indian context. Implementation and follow up of intervention research should be strengthened by health care planners, managers and practitioners to identify the

most appropriate strategies to improve drug use and prevent the emergence of drug resistance.

- India's 2017 National Action Plan on Antimicrobial Resistance did talk about restricting antibiotic use as growth promoters.

Challenges

- Strengthening of Surveillance Data
- Standard Operating Guidelines
- Improvement in antibiotic prescription practices
- Over the counter sale of antibiotics
- Poor sanitation, endemic infections, malnutrition
- Limited public awareness and government commitment
- Lack of coordination and fragmentation of effort
- Perverse incentives.

An issue that needs to be addressed in India is the regulation of the medical sector, particularly in the prescription of medicines. **Lack of knowledge among medical practitioners as well as general public on rational use of antibiotics** aggravates the issue.

National Action Plan on Antimicrobial Resistance 2017

- National policy for containment of antimicrobial resistance 2011 is the recent development and welcome step by Ministry of Health and Family Welfare, Government of India which address the intervention strategies required and the steps for formulation and implementation of a standard antibiotic policy
- The following are the specific objectives of the NAP-AMR:
 1. Define the strategic priorities, key actions, outputs, responsibilities, and indicative timeline and budget to slow the emergence of AMR in India and strengthen the organizational & management structures to ensure intra- & inter-sectoral coordination with a One Health approach;

Security architecture without the mortar

Introduction

- Many of India's national security inadequacies stem from the absence of a national security vision.
- In April this year, the Central government set up a **Defence Planning Committee (DPC)** to assist in the creation of "national security strategy, international defence engagement strategy, roadmap to build (a) defence manufacturing ecosystem, strategy to boost

2. Combat AMR in India through better understanding and awareness of AMR, strengthened surveillance, prevention of emergence and spread of resistant bacteria through infection prevention and control, optimised use of antibiotics in all sectors, and enhanced investments for AMR activities, research and innovations; and
3. Enable monitoring and evaluation (M&E) of the NAP-AMR implementation based on the M&E framework.

- The Ministry of Health and Family Welfare has recently notified 3 governance mechanisms towards this – an Inter-sectoral Coordination Committee, a Technical Advisory Group and a Core Working Group on AMR.
- National Centre for Disease Control (NCDC), New Delhi is the focal point for implementation and coordination of the AMR programme. Ten network laboratories in different parts of the country are part of a surveillance network on four common bacterial pathogens of public health importance. The network laboratories and pathogens are being expanded in a phased manner and 30 laboratories are targeted in the next couple of years to generate quality data on antimicrobial resistance for pathogens of public health importance.

WAY FORWARD

- Drawbacks like inclusions of provisions on antibiotics in wastewaters, veterinary use should be brought under the action plans.
- Awareness should be key of the program and should reach the people of grassroot. Medicos and doctors should take the lead and prefer antibiotics only in necessity.
- A stricter law in veterinary pharmacy should be brought to cut down illegal use of antibiotics for profit.
- Prescription of doctors should be made mandatory.

defence exports, and priority capability development plans".

- Earlier this month, it also decided further centralise the national security and defence decision making in the Prime Minister's Office (PMO) under the National Security Adviser (NSA).
- But will the above moves alone improve the security of our country is a question that we need to look upon.

Absence of defence reforms:

- **India spends close to \$50 billion** annually on defence and yet there are serious concerns about the level of our defence preparedness.
- Though the government keeps giving the feel-good claim that the Indian Army is always ready to fight a **“two-and-a-half front war”** (The phrase "two and a half front war" means that the Indian armed forces are prepared to simultaneously fight conventional wars on the North and West, while also battle any insurgency that might be happen at that time in the hinterland), it might be useful to speculate on the potential outcome of such a scenario.
- But worryingly, India might be ill-equipped to fight the wars of the modern age. What India requires then is not empty promises but **long-term strategic thinking**, of which there is little in sight.
- One reason why there is little return for the \$50 billion lies in our **almost non-functional higher defence organisation**.
- India's defence policy is on auto-pilot with **hardly any political oversight or vision**.
- This will soon become unsustainable for a country that aspires to be a modern great power.

Absence of coordination among the armed forces:

- There is **little conversation between the armed forces and the political class**, and even lesser conversation among the various arms of the forces.
- One of the most serious problems in our defence management is the **absence of cohesion in the Indian armed forces**.
- Our doctrines, command structures, force deployments and defence acquisition continue as though each arm is going to fight a future war on its own.

