

OFFICERS'

Pulse

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Coverage.

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At a Glance & In Depth.

Polity and Social Issues
Economy
International Relations
Environment
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WEEKLY**

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



News @ a glance

Polity and Social issues	3	Paisa – Portal	15
'HAUSLA-2018'	3	GST on textile sector	15
Constitution day	3	Interim Budget	16
Muslim women seek entry to mosques	3	Liquidity for NBFC	16
Single women in India	4	Rupee appreciation	16
Flaws in demonetisation report	4	City Gas Distribution Network	17
Plea against Article 370	4	Fiscal deficit	17
Stigma with Leprosy	5	Import cover	17
Minimum wages for domestic workers	5	GDP Growth slows	18
Right to resign	6	Logix India	18
PM Matru Vandana Yojana	6	'Mission Raksha Gyan Shakti'	18
Anti-sikh riots	6	NPCC - a Miniratna	19
Emergency Response Support System (ERSS)	6	India to export fish meal & fish oil to China	19
Faulty hip implants	7	Protectionism affecting engineering exports	20
New federal bodies	7	PMAY-U	20
Death Sentences	7	International Relations	21
Women in combat role	8	Wuhan spirit	21
Integrated Disease Surveillance Programme (IDSP)	8	Kartarpur	22
CBRN emergencies	8	RCEP	22
Common Service Centres (CSC)	8	Global growth suffering	23
Heli-Clinics	9	Silk roads	24
PCA Amendments	9	Comprehensive Convention on International Terrorism (CCIT)	25
Global Wage Report	10	Science & Technology	26
Changes in Citizenship bill	10	Kumbh Mela alters bacterial load and diversity	26
Suicides in India	11	Premature births in India	27
Kimberley Process	11	Malaria in India	27
Mekedatu project	11	HIV & cognitive impairment	28
Economy	13	Embryo transfer technology	28
RBI Contingency Fund	13	Green Diwali	29
Autonomy of RBI	13	Marijuana	29
Open Market Operations	13	HysIS	29
Strategic disinvestment	13	Definition of kilogram	30
India-China DTAA	14	Fish hospitals in India	30
Stressed assets	14	Poli Oxime gel	30

Improving traffic efficiency	31	Captive elephants	37
Genetically edited babies	31	Transport sector pollution	38
Combating Zika	32	Paris climate deal	38
Defence and security	34	Culture	39
Central Monitoring System	34	Ram statue	39
KONKAN-18	34	Begur fort	39
Environment	35	Iravatham Mahadevan	39
Stratospheric aerosol injection (SAI)	35	South Asia Youth Peace Conference	40
Ganga rejuvenation	35	Indigenous film festival	40
Amur falcon	36	Miscellaneous	41
Islands of India	36	Self defense for women	41
Forest advisory committee (FAC)	37	Nariman Light House	41
Brazil loses forests	37	Ironman 70.3	41

News in-depth

General Studies-1	42	Ten years after the Mumbai attack	Ten years after the Mumbai attack	62
Minorities in India	42	Security scan:AVRO		63
Metoo movement	43	Wage drag: on ILO's Global Wage Report		63
The Sentinelese: not so lost in time	43	Trail of destruction		64
Aadi Mahotsav and tribal paintings	45	KURUKSHETR- RURAL HEALTH (November 2018)		65
General Studies-2	46	Introduction		65
Allied and Healthcare Professions Bill, 2018	47	Ayushman Bharat		65
Neighbourhood first?	48	Building clean and healthy villages		66
Civil-military relationship: Preventing another scuffle	49	Poshan Abhiyan: towards holistic nutrition		67
The case for a progressive international	50	About Accredited Social Health Activist (ASHA)		68
Dire strait:on Russia-Ukraine sea clash	52	National health Profile 2018		68
Along the new silk roads	53	National Health Resource Repository (NHRR)		68
Walking the tightrope	54	Tele-Medicine: A new healthcare opportunity		69
Together in an uncertain world	55	Mobile Connectivity for rural health		70
General Studies 3	57	Financing rural health care		70
In a spirit of accommodation	57	Health care for India's remote tribes		70
Breathing space	58	Adolescent health		71
Solving bad roads and plastic waste problems in one shot	60			

News @ a glance

Polity and Social issues

'HAUSLA-2018'

What is Child Care Institution?

- A child care institution as defined under the Juvenile Justice Act, 2015, means Children Home, Open Shelter, Observation Home, Special Home, Place of Safety, Specialised Adoption Agency and a Fit Facility recognized under the Act for providing care and protection to children, who are in need of such services.
- Children in conflict with law are provided residential care and protection in Observation Homes(not exceeding 4 months), Special Homes(not exceeding 3 years) and Places of Safety (during the process of inquiry).

Why in News?

- "Hausla 2018" - National Festival for Children of Child Care Institutions (CCIs) was organised by Ministry of Women and Child Development (MWCD) with the theme 'child safety'.
- More than 600 Children drawn from CCIs from 18 states participated in this event.
- The objective of the event is to instil confidence in them to achieve greater heights in life.

Constitution day

About:

- Indian constitution was adopted on November 26, 1949. After two years, 11 months and 17 days to accomplish the stupendous task of drafting the Indian Constitution, it was an important landmark in the country's journey as an independent, sovereign republic.
- The constitution came into force on January 26, 1950. November 26 earlier was commemorated as National Law Day, after a resolution by the Supreme Court Bar Association, a lawyers' body, in 1979.
- From 2015, the nation pays tribute to all the people involved in this herculean task by celebrating 26 Nov as Constitution Day of India.

Role of B.R. Ambedkar

- Initially B R Ambedkar was not a member of Constituent Assembly which was formed on December 9, 1946. It was Jogendra Nath Mandal's withdrawal who was from East Bengal, which paved the path for Ambedkar into Constituent Assembly.
- After 1947 partition, he lost his membership of constituent assembly. He was then elected from Bombay Presidency. Apart from this he became Law minister in Nehru's Cabinet.
- On August 30, 1947, the Drafting Committee formally met and unanimously elected Ambedkar as the Chairman of the Drafting Committee.
- He strongly believed in secularism and asked the upcoming governments to follow directive principles of constitution to remove the problems and inequalities of India.

Why in news?

- Constitution day celebrations was organised by the Supreme Court, to mark the anniversary of the adoption of our Constitution. President of India Shri Ram. Nath Kovind inaugurated the Constitution Day celebrations.
- The President said, that it is essential to build a fraternal and parallel relationship among three institutions i.e., legislature, executive and judiciary and all three must take responsibility in the duty of safeguarding and strengthening the Constitution.
- Chief Justice of India speaking on the occasion said that all people must adhere to the ethics and morality of the Constitution; otherwise, our moves will end into chaos.

Muslim women seek entry to mosques

Why in News?

- After Sabarimala entry row, Supreme Court has another petition to solve. Kerala-based Muslim women's right group, NISA, a progressive women's forum, is approaching the higher court, demanding the entry of women in all mosques across

the country. Their plea was rejected by Kerala HC recently.

- They not only seek the entry but demand to also designate women in the post of imams (clerics), curb the practices of polygamy and remove the practice of 'nikah-halala',
- **Nikah-halala** is a community law that allows a Muslim woman to remarry her former husband only after marrying another person and consummating the wedding with him.
- They demand the orthodox section to give reasons for the discrimination.

What is the present condition?

- Women are allowed to offer prayers at mosques under Jamaat-e-Islami and Mujahid denominations (but women have separate entrance doors and enclosures), while they are not allowed in Sunni faction mosques.
- Even in Mecca, the holy place of Islam, the men and women are allowed to encircle Kaaba together.
- There is no mention in Quran about not allowing women into mosques.

Single women in India

Why in news?

- The National Forum for Single Women's Rights (NFSWR) has also demanded that the Central government look at issues concerning single women not solely as problems afflicting elderly widows but also widows of all ages as well as unmarried, divorced, separated and abandoned women.

Guidelines:

- 3,000 for all single women whose incomes are below the taxation limit and who don't receive a pension from any other sources.
- The collective of women's rights groups has nearly 1.3 lakh women as members from across the country.
- More than 125 members from 13 States are in Delhi for two days for an advisory committee meeting.

Schemes related to this:

- The Women and Child Development Ministry has schemes such as **Mahila Shakti Kendra** for **empowerment of rural women**, Swadhar Greh or rehabilitation centers for women in vulnerable circumstances, Support to Training and Employment Programme and Working Women Hostel

- It has allocated nearly Rs 427 crore for these programmes in this year's budget. There is a separate sum of 3,703 crore under the Social Security and Welfare category, according to the budget document.

Flaws in demonetisation report

Why in news?

- Agriculture ministry report which said that millions of farmers were unable to get enough cash to buy seeds and fertilizers for their winter crops.

Flaws in the earlier report:

- Even bigger landlords were affected as they could not pay daily wages and buy inputs.

About the fresh report:

- The Ministry claimed that a multi-pronged strategy was adopted to ensure availability of credit, seeds, fertilizers and marketing avenues for the farmers.
- To support its claim, the Ministry submitted a series of statistics saying that Rabi area sown in 2015-16 was 612.28 lakh hectares which increased to 635.29 lakh hectares.
- The financial year 2016-17 only had four months post-demonetization.
- In financial year 2017-18 there was a dip in area of lakh hectare sown from 635.29 lakh hectares to 628 lakh hectares.
- The report also said that food grain production in Rabi 2016-17 increased from **1264.50 lakh tons** in 2015-16 to 1367.78 lakh tons and then to **1441.02 lakh tons** in 2017-18.

Plea against Article 370

What is Article 370?

- Article 370 of the Indian Constitution is a 'temporary provision' which grants special autonomous status to Jammu & Kashmir. According to this article, except for foreign affairs, defence, finance and communications, Parliament needs the state government's concurrence for applying all other laws.
- Under Article 370, the Centre has no power to declare financial emergency under Article 360 in the state.
- Indian Parliament cannot increase or reduce the borders of the J&K state.

- There is no State list for the State of Jammu and Kashmir. Even the residuary powers of legislation lies with state government.
- The power to make laws related to preventive detention in Jammu and Kashmir belongs to the Legislature of J & K and not the Indian Parliament. Even the Part IV (Directive Principles of the State Policy) and Part IVA (Fundamental Duties) of the Constitution under this article are not applicable to J&K.

What is Article 35A?

- Article 35A of the Indian Constitution is an article that empowers the Jammu and Kashmir state's legislature to define "permanent residents" of the state and provide special rights and privileges to those permanent residents.

Why in News?

- The Supreme Court on Monday recently rejected a petition challenging Article 370.

Arguments:

- Article 370 was only a 'temporary provision' which can help to bring normalcy. The Constitution makers didn't intend to make Article 370 as a tool which bring permanent amendments, like Article 35A, in the Constitution.
- Article 35A is against the "very spirit of oneness of India" which violates fundamental rights by restricting citizens from other States from getting employment or buying property in J&K.

Stigma with Leprosy

What is Leprosy?

- It is also known as Hansen's disease. It is a bacterial disease, no hereditary which affects the skin and nerves which can lead to physical deformity and disability if left untreated.
- It is completely curable, and is only mildly infectious – more than 85% of cases are non-infectious and over 95% of the population has a natural immunity to the disease.

What is the problem?

- Due to stigma and lack of knowledge leprosy patients were abandoned by family and discarded from society. Indian government had Leprosy colonies where patients diagnosed with leprosy were kept and treated.
- In 2005, WHO declared that leprosy is not a public-health concern in India.

- This routed out Govt to take away concern, attention and funds from leprosy patients. Even international funding dried up.

Why in news?

- Today after the declaration the number of new cases has remained stagnant. India still has more than 60% of the world's leprosy patients

Remedies available

- The multi-drug therapy is free in all government hospitals, but there are not sufficient funds for ulcer care and bandaging, and for public awareness and society sensitisation.
- Some patients are entitled to pension but since the arrival of Aadhaar, bank officials demand fingerprint verification to withdraw the pension amount. The patients who have deformed hands, to which fingerprints can't be given. The officials reject their pension amount.

Leprosy colonies

- The leprosy colonies have become an aspect of people's identification. Though the actual patients have become less but their relatives are treated with stigma and prejudice at workplace and other places

Minimum wages for domestic workers

Domestic sector in India

- A domestic worker is a person who is involved in work like cleaning, washing, cooking, taking care of children, etc. They play an important role in the well-being of the family.
- According to International Labour Organisation (ILO), there are at least 4.2 million domestic workers in India. Out of this population, women constitute about two-thirds of the workforce in this unorganised sector. Indian homes have witnessed a 120% increase in domestic workers in the decade post liberalisation.
- There is absence of proper documentation, which also increases their reliance on employers to access social security benefits. Due to these, domestic workers prone to violence and abuse at the hands of their employers and placement agencies.

Why in News?

- A PIL submitted to the Supreme Court asked to lay down guidelines to protect the workers' rights. It asks dignity to "India's

invisible workforce in the informal sector- the domestic workers.”

- It sought the recognition of domestic work under the Minimum Wages Act, 1948. Their work hours should be reduced to eight a day and they should be given a mandatory weekly off as a basic right under Article 21.

Way-forward

- India by far has only two laws for domestic workers: The **Unorganised Workers’ Social Security Act 2008 (UWSSA)** and the **Sexual Harassment of Women at Workplace Act 2013**.
- But seeing the increasing number of issues and challenges of domestic workers, these two laws are meagre. India should ratify the ILO’s 189th convention known as the ‘convention of domestic workers’.

Right to resign

Why in news?

- The Supreme Court held that to resign is a right of an employee and he cannot be forced to serve.

SC observation

- An employee cannot be compelled to serve and has his right to resignation except under the following two conditions
- If there is some condition as part of agreement in the rules or in terms of appointment
- When an employee seeks resignation to avoid disciplinary proceedings pending against him

PM Matru Vandana Yojana

What are the problems with PMMVY?

- Pradhan Mantri Matru Vandana Yojana provides Rs.5000 for first child only. Next pregnancy is not covered.
- It violates National Food Security Act (NFSA) 2013, which says every pregnancy is entitled of maternity benefits costing Rs.6000, unless she is covered under other maternity benefits.
- The application process is very cumbersome which asks to file separate application for each of the instalments with Aadhar of both the couples & bank account details which is Aadhar connected.
- It is seen that only 45% of pregnancies are first pregnancies. The most hit are BPL families in which women go for work as farm workers or household chores. They

Officers IAS Academy, Chennai due to lack of benefits tend to borrow from others to fulfil their nutritional requirements.

Anti-sikh riots

1984 anti-Sikh riots:

- In 1984, after the assassination of Indira Gandhi, riots broke in Delhi and other parts of the country targeting the Sikh community.
- Official Indian government reports numbered about 2,800 killed across India, including 2,100 in Delhi.
- Sessions court in 1996 convicted 89 persons and sent them for 5 years.

What’s in News?

- Recently Delhi High Court upheld conviction of 70 accused and ordered them to surrender.
- Delhi high court suggested several reforms as it believed that general criminal law is not equipped to deal with communal riots.
- It said that evidences must be preserved by Human Rights Commissions in cases of communal riots situations.
- They said that cases like this should be given to agencies other than normal state agencies.
- The media reports with photographic material or video footages in trials of criminals arising out of communal riots.
- There should be amendments to the Commissions of Inquiry Act, 1952 and the Protection of Human Rights Act, 1993 to entrust the responsibility of investigation in communal riots through SITs specially constituted under their respective control.

Emergency Response Support System (ERSS)

Why in news?

- Himachal Pradesh is the first state to launch pan-India single emergency number ‘112’ under ERSS. It has also has setup 112 India’ mobile app.
- It is a Pan-India Single Emergency Response Number ‘112’ to address all kinds of distress calls such as police, fire and ambulance etc.
- It has a SHOUT feature for women, which has been introduced in ‘112 India’ mobile app to seek immediate assistance from registered volunteers in the vicinity apart

from the immediate assistance from Emergency Response Centre.

- MHA provides financial assistance to all States & Union Territories in the form of computer hardware, C-DAC Contact Centre Solution stack which includes CAD (Computer Aided Dispatch), CRM (Case Record Management), ACD (Automatic Call Distribution), CTI (Computer Telephony Integration) along with limited number of Emergency Response (ER) Vehicles fitted with GPS/MDTs for effective last mile emergency service delivery in selected cities.

Faulty hip implants

Why in news?

- The Ministry of Health has approved the formula for determination of compensation for patients who had received faulty articular surface replacement hip implants.

Background

- Johnson & Johnson globally recalled hip implants in 2010, including from India, after a British study found the models to have higher failure rates
- In 2012, the company of asked to stop imports of the faulty hip implants.
- A Health Ministry expert committee set up in 2017 to look into this issue said the design of the implants led to high wear and tear and, in several cases, increase in the body's chromium and cobalt levels.
- In 2018, the government set up a mechanism to compensate Indian patients affected by the implants.

Relief package

- The compensation payable is determined by the extent of disability and the age of patient.
- Rs 20 lakh is the base amount, which is then multiplied by the age and disability factors. Rs 10 lakh is added to the product to reach the final sum. Disability factors are between 1 and 2.5 depending on whether the disability is 20% or 50% and more.
- It works to a minimum of Rs. 30 lakh for those above 65 years with a 20% disability and maximum compensation of Rs. 1.22 crore for those aged between 20 and 35 years and with disability over 60%.

New federal bodies

What's in news?

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- Finance Minister Arun Jaitley at Confederation of Indian Industry's Health Summit said India must have federal bodies in Agriculture and Healthcare sectors.
- Both being state list subjects, Centre has only sponsored schemes in these sectors.
- The minister has said that the concept of GST Council has been a successful experiment of practical federalism and sectors can be brought into coordinated works wherein State can be implementing body and centre can do coordination.
- For example, Ayushman Bharat scheme is being implemented by centre and there is similar kind of schemes implemented by states. These can be merged and can give quality service to the citizens.

Death Sentences

Why in news?

- A triple murder convict, Anand Ram Sahu, approached to Supreme Court against Sessions court's death sentence, the three judge bench upheld the death sentence by 2:1 majority. Justice Kurian differed from the majority said that death sentences are being laid without any analysis.
- He said that death sentences must be used only in the "rarest of rare category" of cases as it was upheld by constitution bench in the **Bachan Singh case** in 1980.
- The Law Commission Report 2015 said that the constitutional regulation of capital punishment attempted in the above case has failed to prevent death sentences from being "arbitrarily and freakishly imposed".
- He said that a proper psychological/psychiatric evaluation should be conducted before a convict is found to be beyond reform and then sentenced to death.
- He also emphasised that good conduct in prison should be considered to commute the death sentence.

Statistics

- The number of death sentences by session's courts in 2017 was 109 across all states.
- While giving death sentences there are concerns over judge-centric variations.
- The following are some offences under the IPC are given punishment: criminal conspiracy (s. 120B), murder (s. 302), waging or attempting to wage war against the Government of India (s. 121), abetment

of mutiny (s.132), dacoity with murder (s. 396) and others.

- Apart from this there are provisions for death penalty in various legislations like the NDPS Act, anti – terrorism laws etc.

Women in combat role

What is the status of women in Army?

- In 2016, the number of women officers in the Indian army is 1,561, followed by 1,594 in the Indian Air Force, and 644 in the Indian Navy.
- There is no combat role given to women in Indian army till now.

Why in news?

- Army chief Gen. Bipin Rawat has said that Indian Army is still not ready to job women in combat roles. Facilities for that need to be created from within and the women need to be prepared to face up to that kind of hardships.
- He said that it is easy to compare our military to other countries which are culturally open, but Indian army recruitment doesn't always come from open cities. Large number of personnel are from village where intermingling of gender is not first handily accepted.
- He said that army is thinking of roles to be given to women and majorly as interpreters which helps in military diplomacy.

Integrated Disease Surveillance Programme (IDSP)

What is Integrated Health Information Platform (IHIP)?

- It is setup by Ministry of Health and Family Welfare with a primary objective to create Electronic Health Records (EHRs) on pan-India basis. This will be further integrated and synthesised to comprehensive Health Information Exchange (HIE).
- IHIP uses the latest technologies and digital health initiatives. This type of system facilitates improvement in the reforms of treatment and care of public health at National-Level.
- The **National Centre for Disease Control (NCDC)** under the Union health ministry utilises these data and after investigating, recommends control measures for the outbreak of various communicable

Officers IAS Academy, Chennai diseases in the states and Union Territories as well as some neighbouring countries.

What is IDSP?

- It is a segment of IHIP, which will provide near-real-time data to policy makers for detecting outbreaks, reducing the morbidity (the rate of disease in a population), and mortality (death due to disease) and lessening disease burden in the populations and better health systems.
- It is initially launched in seven states i.e. Andhra Pradesh, Himachal Pradesh, Karnataka, Kerala, Odisha, Telangana and Uttar Pradesh.
- For its effective implementation, 32,000 people at the block level, 13,000 at the district level and 900 at the state level have been trained.

CBRN emergencies

What is CBRN emergency?

- Chemical, Biological, Radiological, Nuclear (CBRN) agents might be released due to some accident or subversive activity by some miscreant, this is termed as CBRN emergency.
- The best way to tackle them is prevent these incidents to occur.
- Airports are the most vulnerable to these emergencies in modern India. Hence there are mock drills and workshops at airports to tackle these.

What is NDMA?

- A statutory body under Disaster Management Act, 2005 directed headed by prime minister. It comes under Ministry of Home Affairs.
- Its vision is to build a safer and disaster resilient India by a holistic, proactive, technology driven and sustainable development strategy that involves all stakeholders and fosters a **culture of prevention, preparedness and mitigation.**

Why in News?

- The five-day training programme (from 26th Nov) regarding CBRN emergencies was conducted by the National Disaster Management Authority (NDMA) at the Trivandrum International Airport

Common Service Centres (CSC)

- CSC Scheme, a cornerstone Digital India programme, which through CSCs provide

private players to take part in supplementing the government efforts.

multiple-services-single-point model for providing facilities for multiple transactions at a single geographical location.

- It is maintained by **CSC e-Governance Services India Limited**, a Special Purpose Vehicle (a company established to finish temporary task), has been set up by the Ministry of Electronics & IT under the Companies Act, 1956 to oversee implementation of the CSC scheme.
- **Village Level Entrepreneurs (VLEs)** are the key stakeholders who set up CSCs at gram Sabha levels to deliver the services. There are around 1.63 lakh VLEs in the country.
- CSCs provide different essential government and public utility services, range of social welfare schemes, financial services, education and skill development courses, healthcare, agriculture services and digital literacy.
- CSC SPV has signed agreement with 26 Banks (Public Sector Banks, Regional Rural and Private Sector Banks) to enable CSCs to become Banking Correspondent Agents (entities as agents of banks to provide basic banking services in remote areas where they can't practically start a branch).
- CSC SPV has been granted license by Insurance Regulatory and Development Authority (IRDA) to market specific insurance products and services through Rural Authorised Persons (VLEs).

Why in News?

- On 27th November, Union Minister of Electronics & IT and Law & Justice, Sh. Ravi Shankar Prasad honoured VLEs who have topped in transacting.

Heli-Clinics

What's in news?

- Union Minister Dr Jitendra Singh, speaking at "India Health Summit 2018", organized by Confederation of Indian Industry (CII) proposed businessmen to put up helicopter clinics in the nation, especially in hilly regions.
- He said that the urban areas are full of private doctors and professionals have lot of scope in rural areas to provide healthcare services.
- He said Heli-clinics will help in quicker and qualitative healthcare response. He called

PCA Amendments

Prevention of Corruption (Amendment) Bill 2018

- The Parliament has passed Prevention of Corruption (Amendment) Bill 2018 to enhance transparency and accountability of the government.
- The Bill amends various provisions of Prevention of Corruption Act (PCA), 1988.

Key amendments

- The Bill introduces offence of 'giving a bribe' as direct offence.
- The bill redefines provisions related to criminal misconduct to only cover two types of offences such as accumulate illegal assets and fraudulent misappropriation of property.
- It makes mandatory for taking prior approval of relevant Government to conduct any investigation into offence alleged to have been committed by a public servant.
- Such approval will be not necessary in cases that involve arrest of person on spot on charge of taking a bribe.
- It also introduces powers and procedures for attachment of property of public servants accused of corruption.

Public Interest Litigation

- Public Interest Litigation means litigation for the protection of the public interest.
- It is litigation introduced in a court of law, not by the aggrieved party but by the court itself or by any other private party.
- **Hussainara Khatoun v. State of Bihar** was the first PIL case filed by advocate Kapila Hingorani and focused on the inhuman conditions of the prisons. The case led to release of more than 40, 000 under trial prisoners.

Why in news?

- A new Public Interest Litigation (PIL) has been filed in Supreme Court opposing two amendments of the Prevention of Corruption Act (PCA).
- The amendments which are opposed are:-
 1. The bill redefines provisions related to criminal misconduct to only cover two types of offences such as accumulate illegal assets and fraudulent misappropriation of property. The earlier act had the public

servant using his position for advantage of third party.

2. It makes mandatory for taking prior approval of relevant Government to conduct any investigation into offence alleged to have been committed by a public servant. As it may lead to further lobbying to destroy the evidences against the public servants.
- The Supreme Court has asked the Union government to file the response regarding this issue in the court.

Global Wage Report

What is ILO?

- The ILO is United Nations agency dealing with labour issues, particularly international labour standards, social protection, and work opportunities for all.
- It was established in 1919 as an agency of the League of Nations and at present, it has 187 members.
- It is headquartered in Geneva, Switzerland.
- India is a founder member of the ILO.

Findings of 2018 report

- Global Wage Report 2018-19 published by International Labour Organization (ILO).
- Real wages show the value of wages adjusted for inflation. They are a guide to how living standards have changed.
- Real wage growth was calculated using gross monthly wages rather than hourly wage rates.
- Global real wage growth declined to 1.8% in 2017, from 2.4% in 2016.
- In G20 countries, the real wage growth declined from 1.7 in 2015 to 0.4 in 2017.
- India had the fastest wage growth in South Asia in 2017.
- Globally, the rate of growth in wages in 2017 fell to its lowest level since 2008, but workers in India had the highest average real wage growth in Southern Asia of 5.5% over the period 2008-17.
- This year the report was mainly based on wage gap among men and women.
- On average, women are paid 34% less than men in India, while globally it is about 20%.
- This gap in wages, known as gender wage gap is the highest among 73 countries studied in the report.

Changes in Citizenship bill

The Citizenship (Amendment) Bill 2016

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- The Citizenship Act, 1955 regulates who may acquire Indian citizenship and on what grounds.
- It prohibits illegal migrants from acquiring Indian citizenship.
- The 1955 Act defines an illegal migrant as a foreigner who enters India without a valid passport or travel documents or stays beyond the permitted time.
- The bill amends the Citizenship Act, 1955 to make illegal migrants who are Hindus, Sikhs, Buddhists, Jains, Parsis and Christians from Afghanistan, Bangladesh and Pakistan, eligible for citizenship.
- The period that applicant must reside to get citizenship is reduced from 11 years to 6 years.
- The Bill provides that the registration of Overseas Citizen of India (OCI) cardholders may be cancelled if they violate any law.