In the neighbourhood:

Lessons from the Philippines

Introduction:

- India has largely focussed its health schemes on the affordability and accessibility, but medical care is not just a matter of accessibility and affordability but also quality.
- As India prepares to fight the emerging problem of chronic non-communicable diseases it has many lessons to learn from Philippines which has achieved success in this regard.

Health Expenditure:

- China has progressed a great deal in military joint-man ship, and Pakistan is doing a lot better than India.
- In India, talk of appointing a **Chief of Defence Staff (CDS)** has died down. The CDS model envisages a close degree of coordination and synergy among the tri services by appointing a person who would be the head of military operations and the most senior advisor to the government on all matters related to the military.
- Leave alone appointing a CDS, even the key post of military adviser in the **National Security Council Secretariat (NSCS)** remains vacant.
- The National Security Adviser (NSA) is the senior official on the National Security Council (NSC) of India, and the chief adviser to the Prime Minister of India on national and international security policy.
- We must also remember that the post of the NSA is not a legally-mandated one. An unelected and retired official with no parliamentary accountability has come to occupy such a crucial position in the country's national security decision making, and this is not healthy in a parliamentary democracy.

Way forward:

- At the end of the day, many of India's national security inadequacies stem from the absence of a national security/defence vision.
- Ideally, **the country should have an overall national security document from which the various agencies and the arms of the armed forces draw their mandate** and create their own respective and joint doctrines which would then translate into operational doctrines for tactical engagement.
- In the absence of this, as is the case in India today, national strategy is broadly a function of ad-hocism and personal preferences.

- The first achievement of Philippines is the implementation of robust financial reforms in health care. How does the government spend more on the health of its people?
- In the Philippines, the government was able to multiple the spending on health by financing it through sin taxes from tobacco and alcohol. These excise taxes added to tobacco and alcohol were “attributed” to health by **legislation**.
- **This is a unique approach and the first in the world wherein a law was made to fund**

the public health, specifically towards Universal Health Coverage (UHC).

- This move on health-care financing led to larger health expenditure, which then led to a modernisation of thousands of public hospitals in the Philippines.
- For India, a better health-care spending will not only make it accessible to all but also will enable the government to procure advanced medical technology from around the world to enter the Indian market.
- As India grows economically and socially, the shift in the disease burden is becoming more pronounced. Today, non-communicable diseases are posing a challenge to health-care services in the country.
- The government must recognise the gaps in the health system and bridge them to make modern and equitable services accessible to the poor.

Problems of Ghost gear

What is Ghost Gear?

- Ghost gear refers to any fishing equipment or fishing-related litter that has been abandoned, lost or otherwise discarded in water bodies. It's also referred to as 'derelict fishing gear' or 'fishing litter'.
- The Problem of ghost gear has grown from fishing fallout, which is also called Ghost fishers.
- Ocean currents Carry them for the thousands of Kilometres across ocean floor and causes Injuring & drowning marine life.

Why in news?

- Recently Kerala Fishermen hauled 400 kg of fishing nets from sea in Kerala's, south coast.
- Other Report also cited that the Sea divers regularly went to underwater just to extract nets that have sunk to the ocean floor off India's coasts from TN to Maharashtra.

What are the consequences?

- 528 Olive Ridley-s out of 601 sea turtles being entangled in ghost gear near the Maldives, These Olive Ridley-s come in thousands to Odisha coast to nest.
- 5400 Marine Animals belonging to 40 species were recorded as entangled in ghost gear Worldwide. These include Whales, dolphins, sharks & even pelagic birds.
- Entire fishing community are affected especially in developing countries like India.

Status of Ghost gears in Indian Coast:

Towards quality:

- The next challenge in implementing UHC in India is providing quality health care with a focus on patient safety.
- The government needs to invest to meet the costs that are involved in bringing the most innovative and effective medical technologies to India. They may seem expensive as an investment, but in the long run will be cost effective.
- Global technological advancements coming to India also require trained medical personnel such as radiology technicians, sonologists, etc. so we need to skill the manpower just like Philippines.

Conclusion:

- India should open its doors to global medical advancements and encourage investment in the health sector like Philippines to achieve progress in health sector.