Overseas Citizenship of India (OCI)

- Overseas Citizenship of India (OCI) is introduced by the Citizenship (Amendment) Act, 2005 in August 2005.
- It was launched during the Pravasi Bharatiya Divas convention at Hyderabad in 2006.
- OCI is essentially a lifetime visa status offered by India to an Indian person who has given up his citizenship. OCI cards give lifetime multiple entry visa to India.
- If one remains an OCI for 5 years, he/she can attain Indian citizenship and then live in India for a period of one year including short breaks.
- OCI holders can open bank accounts and also buy non-farm property.
- They get same economic, financial and educational benefits like NRIs and can also adopt children.

What is the issue?

- The Bill makes illegal migrants eligible for citizenship on the basis of religion. This may violate Article 14 of the Constitution which guarantees right to equality.
- The Bill allows cancellation of OCI registration for violation of any law. This is a wide ground that may cover a range of violations, including minor offences (eg. parking in a no parking zone).

Recent Developments

- The bill has been forwarded to joint parliamentary committee, in which the following amendments had been proposed:-

1. No specific religion or country must be present in the bill. The provision such as any person who leaves his country due to religious, linguistic and ethnic discrimination should be eligible for Indian citizenship.
2. The legal actions against the illegal foreigners (only to above mentioned minorities) must be dropped.

Suicides in India

About:

- Suicide is killing yourself on purpose, dying at your own hand. Suicide is a personal tragedy that prematurely takes the life of an individual and has a continuing ripple effect, dramatically affecting the lives of families, friends and communities.
- According to National Crime Record Bureau, 133,623 suicides occurred in 2015 alone.
- Majority of suicides were reported in Maharashtra (16,970) followed by 15,777 suicides in Tamil Nadu and 14,602 suicides in West Bengal.
- 'Family Problems' and 'Illness' were the major causes of suicides which accounted for 27.6% and 15.8% of total suicides respectively.

Why in News?

- Vice-President Venkaiah Naidu while addressing 9th Annual Conference of Indian Association of Private Psychiatry (IAPP) in Hyderabad asked to develop National Suicide Prevention Strategy to curb the growing suicide rates in India.
- He said that our 65% of population is below the age of 35 years, mental depression and psychiatric problems should be dealt properly to abstain the country from suicide loss.

Kimberley Process

What is KP?

- The Kimberley Process is an international certification scheme that regulates trade in rough diamonds. It aims to prevent the flow of conflict diamonds, while helping to protect legitimate trade in rough diamonds.
- The Kimberley Process (KP) is a binding agreement between countries to remove **conflict diamonds (rough diamonds to**

Officers IAS Academy, Chennai **finance wars against governments)** from the global supply chain.

- KP contains 81 countries (European Union as one nation) of the world. The Civil Society Coalition stands as observer.
- The visible evidence of this commitment is **The Kimberley Process Certification Scheme (KPCS)** that both safeguard the shipment of 'rough diamonds' and certifies them as conflict free.
- KP members are responsible for stemming 99.8% of the global production of conflict diamonds.

India and KPCS

- India is one of the founding members of the Kimberley Process Certification Scheme and has been actively participating in its deliberations right from its inception.
- The Scheme is administered in India by the Department of Commerce, Ministry of Commerce & Industry, Government of India.

Why in News?

- India was handed the Chairmanship of the Kimberley Process Certification Scheme (KPCS) by the European Union during the KPCS Plenary 2018, which was held in Brussels, Belgium, from November 12-16, 2018. India will take over the role from January 1, 2019.

Mekedatu project

About:

- Being set up by the Karnataka government, the project is near Mekedatu, in Ramanagaram district, across the river Cauvery from Tamil Nadu.
- Its primary objective is to supply drinking water to Bengaluru and recharge the groundwater table in the region.



Central Water Commission:

- It apex technical organisation in the field of water resources development under the Ministry of Water Resources, River Development and Ganga Rejuvenation.
- It has general responsibilities of initiating, coordinating and furthering in consultation

of the State Governments concerned, schemes for control, conservation and utilization of water resources throughout the country, for purpose of Flood Control, Irrigation, Navigation, Drinking Water Supply and Water Power Development.

- Central Water Commission CWC is headed by a Chairman, with the status of Ex-Officio Secretary to the Government of India.

Why in News?

- CWC approved Makedatu Project and asked Karnataka to prepare detailed project report (DPR).

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- Tamil Nadu has moved the Supreme Court. Its main argument is that the project violates the final award of the Cauvery River Water Tribunal, and that the construction of the two reservoirs would result in impounding of the flows in the intermediate catchment below the Krishnaraja Sagar and Kabini reservoirs, and Billigundulu in the common border of Karnataka and Tamil Nadu.
- Karnataka is sure that the project will not come in the way of releasing the stipulated quantum of water to Tamil Nadu, nor will it be used for irrigation purposes.

Economy

RBI Contingency Fund

About RBI Contingency Fund:

- Contingency Fund is meant for unforeseen circumstances it is basically a buffer against valuation losses on bond holdings or foreign exchange assets in the event of a rise in interest rates or appreciation of the rupee.
- The Fund would also be helpful in a “black swan” event such as the collapse of Lehman Brothers or of local banks that may threaten financial stability.
- RBI maintains this fund as a part of the reserves that the bank maintains out of its business and profit.

Why in news?

- A recent report said that RBI has “more than adequate” reserves and it can transfer up to 1 trillion of the contingency fund to the government.

Autonomy of RBI

Why in news?

- RBI governor batted for autonomy of the institutions in strong terms before the Parliamentary panel.

What RBI Governor said?

- Over the recent power strife between RBI and Central bank. A parliamentary committee under M.Veerappa Moily called upon RBI governor.
- Before the Parliamentary committee the RBI governor stressed on the following things:
 1. Autonomy of the institution is non-negotiable.
 2. Monetary policy should be exclusive domain of RBI.
 3. Maintaining RBI reserve is critical to keep the good rating.
 4. Obligation to follow Basel III as promised by the government in G20.
- The RBI governor also remarked that the **gross NPA and net NPA has gone down**, however the profitability of the banks has not gone up, which is likely to improve sooner.
- Gross non-performing assets refer to the sum of all the loans that have been defaulted by the borrowers within the provided period of ninety days while net non-performing assets are the amount that

results after deducting provision for unpaid debts from gross NPA.

- RBI remarked that **Indian economy is currently facing several risk**: increasing oil prices, uncertainty over MSP hike, lower than expected GST collection, global situation like trade war, geopolitical tension.
- These risks may pose a threat to the government attaining the FRBM targets. Under the Fiscal Responsibility and Budget Management Act (FRBMA) 2003, both the Centre and States were supposed to wipe out revenue deficit and cut fiscal deficit to 3% of GDP by 2008-09, thus bringing much needed fiscal discipline.
- On the effect of demonetisation on the economy: RBI remarked that the effects are sector specific and transient. It also noted that the number of digital transaction has got a big boost due to demonetisation. The number of digital transactions has gone up from 900 million in 2016 to 1750 million in 2018.

Open Market Operations

What is Open Market Operation (OMO)?

- Open market operations (OMO) refer to the buying and selling of government securities in the open market in order to expand or contract the amount of money in the banking system.
- Securities purchase injects money into the banking system and stimulate growth, while sales of securities do the opposite and contract the economy.
- OMO is used as a tool to control the money flow and inflation by the central bank.

Why in news?

- RBI based on the liquidity needs has said that it will inject 40,000 crore by purchasing government securities through open market operations.

Strategic disinvestment

What is strategic disinvestment?

- Disinvestment is defined as the action of an organisation (or government) selling or liquidating an asset or subsidiary.

- In Strategic disinvestment, significant proportion of a Public Sector Unit's (PSU) share and the management control goes to a private sector which is considered as strategic partner.
- It is different from the ordinary disinvestment in which management of PSU is retained with Government.

Department of Investment and public Asset Management (DIPAM):

- DIPAM is the nodal agency of Union Finance Ministry mandated to advise the Union Government in the matters of financial restructuring of PSUs and also for attracting investment through capital markets.
- It will also deal with all matters relating to sale of Union Government's equity in PSUs through private placement or offer for sale.

Revised mechanism for strategic disinvestment:

- Setting up an Alternative Mechanism (AM): It will decide on the matters relating to terms and conditions of the sale from the stage of inviting of Express of Interests (Eols) till inviting of financial bid.
- It will consist of the Finance Minister, Minister of Road Transport and Minister of Administrative Department.
- Empowering the Core Group of Secretaries (CGD): It will enable CGD to take policy decisions with regard to procedural issues and consider deviations as necessary from time to time for effective implementation of decisions of CCEA.

Why in news?

- A ministerial panel cleared a proposal for strategic disinvestment of Air India(AI) subsidiary company called AIATSL(Air India Air Transport Services Limited).

India-China DTAA

About the amendment:

- Besides other changes, the Protocol updates the existing provisions for exchange of information to the latest international standards.
- Further, the Protocol incorporates changes required to implement treaty related minimum standards under the Action reports of Base Erosion & Profit shifting (BEPS) Project, in which India had participated on an equal footing.

- Besides minimum standards, the Protocol brings in changes as per BEPS Action reports as agreed upon by the two sides.

What is DTAA?

- It stands for Double Taxation Avoidance Agreement. A DTAA is a tax treaty signed between two or more countries.
- Its key objective is that tax-payers in these countries can avoid being taxed twice for the same income.
- A DTAA applies in cases where a tax-payer resides in one country and earns income in another.

What is BEPS?

- Base erosion and profit shifting or BEPS refers to corporate tax planning strategies used by multinationals to "shift" profits from higher-tax jurisdictions to lower-tax jurisdictions, thus "eroding" the "tax-base" of the higher-tax jurisdictions.

Why in news?

- India and China recently amended the Double Taxation Avoidance Agreement (DTAA) for the avoidance of double taxation and for the prevention of fiscal evasion with respect to taxes on income, by signing a Protocol on 26th November 2018.

Stressed assets

What is a stressed asset?

- Stressed assets are the ones where the interest and principal are not paid for more than 30 days.
- It is classified as NPA-Non Performing Asset if the duration exceeds 90 days.

What is Insolvency and Bankruptcy code (IBC)?

- The creditors (financial/operational) are required to submit a plea for insolvency to the adjudicating authority (National Company Law Tribunal in case of corporate).
- The plea has to be accepted/rejected within 14 days from the filing of the plea. In case of acceptance of the plea, an Insolvency Resolution Professional (IRP) is appointed.
- The IRP has to draft an insolvency resolution plan within 180 days (can be extended by 90 days in exceptional cases) while the board of directors of the company remains suspended and the promoters do not have a say in the management.
- However, the IRP is allowed to seek help from the board of directors in carrying on the day to day activities of the business.

- If the resolution plan is accepted by 75% of the creditors, it will be put into action. In case of rejection of the insolvency resolution plan, the company will be liquidated.

Why in news?

- Due to the implementation of Insolvency and Bankruptcy code (IBC) almost 3 lakh crore stressed assets has said to have been resolved.

Paisa – Portal

What is Paisa?

- “PAiSA – Portal for Affordable Credit and Interest Subvention Access” is a centralized electronic platform for processing interest subvention on bank loans to beneficiaries under Deendayal Antyodaya Yojana – National Urban Livelihoods Mission (DAY-NULM)
- The web platform has been designed and developed by Allahabad Bank which is the Nodal bank.
- The portal would directly connect the government and the beneficiaries so that transparency and efficiency in delivery of services can be ensured.
- The Direct Benefit Transfer (DBT) of subvention on monthly basis will give necessary financial support to small entrepreneurs in a timely manner.

National Urban Livelihoods Mission (Day-NULM)

- NULM was introduced in 2013 and is implemented by the Ministry of Housing and Urban Affairs
- It aims to reduce poverty and vulnerability of the urban poor households by enabling them to access gainful self-employment and skilled wage employment opportunities
- The mission would aim at providing shelters equipped with essential services to the urban homeless
- The mission would also address livelihood concerns of the urban street vendors by facilitating access to suitable spaces, institutional credit, social security and skills to the urban street vendors for accessing emerging market opportunities.
- It also helps in setting up of individual and group micro-enterprises, formation of Self-Help Groups, innovative support to rag pickers, differently abled etc.

Why in news?

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- “Paisa – Portal for Affordable Credit & Interest Subvention Access” has been launched under the Deendayal Antyodaya Yojana – National Urban Livelihoods Mission (Day-NULM)

GST on textile sector

- After a year since implementation of GST, the taxing regime is on track to achieve 'one nation one tax'. It reduced the administrative costs for manufacturers and distributors and reduced the compliance burden. It has also brought in developments and changed the way business is conducted.

Textile sector

- The textile sector is one of the oldest and largest in the country and a major contributor to the development of the economy.
- The industry employs around 45 million people including both skilled and unskilled manpower
- It contributes over 10% of the total annual exports of the country, which is likely to increase under the GST regime.

Effects of GST on textile sector

- The overall tax burden has come down from 20% to 18% and has also brought in transparency
- Earlier, if registered taxpayer procures the input from taxpayers under the composition scheme or the unorganised sector, input tax credit will not be provided for him. But under GST, the organised sector is able to avail input tax credit.
- The cost of manufacturers has reduced in textile sector with the subsuming of different taxes like entry tax, luxury tax and octroy.
- The import cost of the latest technology to manufacture textile goods is expensive because the excise duty paid for the same was not allowed in input tax credit. However, under GST, input tax credit can be availed for all tax paid on capital goods.
- The competitiveness of textile sector in exports has increased as a result of simplifying the process of claiming input tax credit.

Concerns

- The GST for yarn is 5% whereas for machinery to manufacture yarn is 18%. This has resulted in yarn manufacturers

being left with huge input tax credit which they cannot utilise.

- There is no provision under GST to get such accumulated credit as refund for capital goods which leads to dead investments. (Investments which don't yield returns for the investor)
- A foreign manufacturing company is now permitted to set up a unit without any investment from the domestic market which creates unfavourable environment for domestic companies to compete.

Way forward:

- The government should safeguard the domestic industries by creating a level playing field through the Make in India scheme
- Incentives should be given to the textile sector to become competitive in the export market
- There is a need for simplified process in e-way bill legislation to ease transportation of goods by minimizing documentation, physical verification etc.

Interim Budget

What is an interim budget?

- The interim budget includes a report card on the income and expenses made last year and the proposed expenses likely to be made in the next few months until the new government takes over.
- There is no proposal on the income part of the budget through collection of taxes.
- An interim budget is presented by outgoing govt.

Different types:

- An **annual budget** has two parts-(1)part one is the summary of income and expenses made by the government in the previous year.(2) Announcement of proposed ways to raise money from taxes and spending them on welfare measures across the country in the various segments.
- An **Interim budget**- The interim budget includes a report card on the income and expenses made last year and the proposed expenses likely to be made in the next few months until the new government takes over. There is no proposal on the income part of the budget through collection of taxes. An interim budget is presented by outgoing govt.
- '**Vote on Account**' by which the government obtains the vote of Parliament

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for a sum sufficient to incur expenditure on various items for a part of the year. This enables the government to fund its expenses for a short period of time or until a full Budget is passed.

Why in news?

- Finance Minister Arun Jaitley will present the interim Budget for the financial year 2019-20 on February 1, 2019.
- It would be the last budget of the NDA government before the Lok Sabha election on May 2019.

Liquidity for NBFC

About the RBI moves on NBFC:

- NBFC's are facing liquidity crisis post the IL&FS default of loans, which resulted in Government dismantling of the existing board of IL&FS and installed a new one.
- A holding period is the amount of time the investment is held by an investor or the period between the purchase and sale of a security. In a long position, the holding period refers to the time between an asset's purchase and its sale.
- The minimum holding period of NBFC was 1 year earlier by which NBFC after an year can use the security as a collateral for it to obtain loans.
- Recently the government has reduced it to 6 months which will increase the liquidity option for the NBFC.

Why in news?

- In a move to make more liquidity available to non-banking finance firms, the Reserve Bank of India has relaxed the securitisation norms by relaxing the minimum holding period requirement.
- The move follows a demand from the government for a special window for NBFCs, to provide them liquidity support.

Rupee appreciation

What is Rupee appreciation?

- The appreciation of a country's currency refers to an increase in the value of that country's currency with respect to a foreign currency.
- If the Indian rupee appreciates relative to the dollar, the exchange rate falls: it takes fewer Indian rupees to purchase 1 dollar.

Effects of appreciation:

- When the Indian rupee appreciates relative to the dollar, the Indian exports become costlier and imports becomes cheaper.
- The appreciation of rupee has helped India to contain the rising current account deficit and inflation. *(CAD-when the value of imports of goods incomes is greater than the value of exports).*

Why in news?

- Rupee has hit 3 month high relative to the dollars. After depreciating about 15% in 2018, the currency has appreciated to almost to 5% this month.
- The appreciation is mainly attributed to the fall in crude oil prices which has reduced the demand for dollars.

City Gas Distribution Network

Why in news?

- The Prime Minister has laid the foundation stone to mark the commencement of work for City Gas Distribution (CGD) under 9th round bidding.
- Share of Natural Gas in India's energy basket is 6.2% as against 23.4% globally and the aim is to reach 15%.

Objective

- Development of CGD networks has been focused to increase the availability of cleaner cooking fuel (i.e. PNG) and transportation fuel (i.e. CNG)
- The expansion of CGD network will also benefit to industrial and commercial units by ensuring the uninterrupted supply of natural gas.

Coverage

- After the 9th round bidding about 50% of country's population spreading over 35% of India's area is covered
- 10th CGD bidding round aims to cover 53% of the country's area and 70% of country's population

Why Natural Gas?

- Natural gas is a superior fuel as compared with coal and other liquid fuels being an environment friendly, safer and cheaper fuel.
- As per WHO database released in May 2018, India has 14 out of 15 world's most polluted cities in terms of PM 2.5 concentration.
- Natural Gas (as CNG) is cheaper by 60% as compared with petrol and 45 % w.r.t. Diesel. Similarly, Natural Gas (as PNG) is cheaper by 40 % as compared with market

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price LPG and price of PNG almost matches with that of subsidised LPG

- Large number of industries also consumes polluting fuels like pet coke and furnace oil which emit polluting CO2 and were banned recently by courts in some states.

Other initiatives

- Clean Energy initiatives taken by the Union Government include Ethanol Blending, Compressed Bio-Gas plants, increased LPG coverage and introduction of BS-6 fuels for automobiles.

Fiscal deficit

Missing the target:

- A fiscal deficit occurs when a government's total expenditures exceed the revenue that it generates, excluding money from borrowings.
- This year fiscal deficit target is likely to be missed because while the expenditure continued to rise the total receipts in Oct 2018 shrank from Oct 2017.
- The net tax receipts collected was less than expected and the non-tax receipts slowed down due to slow growth in the 8 core sectors.
- Eight Core Industries are Electricity , steel, refinery products, crude oil, coal, cement, natural gas and fertilizers. These industries grew only by 4.8% as against expectation of 5% growth.

Why in news?

- An Indian Rating agency has remarked that India may miss its fiscal deficit target of 3.3%(as set in budget) and may end up in 3.5%.
- This is a cause of worry because the data was estimated from April-Oct 2018, so the FD target has been missed in 7 months itself, 1 yr value may far exceed the expectation.

Import cover

Import cover:

- An important indicator of the stability of a currency is import cover.
- It measures the number of months of imports that can be covered with foreign exchange reserves available with the central bank of the country.
- Eight to ten months of import cover is essential for the stability of a currency.

- The forex reserve which was around \$424 billion (March 2018) fell to \$392 billion (November 2018).
- The fall in the forex reserve is mainly due to depreciation (fall in the value of rupee when compared to a foreign currency).

Why in news?

- The adequacy of foreign exchange reserve as measured by import cover declined to 10.1 months as on June 2018 compared to 10.9 months reserve last year.

GDP Growth slows

Reasons for slower growth:

- GDP which grew around 8.1% in the first quarter grew only around 7.1% in the second half.
- Economists said that while a slowdown was expected due to rise in oil prices and fall in value of rupee, the actual numbers are worrying.
- The sectors which witnessed growth above 7% are manufacturing, electricity, construction and Public Administration.
- Mining and quarrying growth contracted by 2.4% and agriculture grew only by 3.8% due to delay in monsoon.
- Analysts have predicted that with fall in crude oil price and rupee appreciating, the growth is expected to pick up.

Why in news?

- Various ratings agencies had predicted such a slowdown in the second quarter due to the impact of rising oil prices on input costs, and also due to the effect of the rupee depreciation.

Logix India

Logistics sector in India:

- Logistics is the management of the flow of things between the point of origin and the point of consumption in order to meet requirements of customers or corporations.
- India ranked 44 in the World Bank Logistics Performance Index 2018.
- This sector provides employment to more than 22 million people and is expected to grow at the rate of 10.5 per cent over the next 5 years.
- The need for integrated Logistics sector development has been felt for quite some time in view of the fact that the logistics

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- High logistics cost reduces the competitiveness of Indian goods both in domestic as well as export market.

Logix India:

- Logix India is a mega logistics event that is scheduled to take place from 31 Jan 2019-2nd Feb 2019.
- The mega logistics event is being organized by the Federation of Indian Export Organisations (FIEO) as a major initiative to improve logistics cost effectiveness and operational efficiencies for India's global trade.
- Over 20 countries are sending delegations to explore logistics partnerships with India and FIEO is focusing on logistical solutions for difficult to reach markets.
- Over 100 international delegates are expected to attend Logix India 2019.
- FIEO will also focus on investment opportunities in infrastructure development, warehouse consolidation, technology integration and IT enablement and skilling of manpower at the three-day meet.

Why in news?

- Union Minister of Commerce & Industry and Civil Aviation, Suresh Prabhu launched the logo and brochure of Logix India 2019 in New Delhi on Nov 27, 2018.

'Mission Raksha Gyan Shakti'

Background of Innovation of India's defence sector:

- India is one of the largest arms importers in the world as the indigenous production is where India continues to be in backstage.
- Huge dependence on foreign arms and technology affects India in certain sovereign decision making and a huge import bill.
- India needs to migrate from the culture of seeking Transfer of Technology (ToT) from foreign sources to generating Intellectual Property in India, to achieve the goal of self-reliance in Defence sector.

About Mission Raksha Gyan Shakti:

- 'Mission Raksha Gyan Shakti' which aims to provide a boost to the IPR culture in indigenous defence industry.
- It is an event which tried to showcase the invention and innovation by DRDO and Defence Public Sector Undertakings

(DPSUs) and Ordnance Factories (OFs) which have resulted in successful filing of Intellectual Property Right (IPR) applications.

- The event felicitated some of the scientists, who invented and innovated useful products for the nation.
- A panel discussion was held with participation of Chairman and Managing Directors of all DPSUs to formulate a strategy for the future in this regard.

Why in news?

- The minister of defence launched 'Mission Raksha Gyan Shakti' which aims to provide a boost to the IPR culture in indigenous defence industry.

NPCC - a Miniratna

About NPCC:

- National Projects Company Corporation incorporated on 9th January 1957 under erstwhile Ministry of Irrigation (Currently Ministry of Water Resources) to undertake Irrigation and Hydel Projects.
- Giant infrastructure projects which neither the private sector nor the State Government Construction Departments are ready to take is taken up by NPCC.

What are the types of status given to CPSE?

- The Department of Public Enterprises, Ministry of Heavy industry and Public Enterprise is the nodal department for all the **Central Public Sector Enterprises** (CPSEs).
- DPE makes policies and guidelines for the performance evaluation and improvement of the PSUs/ CPSEs.
- The Central Government has set eligibility criteria for granting Maharatna, Navaratna and Miniratna status to Central Public Sector Enterprises (CPSEs).

What is Maharatna status?

- The CPSEs fulfilling the following criteria are eligible to be considered for grant of Maharatna status:
1. The CPSE should already be a Navratna company.
 2. The CPSE should have average annual turnover of more than Rs. 25,000 crore, during the last 3 years.
 3. The CPSE's average annual net profit after tax should be more than Rs. 5,000 crore, during the last 3 years.

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4. The CPSE should be listed on Indian Stock exchange with minimum prescribed public shareholding under SEBI regulations.
5. The CPSE should have average annual net worth of more than Rs. 15,000 crore, during the last 3 years.
6. The CPSE should have significant presence globally.

What is Navratna status?

- A CPSE which falls under the Miniratna (Category – I and Schedule 'A' CPSEs), has obtained rating of 'very good' or 'excellent' in 3 of the last 5 years.
- A CPSE which has composite score of 60 or above in the 6 selected performance parameters, namely.

What is Miniratna status?

- The CPSEs which have following criteria fulfilled are given Miniratna status:
1. The CPSEs which have made profits in the last 3 years continuously
 2. The CPSEs which have positive net worth.

Benefits of getting Miniratna status:

- Accordingly these categories of CPSEs have been given some financial autonomy i.e. they can invest some money without the explicit government approval.
- These benefits are given to them so that they can compete in the global market and support them to become global giants.
- The empowerment of Miniratna Status to NPCC will help the company in taking speedy decisions by enhancing the delegation of powers to the Board.
- It will be a big boost to the infrastructure industry in India.

Why in news?

- National Projects Construction Corporation Limited (NPCC) has been conferred with the status of Miniratna by the Government of India.

India to export fish meal & fish oil to China

Background:

- India has a huge trade deficit of almost \$51 billion in China's favour.
- Both sides are trying to reduce the trade deficit by allowing agriculture and pharmaceuticals products from India.
- China was often accused of using non-tariff barriers to restrict trade from other countries. (A **nontariff barrier** is a way to restrict trade using trade **barriers** in a

form other than a **tariff**. **Nontariff barriers** include quotas, embargoes, sanctions, levies and other restrictions).

- Phytosanitary measure was used as a reason by China to prevent agricultural import from India.

Protocol to export fish meal and oil to China:

- A protocol on Hygiene and Inspection requirements for the export of Fish Meal and Fish Oil from India to China was signed today.
- The signing of Protocol formalises the consensus reached by both sides on hygiene and inspection requirements of fish meal and fish oil to be exported from India to China, and will enable India to commence export of fish meal and fish oil to China.
- China imports fish oil to the tune of USD 143.29 million, and fish meal to the tune of USD 263.43 million, and signing of the protocol between the two countries paves the way for export of Indian fish oil and fish meal to China.
- Both the Indian and Chinese sides appreciated each other's concerns and agreed to resolve the market access issues expeditiously to achieve the vision of the leaders of both the countries by promoting a more balanced trade.

Why in news?

- India and China commerce secretaries led delegation signed a protocol on 28 Nov 2018 on fish meal and oil export to China.

Protectionism affecting engineering exports

What is Protectionism in US and Europe?

- Protectionism is the theory or practice of shielding a country's domestic industries from foreign competition by taxing imports.
- US pull out from various trade deal and increasing tariff, trade war; Brexit situation in Europe are evidences of protectionism in these countries.

Protectionist attitude of US:

- US recently revoked GSP status of 50 products out of 90 GSP allowed products.
- 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

Officers IAS Academy, Chennai imports) to products originating in developing countries.

- Engineering exports account for about 25% of India's total merchandise exports with the SME sector contributing about 35% of the shipments. The U.S. remained the top destination followed by UAE and the U.K.
- US also recently imposed additional import duty on the engineering goods, earlier it was 6% it has been raised to 30%, which will have an huge impact on India.

Why in news?

- The Engineering Export Promotion Council (now EEPC India), the apex body of engineering exporters said that the Engineering exports may slip by about \$5 billion from the \$90 billion target set for this fiscal due to increased protectionism in the U.S. and Europe.