- 76 Publications & other sources of literature revealed that, there is huge gap in data from the Indian Ocean, Southern Ocean & Arctic Ocean.
- But now, there are no data pertaining to the extent of prevalence of ghost gear in India's coast.
- The Discarded Indian & Thai Fishing nets have been fished out of Maldivians Coast.

What is the Counter Measure for the problem of Ghost gear?

- ICAR- Fisheries technology, Kochi studies the ghost nets in Gujarat, Andhra Pradesh, Kerala & TN. The report were submitted to the UN Food & Agricultural organization but the result was not been released yet.
- The Global Ghost Gear Initiative (GGGI) is the first initiative dedicated to tackling the problem of ghost fishing gear at a global scale. Its participants including the fishing industry, the private sector, academia, governments, intergovernmental and non-governmental organizations.
- In Canada & Thailand fishermen retain the used nets and recycled into the yarn

Way Forward:

- Educating the fishing communities about the effects of ghost gear.
- Recycling of the damaged nets eg. in Kollam Ghosts Nets used to paved the roads.
- Government wants to bring stringent policy/act to counter the problem of ghost gear.

Cleanliness & Godliness

Why in news?

- Immersion of Ganesh Idols in water during the Ganesh Chaturthi celebration witnessed considerable media attention & the public consternation at the environmental destruction.

Facts about Idol immersion in India:

- CPCB studies revealed that every year at least 15,000 idols of Goddess Durga are immersed in the Hooghly River alone.
- The effects of idol immersion on various water bodies of India like Bhoj wetland, Budhabalanga river, Ganges river and Yamuna river, Hussainsagar lake, Kolarriver, Tapi river, north and west lakes of Bangalore have been observed so far.

What are the Problems in God Idols?

- Idols are constructed by plaster of Paris, clay, cloths, small iron rods, bamboo and decorated with different paints such as varnish, water colours etc. which will harm to the aquatic ecosystem.
- The research has found that the oxygen level in water bodies falls drastically after the Ganesh Chaturthi.
- It showcased an opportunity to see the failure of the Swachh Bharat campaign.

What is Plaster of Plastic?

- POP (calcium sulphate hemihydrates) is a building material made from Gypsum which is heated up to 150°C. It is used for making casts for broken bones.

Rajasthan Zika strain close to Brazilian strain

Introduction:

- With 80 laboratory-confirmed cases of the Zika virus already in Jaipur, including 22 pregnant women, the latest outbreak in Rajasthan is India's most severe so far.
- This strain is different from the Gujarat patients strain, and the Rajasthan Zika strain is found to be more close to the Brazilian strain.

Different from Gujarat:

The Rajasthan outbreak is different from the Gujarat cases in several important ways:

1. First of all, the Rajasthan outbreak is largest in India.
2. The Rajasthan virus spread happened mostly due to mosquitos unlike Gujarat which was more of person-person spread.
3. Uncontrolled mosquito breeding has been high in Rajasthan.

- It is an insoluble powder and forms an impermeable layer on the bottom of pond or lake & it's catalysed by adding sodium chloride to it.
- Plaster of Paris doesn't get dissolve easily in water. After immersion it takes more than 48 hours to get dissolve in water.

Effects of idol immersion:

- Paints used in idols contains various heavy metals such as Mercury, Cadmium, Arsenic, Zinc, Chromium and Lead, which are potent carcinogens
- The floating materials released through idol in the river and lake after decomposition result in eutrophication, increase in acidity and heavy metal concentration.
- Heavy metal pollution caused by idol immersion can damage the ecosystem as it kills fishes, damages plants, blocks the natural flow of the water, causing stagnation, which makes the water unfit to drink.

Alternative Solution:

- Connect the Polluter Pays Principle (PPP) to Swachh Bharat, which not only deters pollution but also incentives alternatives.
- Making the idols out of Chocolate, Bananas & other degradable materials.
- Public should be educated on ill effects of immersion in the holy water bodies through mass awareness programme.
- Implementation of the CPCB, general guidelines for idol immersion.

4. Though spread of virus is very quick in Rajasthan, most of the cases has been very mild.
5. In Rajasthan it was also observed that 60 out of 72 patients who got treatment were also healthy.