PMAY-U

About PMAY (U):

- Ministry/Department: Ministry of Housing & Urban Affairs.
- It is the vehicle to achieve objective of "Housing for All" Mission in Urban areas.
- The aim of this scheme is to construct more than two crore houses across the length and breadth of the nation.
- The target beneficiaries of the scheme would be poor and people living under EWS and LIG categories in urban establishments of the country.
- It also targets people living under MIG (middle income Group).
- Government will provide subsidy ranging between 1 lakh to 2.30 lakh to people from above categories in order to make them secure.
- The government would provide an interest subsidy of 6.5% on housing loans availed by the beneficiaries for a period of 15 years from the start of loan.
- The houses under Pradhan Mantri Awas Yojana would be allotted to preferably the female member of the family.

Success of PMAY (U):

- Cumulative No of Houses sanctioned under PMAY (U) now more than 65 Lakhs.
- The Ministry of Housing & Urban Affairs has approved the construction of another 205,442 more affordable houses for the benefit of urban poor.

Why in news?

- The 40th meeting of housing sanction and allotment of houses under PMAY (U) was held on New Delhi on Nov 28, 2018 during which success of PMAY was discussed.

International Relations

Wuhan spirit

Why in news?

- India and China on Saturday reaffirmed that the Wuhan dialogue was the template for advancing New Delhi-Beijing ties, and agreed to impart fresh urgency to resolving their border row.
- National Security Adviser **Ajit Doval's visit to China for the 21st edition of Special Representatives talks presents an opportunity to take stock of the dos and don'ts related to the resolution of the boundary dispute.**

Background

- A two day informal summit between Prime Minister Narendra Modi and Chinese President Xi Jinping held in the central Chinese city of Wuhan in April 2018.
- Since the Doklam Standoff, there have been no high level meetings between India and China.**
- An informal summit was thus called to improve bilateral ties and to prevent another standoff at the border.
- The summit had no fixed agenda so that a wide range of issues could be covered.



About the summit:

- The summit has shown that despite bilateral and geopolitical differences, India and China can resolve differences peacefully and through prolonged dialogue.
- Both the countries have 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.
- They attempted to reduce the heat over unresolved issues and so-called “irritants” in the relationship, such as China’s block on India’s NSG membership bid or the UN’s terror designation for Pakistan-based groups, and India’s opposition to the Belt and Road Initiative or its use of the Tibet issue by strengthening the existing mechanisms of dialogue.

Positive changes after the summit

- A statement was made by the Chinese vice foreign minister that China will not push India to join its Belt and Road Initiative (BRI) to connect countries Asia, Europe and Africa amid India’s persistent reservations on Xi’s mega project on the grounds of China–Pakistan Economic Corridor (CPEC) and financing patterns.
- Chinese business and industrial houses could now choose India as destination for Greenfield projects and not just mergers and acquisitions.

Rules for resolution boundary disputes:

- First, China has resolved all its continental land borders, except with India and Bhutan. In those instances, the U.S. was neither an ally nor a key defence partner of that counterpart country. New Delhi’s blossoming maritime ties with the U.S. implies that the India-China frontier will remain an expedient pressure point in Beijing’s playbook to signal disaffection. Full resolution will have to await when New Delhi is willing to elevate its ties with Beijing at par with Washington. Vigilance and patience are counselled in the interim.
- Second, the lack of a medium-term resolution does not prevent the two countries narrowing their boundary-related differences.
- Third, none of China’s 12 territorial settlements has been concluded under duress or reflects an obsession with cartographic detail. Rather, an opportunity cost-based calculus tied to good neighbourliness has prevailed.

- Fourth, while India has been admirably flexible in accommodating a variety of dispute settlement modes, including third-party arbitration, a solitary principles-based package approach has characterised China's territorial settlements. Mr. Doval's preference for a bottom-up approach that clarifies specific points of contention along the Line of Actual Control is unlikely to find purchase with State Councillor Wang Yi.

Kartarpur

Why in news?

- As Vice-President Venkaiah Naidu and Punjab Chief Minister Amarinder Singh together unveil a foundation stone on Monday for a six-km route leading from Dera Baba Nanak in Punjab to Kartarpur in Pakistan's Punjab on Monday, it will not just be the reopening of a route closed by Partition, but would mark the beginning of an unprecedented form of diplomacy, say diplomats.
- Pakistan's Prime Minister Imran Khan will be joined by two Indian Ministers to lay the foundation stone at the Pakistani side, where pilgrims from India will be able to visit their revered Kartarpur Sahib Gurdwara (Sikh Temple) by November 2019, to mark the **550th anniversary of Guru Nanak**. No Indian Minister has visited Pakistan since Home Minister Rajnath Singh's SAARC visit in 2016, which were followed by the Uri attacks.

About the shrine:

- The gurdwara in **Kartarpur stands on the bank of the Ravi**, about 120 km northeast of Lahore. It was here that Guru Nanak assembled a Sikh community and lived for 18 years until his death in 1539.
- The shrine is visible from the Indian side, as Pakistani authorities generally trim the elephant grass that would otherwise obstruct the view.
- **Indian Sikhs gather in large numbers for darshan from the Indian side, and binoculars are installed at Gurdwara Dera Baba Nanak.**

It's a positive development:

- Given its easy logistics, the 4-km-long Kartarpur corridor is a low-hanging fruit as a meaningful confidence-building measure.
- The initiative can also become a template for cross-border exchanges based on faith,

Officers IAS Academy, Chennai which could provide a balm for many communities.

- **Kashmiri Pandits have long asked for access to visit the Sharda Peeth in the Neelum Valley in Pakistan-occupied Kashmir.**
- Sufis in Pakistan wish to visit the dargah of **Khwaja Moinuddin Chishti in Ajmer, Rajasthan.**
- Sikhs in India and Pakistan want to visit important shrines on both sides of the border.
- The proposed corridor holds great potential for a wider thaw in India-Pakistan relations, which have languished in sub-zero temperatures for a full decade now since the Mumbai 26/11 terror attacks.
- This is probably the first instance of the two sides setting aside mutual hostility to bend to the will of the people.
- A large part of the failure of the two countries to come out of the holes into which they have dug themselves owes to the vacuum created in citizen interaction.

What made it complex?

- The "corridor" would bring Pak infrastructure right up to the Indian border. Over the past year, gurdwaras in Pakistan have been used for a **pro-Khalistan campaign**.
- Earlier this year, a gurdwara displayed posters and distributed pamphlets for the so-called "**Sikh Referendum 2020**", and Pakistan denied permission to the Indian envoy and diplomats to visit it. Pakistan's intent also remains suspect, and Indian officials are wary of the corridor being misused by both state and non-state actors in that country.

RCEP

Why in news?

- With just about 40% of the agenda items having been resolved, there is still a long way to go before the Regional Comprehensive Economic Partnership (RCEP) talks are concluded. It was agreed during the recently-concluded Singapore Ministerial meeting that the deadline for an agreement be shifted to 2019.

Singapore Ministerial meeting:

- Seventh RCEP Inter-Sessional Ministerial Meeting Concludes in Singapore.
- India had scored big diplomatic points at the Singapore meeting by getting the

countries gathered to omit the phrase 'significant conclusions' from the leaders' statements.

- Some major economies such as China and Japan felt that the phrasing should be that "substantial conclusions" had been achieved. India strongly opposed this.
- The core of the talks is about market access for goods, services and investment, and those talks are still ongoing.
- A key issue was the terminology used to define the progress made. Some major economies such as China and Japan felt that the phrasing should be that "substantial conclusions" had been achieved.
- **"India discovered that in some countries' trade parlance, 'substantial conclusions' is a legal terminology," the official explained.**
- Adopting the term would have implied that discussions on market access were over, and that those countries would have to disclose the discussions to their Parliaments, and to their public.
- This has serious implications because only five out of 16 chapters had been concluded, and after the meeting in Singapore only seven had been concluded. None of the 7 chapters settled had to do with market access, discussions on which would have been seriously jeopardised.
- After India pointed this out, several other countries such as Philippines, Indonesia, Malaysia, Vietnam, and Australia also took up the issue and supported India's position on the matter.
- One impact of this was that Japan also realised the importance of what we were saying and that India was not just making a technical point and that it was serious about the issue and so they also started supporting us.

Regional Comprehensive Economic Partnership (RCEP)

- RCEP negotiations were formally launched in November 2012 at the ASEAN Summit in Cambodia.
- RCEP aims to boost goods trade by eliminating most tariff and non-tariff barriers & a move that is expected to provide the region's consumers greater choice of quality products at affordable rates. It also seeks to liberalise investment norms and do away with services trade restrictions.



Concern for India:

- Greater access to Chinese goods may have impact on the Indian manufacturing sector. India has got massive trade deficit with China. Under these circumstances, India proposed differential market access strategy for China.
- **There are demands by other RCEP countries for lowering customs duties on a number of products and greater access to the market than India has been willing to provide.**
- **If India is out of the RCEP**, it would make its exports price uncompetitive with other RCEP members' exports in each RCEP market, and the **ensuing export-losses contributing to foreign exchange shortages** and the **subsequent extent of depreciation of the rupee** can only be left to imagination.

Global growth suffering

Why in news?

- Washington accuses Beijing of not playing fairly on trade while China says the U.S. is being protectionist.
- The United States and China have in the coming week what may be their last chance to broker a ceasefire in an increasingly dangerous trade war when their Presidents meet in Buenos Aires.
- With global growth increasingly suffering from frictions between the two biggest economies, tensions will come to a head when Donald Trump and Xi Jinping meet on the sidelines of a **G20 summit in Argentina.**
- Washington set to raise tariffs on \$200 billion worth of Chinese imports to 25% from 10% in January, if there is no agreement.
- The **Organisation for Economic Co-operation and Development (OECD)** warned this week that a full-blown trade war between China and the United States

could knock global growth 0.8% lower by 2021, and even more for the two countries.

Brexit worries

- Though the fallout from the China-U.S. standoff is hitting other regions as well, in Europe, Brexit will also occupy minds as British Prime Minister Theresa May struggles to win backing for Britain's EU withdrawal treaty.
- Securing the backing of the 27 other European Union governments in Brussels on Sunday is only a first hurdle, as a bigger obstacle looms in early December when May will seek the U.K. Parliament's backing.
- As geopolitical factors such as trade frictions and Brexit cloud the economic outlook, central bankers speeches this week will be scrutinised for any hint of a rethink about their monetary policy paths.

G20:

- It came in the aftermath of Asian financial crisis of 1999 and is a forum of governments and central bank governors from 20 major economies.
- Its purpose is to study, review, and promote high-level discussion of policy issues pertaining to the promotion of international financial stability.
- Summit level meeting was initiated after financial crisis of 2008. Therefore, since then 3 separate meetings are held head of state (Summit level), finance ministers meet, central bank governors meet.
- **G20 does not have a Secretariat, does not have any staff working for it, and it is basically a leader led forum.** Its recommendations are only advisory in nature.
- 19 countries: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, United Kingdom, United States.
- And European Union which is represented by European Commission and the European Central Bank.

Silk roads

Why in news?

- At the recent Paris peace forum commemorating the end of World War I, the heads of the International Monetary Fund and the World Bank made the case for a more inclusive multilateralism.

- Drawing comparisons between 1914 and today's situations in terms of inequalities, they warned against the temptation of a divisive **globalization** which could only benefit the wealthiest.
- China's discourse on a new "**connected**" **multilateralism, through the Belt and Road Initiative (BRI), is building upon the same inclusive project** now led by a non-Western and non-democratic superpower.
- There is indeed an ambition to influence the world, if not directly control it by making the rules on which it functions. This normative determination to achieve a far greater objective has hardly been addressed when analyzing China's BRI and its impact.

Belt and road initiative (BRI)

- The Belt and Road Initiative is a Chinese foreign policy initiative promoted by president Xi Jinping in **2013**.
- **Initially the idea of Silk Road Economic Belt (SREB) and Maritime Silk Road (MSR) was put forward.**
- Subsequently, the two projects together came to be known as 'One Belt One Road' (OBOR) Initiative. Later, it came to be known as Belt and Road Initiative (BRI).
- Aim of BRI: Build a trade, investment, and infrastructure network connecting Asia with Europe and Africa along the ancient trade routes.

Impact of BRI:

- There is more to the BRI than the six economic corridors spanning Asia, Europe and Africa, of which the \$50 billion China-Pakistan Economic Corridor (CPEC) is perhaps the most controversial.
- The BRI is included in the Constitution of an officially socialist China.
- The BRI "shared interest" and "shared growth" hence coexist with Marxism-Leninism and "capitalism with Chinese characteristics" in a country now said to be more trade-friendly than its protectionist American rival, the U.S. Beijing has never been afraid of contradictions in terms and this capacity to 'Sinicise' concepts is a signature trait.
- The BRI is a political project and a Chinese one no matter the number of other partners joining the effort and participating to its funding.

- The **BRI indeed develops without any dedicated law, nor is it a comprehensive trade or economic partnership.** It is different from conventional trade agreements that seek to eliminate market access barriers, harmonise regulations and impose preconditions for entry.
- The **institutional setting of the BRI is also rather light.**
- Joint committees are put in place and the existing institutions mobilized from the Shanghai Cooperation Organization to the Asian Infrastructure Investment Bank (AIIB), which is contributing to the BRI despite the rather distant position of some of its members and India in particular, which the largest recipient of AIIB is funding.
- In this context, China is not challenging the existing institutional set-up or proposing something different than what exists in the Bretton Woods Institutions.
- The **BRI as it stands is not conceived as a tool for economic integration.**
- The RCEP negotiations between the Association of Southeast Asian Nations and six countries is better equipped to deal with market access and integration goals within the Asia-Pacific region.
- However, **with the world trading system passing through a turmoil, the possibility of regional trade agreements or amorphous legal devices such as the BRI embracing greater trade liberalisation goals cannot be entirely ruled out.**

Comprehensive Convention on International Terrorism (CCIT)

Why in news?

- 71st session of United Nations General Assembly (UNGA), foreign minister Sushma Swaraj appealed the global community for early adoption of the Comprehensive Convention on International Terrorism (CCIT).

About CCIT:

- It is a proposed intergovernmental convention which will provide legal teeth to prosecute terrorist acts as it intends to criminalize all forms of international terrorism and deny terrorists, their

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financiers and supporters access to funds, arms and safe havens.

- India first proposed formation of CCIT at the UN back in 1996.
- Over the years, negotiations are stalled due to differences over the definition of terrorism. There is different understanding of definition of terrorism mainly due to distinction made between “Terrorist organizations” and a “liberation movement”.
- “Good terrorists” and “bad terrorists”.
- A series of terror attacks since the beginning of the year in India as well as in Bangladesh have revived the Indian diplomatic establishment’s interest in voting and early adoption of the anti-terror convention.

Objectives:

- To have a universal definition of terrorism that all 193-members of the UNGA will adopt into their own criminal law.
- To ban all terror groups and shut down terror camps.
- To prosecute all terrorists under special laws.
- To make cross-border terrorism an extraditable offence worldwide.

Arguments against universal definition of terrorism:

- Despite India’s efforts to push a global intergovernmental convention to tackle terrorism, the conclusion and ratification of the CCIT remains deadlocked, mainly due to opposition from three main blocs – The US, the Organization of Islamic Countries (OIC), and the Latin American countries.
- All these three blocs have objections over the “definition of terrorism” and seek exclusions to safeguard their strategic interests.
- For instance, the **OIC wants exclusion of national liberation movements, especially in the context of Israel-Palestinian conflict.**
- The **US wants the draft to exclude acts committed by military forces of states during peacetime.**
- **Latin American countries have reservations about international humanitarian laws and human rights being ignored.**

Science & Technology

Kumbh Mela alters bacterial load and diversity

Why in news?

- Bacterial populations in the river undergo huge loss in diversity but a steep increase in bacterial load when millions of people bathe at designated bathing sites during Kumbh Mela, a team of researchers has found. The loss in microbial diversity was nearly 37.5% while the increase in bacterial load was about 130-fold during the event.
- The team led by Dr. Avinash Sharma from the National Centre for Cell Science, Pune, found that bacteria belonging to certain phyla reduced significantly while the prevalence of bacteria belonging to phylum Firmicutes (known to be also associated with human skin, stools and many infectious pathogens) was nearly 95%.

About the study:

- The study was carried out in 2015 at five bathing sites in the Godavari River in Nashik and the results were published in the journal Microbial Ecology. Samples were collected prior to and during the Mela allowing the scientists to compare the spatiotemporal changes to water quality and bacterial communities.
- The **biological and chemical oxygen demand increased** due to higher release of organic particles during the Mela compared with before the Mela.
- As a result, there was “**substantial reduction**” in the concentration of dissolved oxygen.
- During the same study, the researchers discovered a new bacterium, which they named *Corynebacterium godavarianum* that showed resistance to antibiotics like amoxicillin, augmentin, cefpodoxime and clindamycin.

Dissolved Oxygen (DO)

- Presence of organic and inorganic wastes in water decreases the dissolved Oxygen (DO) content of the water.
- Water having DO content below 8.0 mg/L may be considered as contaminated. Water having DO content below 4.0 mg/L is considered to be highly polluted.

- DO content of water is important for the survival of aquatic organisms. A number of factors like surface turbulence, photosynthetic activity, O₂ consumption by organisms and decomposition of organic matter are the factors which determine the amount of DO present in water.
- The higher amounts of waste increases the rates of decomposition and O₂ consumption, thereby decreases the DO content of water.

Biological Oxygen Demand (BOD)

- The demand for O₂ is directly related to increasing input of organic wastes and is expressed as biological oxygen demand (BOD) of water.
- **Water pollution by organic wastes is measured in terms of Biochemical Oxygen Demand (BOD).**
- BOD is the amount of dissolved oxygen needed by bacteria in decomposing the organic wastes present in water. It is expressed in milligrams of oxygen per liter of water.
- The **higher value of BOD indicates low DO content of water**. Since BOD is limited to biodegradable materials. Therefore, it is not a reliable method of measuring pollution load in water.

Chemical Oxygen Demand (COD)

- Chemical oxygen demand (COD) is a slightly better mode used to measure pollution load in water.
- COD measures the amount of oxygen in parts per million required to oxidize organic (biodegradable and non-biodegradable) and oxidisable inorganic compounds in the water sample.

Awareness needed:

- We need to create awareness among pilgrims to avoid open defecation and maintain personal hygiene to reduce the amount of microbes that get introduced into the river.
- A closed system for bathing prior to taking a dip in the river should be put in place to reduce contamination of human-associated skin bacteria
- Besides taking a dip in the river, pilgrims also drink the holy water. “Drinking this water containing infectious disease genes

and antimicrobial-resistant genes could pose serious health issues. It might be preferable to drink the holy water much upstream where fewer people bathe”.

Premature births in India

Why in news?

- A recent study that analyzed nearly 8,000 women in India who gave birth between 2004 and 2005 and 2011 and 2012 (India Human Development Survey) has pointed out that there is a strong association between adverse birth outcomes and sanitation access, gender-based harassment and physical labour.
- Poor sanitation, harassment reasons for birth problems in India.

About the study:

- About 14.9% and 15.5% of the study group experienced preterm birth and low infant birth weight respectively.
- The researchers found that spending more than two hours per day fetching water was associated with low birth weight while open defecation or sharing latrine within the building was associated with greater chances of low birth weight or preterm birth.
- Another shocking find of the study was that harassment of women and girls in the community was also associated with both preterm birth and low infant birth weight.
- Though there were limitations due to self-reported behaviors and small sample size, the study was able contribute to the limited evidence related to sanitation infrastructure and other social factors that play a role in preterm birth and low infant birth weight.

Indian Human Development Survey (IHDS)

- IHDS has been jointly organized by researchers from University of Maryland and **National Council for Applied Economic Research (NCAER), New Delhi.**
- Largest household survey after NSSO.
- NCAER is the only independent body that conducts such large sample panel surveys.

Malaria in India

Why in news?

- The World Malaria Report 2018 of the World Health Organisation notes that India's record offers great promise in the quest to cut the number of new cases and

Officers IAS Academy, Chennai deaths globally by at least 40% by 2020 and to end the epidemic by 2030.

- The declining trend of the scourge shows that sustained public health action can achieve good results.

Highlights of the report:

- The WHO report highlights a sharp drop in the number of cases in the State. The reduction in cases by half in 2017 compared to the same study period in 2016 appears to reinforce research findings.
- The malaria cases in **Odisha** have been coming down steadily since 2003, with a marked reduction since 2008, attributed to greater political and administrative commitment.
- A lot of that optimism has to do with the progress made by Odisha, one of the most endemic States.
- This positive trend should encourage authorities not just in Odisha, but in the northeastern States and elsewhere too to cut the transmission of the disease further.
- Importantly, the reduction in the number of cases should not produce complacency and lead to a reduction in the deployment of health workers and funding cuts to programme components.
- One issue that requires monitoring in India is resistance to combination therapy using artemisinin.
- Recent reports indicate that some patients in West Bengal became resistant to the treatment protocol used for the falciparum parasite, which causes debilitating cerebral malaria and leads to a high number of deaths.
- Eliminating malaria requires an integrated approach, and this should involve Chhattisgarh, Jharkhand and West Bengal, which have a higher burden of the disease.
- Odisha's experience with using public health education as a tool and reaching out to remote populations with advice needs to be replicated.
- Given that emerging resistance to treatment has been reported in Myanmar, among other countries in this belt, there is a need for a coordinated approach to rid southern Asia of malaria.

Facts about Malaria:

- Malaria is a mosquito-borne **infectious disease** caused by various species of the **parasitic protozoan** microorganisms called **Plasmodium**.

- Malaria was so prevalent during the Roman times that the disease is also called 'Roman Fever'.

HIV & cognitive impairment

Why in news?

- A new study reveals Children infected with the Human Immunodeficiency Virus (HIV) have to endure a significant adverse impact on their neurodevelopment and cognitive functioning.

Important facts about the study:

- Report highlighted significant fluctuations in regions of the brain that are associated with auditory, language; sensory and motor functional networks of HIV infected children. Similar characteristics were earlier detected in adults.
- Infected children were also found to have significantly decreased Amplitude of Low Frequency Fluctuations (ALFF) and Functional connectivity (FC) in multiple brain regions that are related to cognition.

Killer virus

- Human Immunodeficiency Virus (HIV) attacks the immune system
- The virus is found in semen, blood, vaginal and anal fluids, and breastmilk
- The virus can be transmitted from mother to child during pregnancy, birth, or breastfeeding
- According to the National Aids Control Organization (NACO), as of 2017, India had 2.14 million people living with HIV
- The most affected population are people who inject drugs, transgenders, gay men and commercial sex workers

- The findings will facilitate early detection of structural and functional brain changes, allowing appropriate treatment and therapies to improve functional activities in children with immunity disorders.

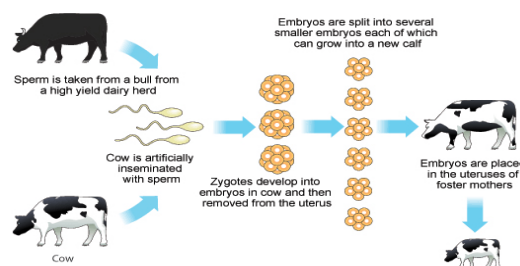
Embryo transfer technology

Embryo Transfer Technology

- Embryo transfer is a technique by which embryos are collected from a donor female and are transferred to recipient females, which serve as surrogate mothers for the remainder of pregnancy.
- Embryo transfer techniques have been applied to nearly every species of domestic animal and to many species of wildlife and exotic animals, including humans and non-human primates.
- Embryo transfer technology has revolutionized the breeding strategies in

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Bovines as a tool to optimize the genetic improvement in cattle.



Benefits of ETT:

- A farmer can get a 5-6 fold increase in number of offsprings.
- The calves so born will be of high genetic merit.
- The offsprings born will be free from diseases.

Why in news?

- Union Agriculture & Farmers Welfare Minister Shri Radha Mohan Singh has said that agriculture and dairy business complement each other for the social and economic upliftment of cattle farmers.
- To achieve this objective, it is essential to have good quality livestock breed in order to increase production. Speaking on the occasion of "National Milk Day" (26th Nov).
- Under the Rashtriya Gokul Mission (RGM), 10 semen centres have been identified for the production of Sex Sorted Semen for the production of more female animals.
- Proposals for two centres, in Uttarakhand and Maharashtra, have been approved.

Government initiatives:

- **Rashtriya Gokul Mission** has been launched December 2014 for the development and conservation of indigenous bovine breeds thereby enhancing milk production and productivity.
- The framework of the scheme is to enhance milk production & productivity through induction of high genetic merit bulls for semen production; field performance recording; strengthening of bulls mother farms; setting up of Gokul Grams etc.
- **National Mission on Bovine Productivity:** It has been launched in November 2016 with the aim of enhancing milk production and productivity and thereby making dairying more remunerative to the farmers. The scheme is being implemented with following components.

- a) **Pashu Sanjivni**-It includes identification of animals in milk using UID, issuing health cards to all animals in milk and uploading data on INAPH data base.
- b) **Creation of E Pashuhaat Portal**-The e-pashuhaat portal has been launched in November 2016 for linking farmers and breeders of indigenous breeds.
- c) **Establishment of National Bovine Genomic Centre for Indigenous Breeds (NBGC-IB)**:The NBGC-IB is being established for enhancing milk production and productivity through genomic selection among indigenous breeds.
- d) **INDUSCHIP**: INDUSCHIP has been developed for genomic selection of indigenous breeds and 6000 dairy animals have been genetically evaluated using INDUSCHIP.

Green Diwali

Why in news?

- The Supreme Court direction about the use of only 'green' crackers, and that too, only during two hours at night (which, too, was not honored).

What is green cracker?

- It is one that should not contain elements such as lithium, antimony, lead, mercury and some others, which cause environmental and personal health issues.
- It also should not have high power explosives such as perchlorate, periodate and barium. This direction was given by the court, based on the recommendations of the Petroleum and Explosives Safety Organization (PESO) of India.

About firecracker:

- Strontium nitrate is used for producing red color, aluminum for sparkles and aluminum with Sulphur for the cracker noise. Barium is used for the green color.
- Perchlorate, which has been used as an excellent explosive agent, is unfortunately very unsafe. It is known to affect thyroid gland function and might also be carcinogenic.
- Indian manufacturers still use barium. This too is not 'green' but toxic. Barium intake may affect the kidneys leading to neuropathy has been shown in rats and mice.

Marijuana

Why in news?

- Indian doctors are hoping to take advantage of the more favourable way the west is looking at medical cannabis.
- India is likely to kick off its own studies on medical marijuana. Led by the Council of Scientific & Industrial Research-Indian Institute of Integrative Medicine (CSIR-IIIM) and the Tata Memorial Centre (TMC), Mumbai.
- The studies into the therapeutic potential of marijuana are part of larger governmental thrust to making new drugs derived from herbs and plants that find mention in Ayurveda and other traditional medicine knowledge system.

Marijuana:

- Marijuana is greenish grey mixture of dried shredded leaves, stems, seeds and flowers of the cannabis hemp plant.
- Most people smoke marijuana, though it can also be used in other forms such as edibles, powders and oils.
- It used for controlling pain for medical issues, like cancer, nervous system diseases, glaucoma, migraines, etc. and also used to treat nausea and improve appetites for people with HIV or other chronic illnesses.
- Cannabis is banned in most countries but number countries have started decriminalizing its use in recent years.