Similarities with Brazilian strain:

- The Rajasthan Zika virus strain is found to be close to the Brazilian strain where the condition of microcephaly was found.
- Brazilian strain is quite different from zika strain from other parts of the world, because microcephaly is a common condition in Brazilian zika virus.
- **Microcephaly a condition in which the baby is born with unusually small head.**
- Microcephaly was first linked to Zika during the Brazilian outbreak. This outbreak, which spread to 28 countries, was unusual because of

its size, as well as the number of microcephaly cases.

- Even though Zika has been in Asia for several years, outbreaks here were small and saw **no microcephaly**.

What is Zika Virus?

- Zika is spread mostly by the bite of an infected **Aedes** species mosquito which bites during the day time and currently it's reported in 86 countries worldwide.
- Zika virus is similar to the dengue, yellow fever & west Nile virus.
- Zika virus can be transmitted through sexual intercourse.
- It was discovered in 1947 in Uganda from monkey.

Sikkim Become the World's First Organic Agriculture State

What is Organic Agriculture?

- It's a method of farming, which aims at cultivating the land and raising the crops by keeping the Soil alive
- It uses the natural substance by prohibiting the synthetic substance like chemical fertilizers and pesticides.
- Mixed cropping is one of the methods of organic farming.

Why in news?

- Sikkim has won this United Nations Food and Agriculture organizations (FAO) Gold award for Future policy to its achievement in becoming the World's first totally organic agriculture state.

Why Sikkim won this award?

- Sikkim won this award for its Policy "Agro ecology and Sustainable food systems".
- This Policy helped more than 66,000 farmers of Sikkim and boosted the tourism.

What is the Status of Organic Farming in Sikkim?

- In 2003, Sikkim became the first Indian state, to officially announce the adoption of organic farming.
- In 2010, Sikkim organic mission was launched.
- Sikkim was declared as fully organic state in 2016 by PM Modi after phrasing out chemical fertilizers and pesticides with the sustainable alternatives
- The agricultural land is gradually converted into certified organic land as per the guidelines laid down in National Programme for Organic Production.

Status of organic Farming in India:

- In 1980's it expanded to the Equatorial Asian Countries Including India.
- The Zika Virus disease continues to be on disease surveillance radars of Union Health Ministry although it is no longer a Public Health Emergency of International Concern vide by the WHO notification.

Conclusion:

- A proper awareness campaign is vital to contain the Zika outbreak in Jaipur. With rainy season approaching, the breeding ground of mosquito, proper preventive measures are needed before it turns out to be an health disaster.

- Oceania has the largest share of organic farming land in world, where India is placed ninth in the list.
- India is home for 30% of Organic product worldwide and it is also the largest exporter of organic cotton.
- Kerala, Mizoram, Goa, Rajasthan and Meghalaya have declared their intention to shift to fully organic cultivation.
- Last year Andhra Pradesh Government launched the "Zero Budget Natural Spiritual Farming technique" to enhance the organic farming.
- Organic farming is promoted through schemes like National Mission for Sustainable Agriculture (NMSA)/ Paramapragat Krishi Vikas Yojana (PKVY), Rashtriya Krishi Vikas Yojana (RKVY), Mission for Integrated Development of Horticulture (MIDH), National Mission on Oilseeds and Oil Palm (NMOOP)

Advantages of Organic Farming:

- It enhances the agro- ecosystem health and Biodiversity.
- It protects the long term fertility of soil and nitrogen self-sufficiency of the soil by nitrogen fixation.
- Organic farming products have a good market demand.

What is UN FAO Future policy Award?

- The Future policy awards celebrate policies that create better living conditions for current and future generations.
- The awards identify one topic on which policy progress is particularly urgent to raise global awareness for exemplary policies and speed up policy action

Ways to improve organic farming in India:

- Educate and train the farmers on how to tackle pest attacks which is prevalent in organic farming.

Slippery slope: on India's energy needs

Introduction:

- India's economic fortunes continue to be tied to the sharply fluctuating price of oil.
- At a gathering of prominent oil ministers in New Delhi, Prime Minister Narendra Modi urged the oil-producing countries to reduce the cost of energy in order to aid the global economy in its path towards recovery.