Historic significance:

- Cannabis has been used since ancient times in India, dating back to 2000 BCE.
- The cannabis plant has been mentioned as one of five sacred plants in the Vedas. They are Asvattha, Darbha/Kusha, Soma , Cannabis and Rice.

HysIS

Why in news?

- HysIS, the country's first hyperspectral imaging satellite for advanced Earth observation, is slated for launch on Thursday from Sriharikota.
- About 30 small satellites of foreign customers will be its co-passengers on the **PSLV launcher, numbered C-43**, the Indian Space Research Organisation has announced.

About the satellite:

- A **hyperspectral imaging camera** in space can provide well-defined images that can help to identify objects on Earth far more clearly than regular optical or remote sensing cameras, ISRO Chairman K. Sivan said earlier.
- The technology will be an added advantage in watching over India from space across sectors including defence, agriculture, land use and mineral exploration.
- Sources said the new 'eye in the sky' can be used to even mark out a suspect object or person on the ground and separate it from the background with applications in trans-border infiltration etc.
- The primary goal of HysIS is to study the Earth's surface in visible, near-infrared and shortwave infrared regions of the electromagnetic spectrum.
- HysIS will be ISRO's first full-scale working satellite with this capability. While the technology has been around, not many space agencies have working satellites with hyperspectral imaging cameras as yet.
- Third longest mission.

Definition of kilogram

Why in news?

- Scientists have changed the way the kilogram is defined. The decision was made at the **General Conference on Weights and Measures**. The new definitions will come into force on 20 May 2019.
- For more than a century, the kilogram had been defined as the mass of a cylinder of platinum-iridium alloy kept in a high-security vault in France.
- That artefact, nicknamed '**Le Grand K**', had been the world's sole true kilogram since 1889.
- But now, the kilogram will be defined in terms of a tiny but unchanging value called the '**Planck constant**'.
- The 'Planck constant', which derives from quantum physics, can be used along with a Kibble balance, an exquisitely accurate weighing machine, to calculate the mass of an object using a precisely measured electromagnetic force.

Why the kill of kilogram?

- Le Grand K has been at the forefront of the international system of measuring weights since 1889. Several close replicas were made and distributed around the globe.

- But the master kilogram and its copies were seen to change ever so slightly as they deteriorated.
- In a world where accurate measurement is now critical in many areas, such as in drug development, nanotechnology and precision engineering those responsible for maintaining the international system had no option but to move beyond Le Grand K to a more robust definition.
- **The fluctuation is about 50 parts in a billion, less than the weight of a single eyelash. But although it is tiny, the change can have important consequences.**

How a new system works?

- Electromagnets generate a force. Scrapyards use them on cranes to lift and move large metal objects, such as old cars. The pull of the electromagnet, the force it exerts, is directly related to the amount of electrical current going through its coils. There is, therefore, a direct relationship between electricity and weight.
- So, in principle, scientists can define a kilogram, or any other weight, in terms of the amount of electricity needed to counteract the weight (gravitational force acting on a mass).

Fish hospitals in India

Why in news?

- Kashmir is only the second in the country to have a fisheries hospital, and has even launched a 'fish health app' for farmers.
- Established by the Faculty of Fisheries at the Sher-e-Kashmir University of Agricultural Sciences and Technology (SKUAST), the fish hospital at Rangil in Ganderbal district will cater to about 300 fish farmers from the state.
- The country's first hospital to treat abnormalities and diseases in fish established in kolkata 2015. which was funded by the Indian Council of Agricultural Research, under the Union Ministry of Agriculture, has a budget of Rs five crore.

Poli Oxime gel

Why in news?

- Scientists from inStem, Bangalore, have developed a gel to protect farmers who are exposed to harmful effects of pesticides.

About the gel:

- Indian farmers are exposed to high levels of pesticide as a result of not wearing any protective gear while spraying chemicals in fields.
- A gel known as poly-Oxime is developed by scientists from Institute for Stem Cell Biology and Regenerative Medicine, (inStem) which protects the farmers exposed to pesticides.
- The **protective called poly-Oxime when applied on skin protects the farmers by hydrolyzing the harmful organophosphates present in common pesticides.**
- **According to WHO classification of Pesticides by Hazard, organophosphate pesticides belong to class 1, which means the pesticide is extremely/highly hazardous.**
- The organophosphates are commonly found in various commercial pesticides, insecticides, and fungicides.
- The organophosphates present in the pesticides enters the human body through skin, lungs when inhaled 10-15%, enters the bloodstream when ingested.
- The organophosphates pesticides cause harm by primarily inhibiting a critical enzyme in the nervous system called **acetylcholinesterase (AChE).**

Drawback:

- While the gel prevents organophosphates from entering the body through skin, they can still enter the body through inhalation and ingestion.
- Thus the gel is not an effective barrier to pesticide vapour.

Improving traffic efficiency

Why in news?

- A group at IIT Madras has **studied Indian traffic conditions and come up with three counter-intuitive strategies** to improve efficiency of oversaturated traffic flow through road intersections.

Three strategies:

- The distance between two successive vehicles (headway) increases with duration of the green signal. This implies that longer the duration of green signal, there would be fewer throughputs, thereby reducing the efficiency of the signal.
- Dr Ramadurai arrived at the first strategy: keeping the duration of green signals short

enough that the headway reaches a saturation value, in his paper in *Communication Systems and Networks*, conference proceedings published by IEEE.

- The second strategy proposed in the paper is to have **bottleneck metering** along the lines of traffic control on expressways, near entry points and exits. **Like highways, expressways have points where traffic leaves or enters through lanes, such as in T-junctions.**
- The third strategy is based on the observation that two-wheelers have significantly lower headways compared with others, they also have negligible start-up delay. Also, in congestion, two-wheelers filter through the gaps and increase overall throughput.
- Two-wheeler throughput can be increased significantly by providing them space upfront at a signalized intersection without affecting other vehicles significantly.
- The **complex interactions [between different types of vehicles] are broken down by physically separating two-wheelers from three-wheelers, cars, and heavy vehicles and this may be a reason for smoother flow resulting in reduction in overall delays.**
- **Real-world trials are required to validate this hypothesis since simulation models are only an abstraction of reality.**

Genetically edited babies

Why in news?

- A Chinese scientist at the centre of an ethical storm over what he claims are the world's first genetically edited babies and he is proud of his work and revealed that another volunteer is pregnant as part of the research.
- He Jiankui said that he used a **gene-editing technology** known as **CRISPR-Cas9** to alter the embryonic genes of twin girls born this month and gene editing would help protect the girls from infection with HIV, the virus that causes AIDS.

Gene editing technology:

- **Gene Editing is type of genetic engineering in which DNA is inserted, deleted, modified or replaced in the genome of living organism.**
- Unlike early genetic engineering techniques that randomly insert genetic

material into a host genome, genome editing targets the insertions to site specific locations.

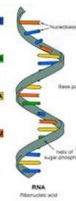
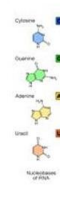
DNA

- Sugar = Deoxyribose
- Double stranded
- Bases
 - ▣ Cytosine
 - ▣ Guanine
 - ▣ Adenine
 - ▣ Thymine



RNA

- Sugar = Ribose
- Single Stranded
- Bases
 - ▣ Cytosine
 - ▣ Guanine
 - ▣ Adenine
 - ▣ URACIL (U)



CRISPR-Cas9:

- CRISPR technology is basically a **gene-editing technology**, that can be used for the purpose of altering genetic expression or changing the genome of an organism.
- The technology can be **used for targeting specific stretches of an entire genetic code or editing the DNA at particular locations.**
- CRISPR technology is a simple yet powerful tool for editing genomes. It allows researchers to easily alter DNA sequences and modify gene function.
- **Its many potential applications include correcting genetic defects, treating and preventing the spread of diseases and improving crops. However, its promise also raises ethical concerns.**

Combating Zika

Why in news?

- In Washington, researchers including one of Indian origin, have developed six Zika virus antibodies which may help diagnose as well as treat the mosquito-borne disease that has infected over 1.5 million people worldwide.

Antibodies:

- **Antibodies, also called immunoglobulins, Y-shaped molecules are proteins manufactured by the body that help fight against foreign substances called antigens.**
- Antigens are any substance that stimulates the immune system to produce antibodies. **Antigens can be bacteria, viruses, or fungi that cause infection and disease.**

Antibodies

- Antibodies are proteins.
- Variable sites have the antigen binding domain.
- There are five basic kinds of antibodies. (Immunoglobulins M, G, E, D and A)
- The variable region of the antibody that specially binds to an epitope is called paratope.
- Protects the body by immobilization or lysis of antigenic material.

Antigen

- Generally proteins but can be lipids, carbohydrates or nucleic acids.
- Triggers the formation of antibodies.
- There are three basic kinds of antigens. (Exogenous, Endogenous and Autoantigens)
- The region of the antigen that interacts with the antibodies is called epitopes.
- Cause disease or allergic reactions.

- The antibodies "**may have the dual utility as diagnostics capable of recognising Zika virus subtypes and may be further developed to treat Zika virus infection,**" said Ravi Durvasula from Loyola University in the US.
- **Zika is spread mainly by mosquitos.** Most infected people experience no symptoms or mild symptoms such as a rash, mild fever and red eyes.
- However, infection during pregnancy can cause miscarriages, stillbirths and severe birth defects such as microcephaly, said Adinarayana Kunamneni, a research assistant professor at Loyola University.
- There is no effective vaccine or drug to treat the disease, said Kunamneni, senior author of the study published in the **journal PLOS ONE.**
- Using a **technology called ribosome display;** researchers **generated six synthetic antibodies** that bind to the Zika virus.

- The antibodies, which are inexpensive to produce, could be used in a simple filter paper test to detect the Zika virus in the field. If the filter paper turns colour, the Zika virus is present.
- **Since the Zika virus is evolving, it's useful to have six different antibodies. In the event the virus mutates, it's likely at least one of the antibodies still would match the virus and thus could still be used in diagnosis and treatment.**

Defence and security

Central Monitoring System

Why in news?

- Ten years after the 26\11 terror strikes, Maharashtra is better placed to benefit from real-time, actionable intelligence, processed through its Central Monitoring System (CMS) and the Lawful Interception System (LIS).

CMS:

- **The Central Monitoring System**, abbreviated to CMS, is a centralized telephone interception provisioning system installed by the Centre for Development of Telematics (C-DOT), an Indian Government owned telecommunications technology development centre, and operated by Telecom Enforcement Resource and Monitoring (TERM).
- Government has set up the Centralized Monitoring System (CMS) to automate the process of Lawful Interception & Monitoring of telecommunications. CMS has got the approval from government.

About the news:

- The successful implementation of the CMS with inclusion of the GCI, LAI and location in the Call Data Record (CDR) has enhanced the intelligence collection abilities of the State in the past few years.
- Senior officials of the State Intelligence said implementation of the CMS and LIM have

helped agencies get full data without any hindrances from TSPs.

KONKAN-18

Why in news?

- KONKAN-2018 will be conducted from 28 Nov to 06 Dec 18 off Goa with units participating from both navies.

About KONKAN-2018:

- Naval cooperation between India and the United Kingdom is based on the long term strategic relationship between both countries.
- Both Navies have, over the years, undertaken bilateral activities such as training exchanges and technical cooperation.
- The exercise is aimed at deriving mutual benefit from each other's experiences and is indicative of the continuing cooperation between the two countries
- The inter-operability achieved over the years as a result of such exercises has proved to be operationally beneficial to both navies.
- The naval cooperation is a tangible symbol of the commitment of both nations in ensuring a positive climate at sea for enhancing strategic stability and promoting economic prosperity.

Environment

Stratospheric aerosol injection (SAI)

What is stratospheric aerosol injection (SAI)?

- Stratospheric aerosol injection which involves spraying into the stratosphere fine, light-coloured particles designed to reflect back part of the solar radiation (global dimming).
- Sulphur Dioxide gas is used for the process.
- Researchers believe that geo-engineering technique known as stratospheric aerosol injection (SAI) could limit rising temperatures that are causing climate change.

What is geoengineering?

- Geoengineering (also known as Climate engineering or climate intervention) schemes are projects designed to tackle the effects of climate change directly, usually by removing CO₂ from the air or limiting the amount of sunlight reaching the planet's surface.

Stratospheric aerosol injection - how it works?

- Large quantities of sulphate particles need to be sprayed in the upper atmosphere using hoses, cannons or special aircrafts to act as a reflective barrier against sunlight.
- The method is not yet proven and hypothetical
- The cost to launch a SAI effort 15 years from now would cost \$3.5 billion and the average operating costs would be about \$2.25 billion a year over 15 years.
- The research assumes that a special aircraft can be designed to fly at an altitude of about 20 km and carry a load of 25 tonnes.

Advantages

- Possibly cut the temperature by half
- Inexpensive process

Risks

- It could cause droughts or extreme weather in other parts of the world.
- Affect crop yields
- It could also lead to potential public health and governance issues.

Similar methods

- Cirrus cloud manipulation: Here the cirrus clouds are removed or thinned so that their long-wave trapping capacity is reduced and thus cools the surface.
- Marine cloud brightening: The low warm clouds which are highly reflective to

sunlight are modified to increase their reflectivity.

- Space sunshade: Obstructing sunrays with space-based mirrors
- Using pale-coloured roofing material or growing high albedo crops, cirrus clouds are removed or thinned

Why in news?