India's current situation:

- India's policymakers now face the difficult task of safely steering the economy in the midst of multiple external headwinds.
- For one, the **current account deficit widened** to 2.4% of gross domestic product in the first quarter of 2018-19 and is expected to reach 3% for the full year.
- The **rupee, which is down** about 16% since the beginning of the year, doesn't seem to be showing any signs of recovery either.
- Further, the growth in the sales of petrol and diesel has already been affected adversely as the **oil prices have shot up** through the roof.
- All this will likely weigh negatively on the prospects of the Indian economy, the world's fastest-growing, in the coming quarters.

What can be done?

- The **partial use of the rupee instead of the U.S. dollar** to pay for oil can be negotiated with our oil exporting countries.
- We need a **steep cut in Central and State taxes** for the benefit to carry through to the consumers, which, of course, is unlikely given the government's fiscal needs.

- Improve the infrastructure such as cold storage facilities as most of the organic farming products are highly perishable.
- Introduce the efficient Organic farming policies, to enhance its spread

- Another long-term solution to the oil problem will be to increasingly **tap into domestic sources of energy supply** while simultaneously encouraging consumers to switch to **green alternatives**.
- The government could look to **diversifying** its international supplier base to manage shocks better.

How India has diversified its energy needs at present:

- India has taken a lead in International Solar Alliance (ISA) with 60 solar-rich countries. ISA can potentially replace OPEC as the key block of supplier of energy in the world. With the falling prices of solar, we can easily achieve his idea of "One World, One Sun, One Grid".
- OLAP under HELP is now a continuous process backed by a transparent data repository, enabling reduction in corruption and thereby the prices of oil.
- We also have been giving a big push towards harnessing bio-fuel with the launch of National Bio-Fuel Policy of 2018. This will also contribute to PM's commitment of doubling the farmer's income by 2022.
- On furthering the agenda for energy security, our cabinet has recently approved the second phase of building strategic oil reserves in Odisha and Karnataka.

Conclusion:

- India must diversify its energy basket and its energy suppliers more proactively, to deal with its energy demands.

YOJANA - Women Empowerment – Part I

“To awaken the people, it is the women who must be awakened. Once she is on the move, the family moves, the village moves, the nation moves.” Pandit Jawaharlal Nehru

Introduction

- A woman represents the concept of Nari Shakti (power of one woman) that has existed in the Indian culture since time immemorial, worshipped in forms of Durga, Kali, Mahishasura, Mardini and Bhagwati, while on the other side is the grim picture of woman who has no voice, decision and aspirations of her own. They are confined and submerged in their responsibilities as mother, wife and daughter.



- But the modern women are no longer confined to the four walls of the house. Almost every 5th women has become an entrepreneur breaking the glass barrier in the field of technology, space science, sports and the armed forces.
- Government has also played a significant role in bringing about this transition right from protecting the girl child in the womb to protecting her career in the work place through various schemes as underlined:

For ensuring educational and financial security

- **PM Matru Vandana Yojana:** It is a Maternity benefit programme implemented in all the districts under the provision of the National Food Security Act, 2013 that provides a conditional cash transfer and wage compensation for pregnant and lactating women.
- **Beti bachao ,beti padhao:** (BBBP) scheme for survival, protection & education of the girl child addresses the issue of declining Child Sex Ratio (CSR) through a mass campaign across the country to change the societal mindsets.
- **Sukanya Samridhi Yojana:** It is a small deposit scheme for girl child, as part of ‘Beti Bachao Beti Padhao’ campaign with a yearly

interest rate of 9.1% and an income tax deduction under the Income Tax Act, 1961.

For health and nutritional requirement

- **Ayushman Bharat:** It is an initiative to address Health related issues in the primary, secondary and tertiary care systems covering both prevention and health promotion along with the provisions of cashless benefits of 5 lakhs to 10 Crore Poor Families in the Country.
- **National nutrition mission:** It strives to reduce the level of stunting, under-nutrition, anaemia and low birth weight babies with better monitoring while encouraging States/UTs to achieve the targeted goals.
- **Ujjwala Yojana:** It aims to reduce the health hazards of indoor pollution by providing free LPG connections to women from BPL Households

Entrepreneurship development

- **Pradhan Mantri mudra Yojana:** It is a flagship scheme of Government of India to enable a small enterprise come into the formal financial system with affordable credit.
- **Stand up India:** It enables Scheduled Castes, Scheduled Tribes and women entrepreneurs to access loans with a target of creating 2.5 lakh such entrepreneurs across the country.
- **Start-up India:** It is an effective action plan to promote bank financing for start-ups.
- **SHGs:** they are the informal associations of people who choose to come together to find ways to improve their living conditions by building social capital among the poor, especially women.

Financial inclusion

- **PM Jan Dhan Yojana:** Its objective is to eradicate financial exclusion by providing banking facilities and a bank account for each household. Within 2 years it has brought in 16.34 crore women under the banking system.

Safety and security

- **Sexual harassment of women at work place Act:** Central government has launched an

online complaint management system called "Sexual Harassment Electronic-Box (SHe-Box)" for registering complaints related to sexual harassment at workplace.

- **One stop centres and panic buttons:** One Stop Centres (OSC) is intended to support Women facing physical, sexual, emotional, psychological and economic abuse. Panic button has been made mandatory for all mobile phones to enable users make emergency call easily.

For Muslim women

- **Triple talaq bill:** It helped ensure the larger Constitutional goals of gender justice and gender equality of married Muslim women under the fundamental rights of non-discrimination and empowerment.
- Road to development cannot be travelled without the empowerment of women who constitute 50% of the Indian population.

Empowering the women with women led development

- Women make up nearly half of India's population. Over the years we have increasingly seen women grow in public life-working in offices , representing us on the international sports arena ,in bureaucracy, politics, international organizations and much more .In the workplace today, every fourth worker in India is a women.

Recent developments

- The first female fighter pilots have recently been appointed in the Indian air force.
- The participation of women in combat roles in the army is also strongly under consideration.
- India's successful launch of the Mangalyaan (The Mars Orbiter Mission) and the record breaking 104 nano satellites launched into orbit onboard a single rocket had a team of women scientists behind them.
- The literacy rate has risen from a mere 9% in 1951 to 65 % in 2011.
- One third of the certified engineers are now women, three fourth of all health workers at primary level are women, almost one third of all certified medical researchers ,banking employees, IT workers and chartered accountants are women and every fifth entrepreneur is a woman.

- In politics too elected women representatives now make up about 46% of our Panchayat members.
- Institutional births (giving birth to children at hospital) have given rise to an all-time high of 79% in 2014-15 which is better for the child as well as the mother.
- Women's financial inclusion has increased number of women with bank or savings account which they operate themselves has increased from just 15% in 2005-06 to 53 % in 2015-16.

Empowering them has various facets:

Ending discrimination:

- We hear horrific incidents of violence every day. Young girls drop out of school to look after their siblings or to be married. Women still contribute a disproportionate amount of unpaid work in their homes and farms. A number of legislations have been passed to encourage women in education and formal workforce and ensure their overall well-being and provide them safety in public and private spaces.

Financial empowerment

1. 75% of the MUDRA loans (scheme that offers credit facilities to micro and small enterprises engaged in income generation) have been given and 9.81 women entrepreneurs already benefitting from them under this scheme.
2. Over 47 lakh self-help group have been promoted under the National Rural Livelihood Mission.
3. Pradhan mantri Kaushal Vikas Yojana (PMKVY) has awarded half of the certificates to women candidates.
4. PMKVY: The objective of this Skill Certification Scheme is to enable a large number of Indian youth to take up industry-relevant skill training that will help them in securing a better livelihood. Individuals with prior learning experience will also be assessed and certified under Recognition of Prior Learning (RPL).
5. Over 5 lakh women directors are currently appointed in companies, which is the highest ever number in India. At the village level, women members of panchayats are leading the empowerment of their villages.

Empowering motherhood is being provided by

- a. **Mother and child tracking system:** It is a web enabled name based system to monitor and

ensure delivery of full spectrum of services to all pregnant women and children.

- b. **Maternity benefit act 2017** provides Maternity leave available to the working women to be increased from 12 weeks to 26 weeks for the first two children.

Safety in workplace is covered under the

1. Sexual harassment of women at workplace (prevention, prohibition and redressal) act, 2013 which provides a safe and secure environment to women at the workplace and covers all women, all ages, full time and part time, public and private sector, organised or unorganised sector, including domestic workers, students, apprentices.
2. **The Nirbhaya fund** is also being used to roll out comprehensive plans to make 8 major cities on the country safer for women and also improve our forensic analysis abilities in cases of sexual assault.

Accessing the inaccessible

1. **Mahila Shakti Kendra scheme:** Under this scheme 3 lakh student volunteers are fanning out across the country to directly reach women at village level with government schemes and services for their development.

Ensuring equality for the minority women

- A Muslim woman shares all her definition with women from every community. Even though her religion has given her the best but her 'samaaj' hasn't given her what best she deserves. Quran places them on par with men in the community but the status of the lower gender is widely watched and labelled.

Background:

- The birth of Islam addressed the degeneration of the society where women were treated worse than animals. But the society stopped reading the prophet's hadith (spoken word) and his Sunnah (practice) which gave rise to caste system, the dowry intake, honour killing in the name of caste, and poverty attached to the caste system, followed with multiple marriages, triple talaq and abandonment without maintenance. According to National Sample Survey Office (NSSO) 41% Muslims consider themselves as OBCs in 2004-05.

Steps taken to restore back the dignity of the minority women:

- The landmark report "voice of the voiceless" contextualized these matters on the status of Muslim women in India 2000 whose

recommendations were presented to government, religious bodies and civil society for policy formulation to come up with wider and deeper reach inside the community.

- The All India Muslim Personal Law Board (AIMPLB) introduced women members, although very few and quite compliant.
- one year after "my voice will be Heard" that showed not much improvement in 2003, the government decided to constitute a high level committee to study the status of SRC (sociology economic communities) primarily Muslims, which revealed that the dismal state of the Muslim community was since last 67 years.
- Since 2000 there has been a growth in the number of Muslim women organizations, calling for the reform of Muslim personal law (MPL), justifying their demands for gender equality.
- Women scholars took up the task of seriously and critically studying Quran from a female perspective.
- Establishment of Muslim women's forum was followed by Bharatiya Muslim Mahila andolan, 2006 and served as important advocacy group.
- AIMPLB began to articulate women's issues under the ambit of MPL.
- The trend further got force by a judgement favouring Muslim women.
- *2009. Divorce petition of Shabano and Imran Khan, Gwalior.*
- *Where SC ruled that section 125 CrPc would be entitled to claim maintenance after iddat (the period of waiting) so as long she doesn't marry.*
- The SC's landmark judgment on triple talaq seeks to obtain the rights provided to women in the Quran.
- *Where a five-judge bench of the Supreme Court in a split verdict ruled that the practice of instant triple talaq in the Muslim community is unconstitutional.*
- *Triple Talaq' or 'Oral talaq' is a procedure of divorce mentioned under the Sharia Law of the Islamic law under which a husband can divorce his wife by pronouncing 'Talaq' thrice.*
- Efforts of 20th century Muslim women was showcased in an exhibition with a colloquium titled "path breakers".

From the History

- In the nation building process along with Mahatma Gandhi, Jawaharlal Nehru, Maulana Azad and other leaders were these women :
- Sharifa Hamid Ali: represented India at UN commission on status of women and prepared a model nikahnama (a written document that two Muslim partners entering into a civil union must put their signature on in order to legalize their marriage).
- Mofida Ahmed: was a MLA in Assam
- Aziz Imam, Anis Kidwai, Qudisa Aizaz Rasool: were the MPs. Qudisa started the 1st professional theatre in post independent India.
- Surayya Tyabji: designed the Indian flag.
- All the current hype about Islam being anti-women is negated by the courage of these pathbreakers.

Way forward

- UCC has been in the public domain since last 70 years with an apprehension that a UCC or any new legislation within MPL will be enacted in India in near future.
- Recent law commission's report suggests making polygamy criminal offences not made on moral stance on monogamy burning a fact that it has been used as an exclusive privilege of men.
- the law commission has recommended a 'Muslim code of inheritance and succession' so that succession and inheritance is based on 'proximity to the deceased' rather than preference given to make.
- We need to take a concrete step towards remedying the consistent failure of the religious authorities without compromising on their right to inequality.

What is uniform Civil code (UCC)?

- The Uniform Civil Code (UCC) in India was proposed to replace the personal laws based on the scriptures and customs of different religious community in the country with a common set of laws governing every citizen. The constitution can do so under the provision provided in Article 44 as a Directive Principle of State Policy which states that "The State shall endeavour to secure for the citizens a uniform civil code throughout the territory of India."

Empowering tribal women

The data on ST

- Total Number of STs in india:705

- 75/705 are particularly vulnerable tribal groups(PVTGs)
- Population of tribal women=49.7% of the total tribal population
- Sex ration of tribal community =990 females for 1000 men
- Literacy rate among STs: female literacy rate at 49% compares poorly to 69% among the male counterparts.

Constitutional provisions to the Empowerment of women

- MoTA(Ministry of tribal affairs) was carved out of the Ministry of Social Justice and empowerment to enhance the socio economic status of the tribal population of India, while preserving their dignity and culture and bridging gaps in the human development indices(HDI) of tribal .
- National commission for scheduled tribes (NCST): Established by 89TH AA,2003 under article 338A to investigate and monitor all matters relating to the safeguards provided for the Scheduled Tribes under the Constitution.

Access to quality education is provided by

- **Eklavya model residential schools (EMRSs):** take their place among the Jawahar Navodaya Vidyalayas, the Kasturba Gandhi Balika Vidyalayas and the Kendriya Vidyalayas. The objective is to provide quality and high level education to Scheduled Tribe (ST) students in remote areas at par with the non ST population. More than 50% of students in these schools are girls and performed exceptionally in academics, sports and CCA.
- **Ashram Schools:** Focuses on ST schools
- Scheme of "National fellowship and scholarship of higher education of ST students.
- NGOs functioning under the scheme to run schools in district having low literacy
- 30% awards are earmarked for ST girls under the National overseas scholarships (NOS), for pursuing Post Graduation, PhD and post doc studies abroad.

Schemes for economic development

- The national scheduled tribes finance and Development Corporation is an apex organisation under MoTA for economic development of STs.

- **Adivasi Mahila Sashaktikaran Yojana(AMSY):** Under the scheme, Scheduled Tribes women can undertake any income generation activity and avail Loans upto 90% for scheme costing upto Rs. 1 lakh at a rate of interest of 4% per annum.

Some important Rights

- **The scheduled tribes and traditional forest dwellers (Recognition of forest rights)Act,2006** confers rights that ownership shall be registered jointly in the name of both the spouses.
- **The forest rights committee** provides that at least 2/3rd members shall be ST and not less than 1/3rd of such members shall be women.
- Tribal research institutes conduct training cum awareness programmes and workshops for the ST women Panchayati Raj institutes (PRIs) members on leadership, development, women empowerment.
- The ministry is committed to fill the gaps in implementation of various programs. More than 50% of the budget of the ministry is spent on sectors including education, health, nutrition, livelihoods, benefitting tribal population and tribal women in specific.

Communication: overarching role in women empowerment

The importance of communication and mass media:

- Communication has played a critical role in yielding beneficial results from the schemes for women's empowerment and in highlighting the issues of gender rights to a larger Audience base.
- It has helped women become protagonist to narrate their untold stories of denial, deprivation and injustice.
- It unleashes the process of social interaction through models of exchange by reaching out to people , influencing their actions, either by participation or through behavioural change through education ,both formal and informal ,skill development , financial inclusion ,health care etc.

Present picture

- Women as communicators, though less in number, are gradually coming forward and raising their voice. They tend to give a new approach, perspective and edge to the gender issues and are unravelling the stories of suffering and human rights violation with sensitivity.
- The national policy for women (NPW) ,2016 is a landmark document which pronounces the resolve of constructive engagement of women in national development with the help of multiple communication tools in advocacy campaigns.

Here is a list of communication channels highlights:

- **AIR and Doordarshan: acts** as a front runner in public communications.
- **Stree Shakti** :1 hour show on DD national .it highlights success stories of women achievers
- **DD news airs Tejaswini** : showcases stories of exemplary women.
- **“main kuch bhi kar Sakti hoon” (I ,A Woman ,can achieve anything)** : on Doordarshan is the most watched shows in the world, translated in 14 languages, transmitted over 240 radio channels and internet as well.
- **AIR:** is a pioneer in mounting multilingual programs on family welfare, entrepreneurship development and gender issues.
- **Community radio:** addresses issues on health, sanitation, education, food habits, family system etc.
- **ANC (Ante natal care)** registration has led to significant rise in enrolment of girls at the primary and secondary levels of education
- The community participation was ensured by ensured by birth of a girl child or school enrolment drives like “School chalein Hum” (Let us go to school).
- Today majority of women are in a position to fight for their rightful place in society. This newly earned confidence will go a long way in heralding a new era for women’s multifaceted development.