- Scientists at Harvard University have conducted study on how to reduce global warming by using stratospheric aerosol injection (SAI)

Ganga rejuvenation

About the notification

- The notification divides the Ganga into two stretches and different seasons such as dry season: November –March; lean season: October, April and May; monsoon season: June – September
- Upper stretches which includes from the origin in glaciers to Haridwar should maintain 20% of monthly average flow during dry season, 25% during lean season and 30% during monsoon months
- The notification specifies minimum flow at various barrages along the course between Haridwar in Uttarakhand and Unnao in Uttar Pradesh such as Bhimgoda: 36 cumecs between October and may and 57 cumecs during monsoon. Barrages at Bijnor, Narora and Kanpur must maintain 24 cumecs in non-monsoon months and 48 cumecs during monsoon months.

Critics

- The actual flow at barrages downstream of Haridwar is already above the minimum flow set by the notification which is supported by data from Central Water Commission
- If the government is serious about reducing pollution, it should install sewage treatment plants instead of ensuring natural flow isn't blocked.
- All under-construction dams in the upper reaches should be stopped and the design of existing dams should be modified in order to ensure that flow in lower reaches is atleast 50% of monthly average flow.

Why in news?

- A notification was passed by the government regarding the maintenance of flow along the River Ganga

Amur falcon

About Amur Falcons

- They are the longest travelling raptors in the world. It breeds in south-eastern Siberia and Northern China before migrating in large flocks across India and over the Arabian Sea to winter in Southern Africa.
- Every year Amur falcons take a long journey covering many countries including China, Mongolia, Russia and India to reach Somalia.
- Amur falcons come to roost at Doyang Lake in Wokha district of Nagaland every year, during their flight from Mongolia to Africa.
- A few thousands halt in Tamenglong district of Manipur and some parts of Nagaland where they feed on termites and other insects for about three weeks.

Risks in Manipur

- Amur Falcons are hunted in hundreds every day in Tamengong district and sold for meat.
- Poachers also kill the birds in the Loktak Lake

Infrastructure bottlenecks

- Wildlife officials posted in the district are not issued firearms because of the insurgency flourishing in this region.
- There is no high-speed boat to chase the poachers

Why in news?

- A female Amur falcon named 'Tamenglong' fitted with GPS transmitter by forest officials in Manipur reached Somalia covering 5700km in 5 days.

Islands of India

Highlights from the report

- The ZSI has for the first time come up with a database of all faunal species found on the Andaman and Nicobar Islands.
- The island group comprising 0.25% of India's geographical area is home to 11,009 faunal species which is more than 10% of country's fauna species.
- There are 1067 endemic faunal species found only in Andaman and Nicobar Islands like the Narcondam hornbill, Nicobar megapode, Nicobar treeshrew,

Officers IAS Academy, Chennai

Long-tailed Nicobar macaque and Andaman day gecko etc

- There are ten species of marine fauna found on the islands. The dugong/sea cow, and the Indo-Pacific humpback dolphin, is classified as Vulnerable under the IUCN Red List of Threatened Species.
- Andaman shrew (*Crocidura andamanensis*), Jenkin's shrew (*C. jenkinsi*) and Nicobar shrew (*C. nicobarica*) are the three species out of the 46 terrestrial mammalian species which have been categorised as Critically Endangered. Five species are listed as Endangered, nine species as Vulnerable, and one species as Near Threatened, according to the IUCN.
- Endemism is quite high among birds which are evident from the fact that 36 among 344 species of birds are found only on the islands.
- Eight species of amphibians and 23 species of reptiles are endemic to the islands, and thus are at high risk of being threatened.
- Another unique feature of the islands' ecosystem is its marine faunal diversity, which includes coral reefs and its associated fauna. In all, 555 species of scleractinian corals (hard or stony corals) are found in the island ecosystem, all which are placed under Schedule I of the WPA.
- Similarly, all species of gorgonian (sea fans) and calcerous sponge are listed under different schedules of the WPA

Threats

- The island's biodiversity faces threats from tourism, illegal construction, mining and volatile climatic factors.
- Some of the species in A&N Islands are restricted to a very small area and thus more vulnerable to any anthropogenic threat
- In a recent development, the Government of India relaxed the Restricted Area Permit (RAP) norms for some foreign nationalities notified under the Foreigners (Restricted Areas) Order, 1963, to visit 29 of its inhabited islands
- The development model that is being pursued at the macro level, such as tourism, construction and development of military, are not taking into account three factors —
 1. ecological fragility of the area (the endemism)
 2. geological volatility (earthquakes and tsunamis),

3. Impact they will have on local communities

Andaman and Nicobar Islands

- The Andaman and Nicobar Islands comprises of 572 islands, islets and rocky outcrops covering a total area of 8,249 sq. km located in the Bay of Bengal.
- The population of the islands is not more than 4 lakh.
- It includes six particularly vulnerable tribal groups (PVTGs) — Great Andamanese, Onge, Jarawa, Sentinelese, Nicobarese and Shompens
- The number of tourists visiting the island annually is 4.87 lakhs.

Restricted Area Permit

- As per the Foreigners (Restricted Areas) Order 1968, a Restricted Area Permit (RAP) is required for non-Indians to visit certain areas in India.
 - Every foreigner who wants to visit a restricted area has to obtain a special permit from the competent authority.
 - Citizens of Afghanistan, China and Pakistan and foreign nationals of Pakistani origin are exception and are not allowed to enter such areas.
 - Under the Foreigners (Restricted) Areas Order, 1963, the following areas have been declared as 'Restricted' Areas :-
1. Andaman & Nicobar Islands - Entire Union Territory
 2. Sikkim - Part of the State

Why in news?

- The Zoological Survey of India (ZSI) has released a document titled "Faunal Diversity of Biogeographic Zones: Islands of India"

Forest advisory committee (FAC)**What is Forest advisory committee (FAC)?**

- Forest advisory committee is a statutory body of the Ministry of Environment Forests and Climate Change (MoEFCC) formed under the Forest Conservation Act of 1980.
- It is a 6-member committee.
- FAC advises the ministry on any activity that requires the diversion of forestland for non-forest use.

Why in news?

- The Forest advisory committee (FAC) has rejected proposals from the Andhra Pradesh Government regarding conversion of forest lands into infrastructure projects

Brazil loses forests**Findings**

- An area of 7900 sq km of forest was cleared between august 2017 and july 2018. Deforestation has increased by 14%.
- Deforestation was slowed down between 2004 and 2012 due to efforts of government and private sector.

Amazon rainforest

- The Amazon region holds the largest tropical rainforest in the world and is home to plant and animal species that are still being discovered by scientists.
- The Amazon is a vast region that spans across eight rapidly developing countries: Brazil, Bolivia, Peru, Ecuador, Colombia, Venezuela, Guyana, Suriname and French Guiana
- It is a moist broadleaf forest in the Amazon biome that covers most of the Amazon basin of South America.
- It represents more than half of Earth's remaining rainforests and covers an area of 5.5 million sq km.
- It is sometimes referred to as the lungs of the Earth

Concerns

- There are threats from illegal logging as well as farming (especially soybean plantations) and pasture land for cattle
- It could get worse if the President elect relaxes environmental rules. He has said to clear more forest area for agriculture and pasture land. He also said that he would end protected areas, indigenous reserves, reduce power to inspect and punish environmental crimes etc.

Why in news?

- Greenpeace has said that in a year Brazil gas lost forests equal to the size of one million football pitches

Captive elephants**About the census**

- It was the first-ever captive elephant census undertaken in the state.
- 521 elephants were recorded in the census conducted by the Forests and Wildlife department.
- Information regarding measurements, permanent shelters and information of

owners and mahouts were collected during the census.

National elephant census

- Nationwide elephant population estimation exercise is conducted every 5 years by forest departments of elephant range states.
- In 2017, the national elephant population was estimated at around 27312.
- The 2017 census was the first ever synchronized all India elephant population estimation.
- Karnataka has the highest number of elephants (6,049), followed by Assam (5,719) and Kerala (3,054).
- Techniques like direct count, indirect count, waterhole methods and elephant distribution mapping were used for the estimation.
- The population had decreased by 3000 compared to the 2012 census.

Why in news?

- The first ever captive elephant census was conducted in Kerala.

Transport sector pollution

How?

- The axle load of trucks has been increased by 20-25% which will lead to reduction in pollution.
- Mandatory fixing of fastags in all new vehicles and transport vehicles has reduced waiting time at tolls and in turn reduce pollution.

Why in news?

- Minister of State for Road Transport mentioned the reforms taken in transport sector that can reduce pollution.

Paris climate deal

What is Paris climate deal?

- At COP 21 in Paris, on 12 December 2015, Parties to the UNFCCC reached a landmark agreement to combat climate change and to accelerate and intensify the actions and investments needed for a sustainable low carbon future.
- The Paris Agreement central aim is to strengthen the global response to the

Officers IAS Academy, Chennai threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.

- Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change.
- The Paris Agreement requires all Parties to put forward their best efforts through “nationally determined contributions” (NDCs) and to strengthen these efforts in the years ahead.
- This includes requirements that all Parties report regularly on their emissions and on their implementation efforts.
- There will also be a global stock take every 5 years to assess the collective progress towards achieving the purpose of the agreement and to inform further individual actions by Parties.

Status of ratification

- The Paris Agreement entered into force on 4 November 2016, thirty days after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55 % of the total global greenhouse gas emissions have deposited their instruments of ratification, acceptance, approval or accession with the Depository.

India's INDC targets

- Reduce emission intensity by 33 to 35 per cent by 2030 compared to 2005 levels
- Produce 40 per cent of electricity from non-fossil fuel based energy resources by 2030, if international community helps with technology transfer and low cost finance.
- Create an additional carbon sink of 2.5 to 3 billion tonnes of carbon dioxide equivalent by 2030 through additional forest and tree cover.
- Develop robust adaptation strategies for agriculture, water and health sectors

Why in news?

- India has said that it will resist attempts by countries to renegotiate the Paris Agreement

Culture

Ram statue

Why in news?

- The state of Uttar Pradesh has cleared plans to build 221m Ram statue on the banks of River Saryu

About the statue

- The height of the Ram statue would be 151 metres, its overhead umbrella would be 20 metres and the pedestal would be 50 metres
- The statue will be made of bronze
- The pedestal will have a modern museum showcasing history of Ayodhya, legendary Ishvaku dynasty and Raja Manu, and the Ram Janmabhoomi.
- The government did not reveal the details of cost, funding, or exact location

River Saryu

- The Saryu is a river that flows through the Indian states of Uttarakhand and Uttar Pradesh.
- This river is of ancient significance, finding mentions in the Vedas and the Ramayana.
- Ayodhya is situated on the banks of river Saryu

Other planned Ram statues

- The government has also planned another statue of Lord Ram at Shringverpur, a site near Allahabad revered by Nishads.
- A statue of Nishadraj, the caste icon and boatman who, as per Hindu beliefs, helped Lord Ram along with his wife and brother cross the Ganga during exile will also be built next to Lord Ram statue.

Begur fort

About Begur

- Begur is a town in the Indian state of Karnataka.
- It is said to have been a prominent place when the Western Ganga Dynasty and the Chola Kingdom ruled.
- Panchalingeshwara temple was built by Akthiyar under chola kingdom and has a 1100 years old inscription, which has an existing reference to 'Bengaluru' as early as 819 AD.
- The Begur fort was owned by Chola empire by Thanjai, Tamilnadu.

Challenges

- Protected sites have a 300 m buffer where construction activity is prohibited or

restricted but this site of Begur is surrounded by urban settlements.

Why in News?

- The Department of Archaeology, Museums and Heritage under Archaeological Survey of India(ASI) has asked for the transfer of land titles of the circular 700 to 800-year-old mud fort at Begur from the Revenue Department for better protection of structure.
- Indian National Trust for Art and Cultural Heritage (INTACH) has been pushing for protection, recognition and conservation of heritage properties across the city.
- Begur Fort's protection has been recommended along with the Panchalingeswara temple located nearby.

Iravatham Mahadevan

Why in news

- Iravatham Mahadevan who was a leading scholar on the Indus Valley and Tamil Brahmi scripts, passed away.



His works and achievements

- He was the former member of the Indian Administrative Service (IAS) and a **Padma Shri-awardee** and retired voluntarily in 1980.
- He was awarded the Jawaharlal Nehru Fellowship in 1970 for his research on the Indus script and the National Fellowship of the Indian Council of Historical Research in 1992 for his work on the Tamil Brahmi inscriptions.
- He was the Editor of the Tamil daily, Dinamani.
- His 'The Indus Script - Texts, Concordance and Tables,' was published by the

Archaeological survey of India in 1977 which forms a resource for Indus Valley scholarship.

- His 'Early Tamil Epigraphy', first published jointly by Harvard University, Cre-A (Online Tamil language Repository) in 2003 and Central Institute of Classical Tamil is regarded as the most authoritative work on early South Indian epigraphy.
- He also established the Indus Research Centre at the Roja Muthiah Research Library and founded the Vidyasagar Educational Trust, to support under-privileged students.

What is epigraphy?

- Epigraphy is the study of inscriptions or epigraphs that includes the writing, clarifying meanings and classifying their uses according to dates and cultural contexts and drawing conclusions on the writing and the writers.

Indus valley script

- In the Indus Valley Civilization, the style of script is Boustrophedon i.e. Written from right to left in first line and from left to right in second line.
- The first common feature is Indus script on seals. This script has not been deciphered yet.

Tamil Brahmi Script

- Tamil-Brahmi, or Tamili, is a variant of the Brahmi script used to write the Tamil language.
- These are the earliest documents of a Dravidian language.
- The script was well established in the Chera and Pandyan states, (Presently Tamil Nadu, Kerala, Andhra Pradesh and Sri Lanka)
- The language is Archaic Tamil, and led to classical Sangam literature.
- Tamil Brahmi differs in several ways from Ashokan Brahmi. It adds diacritics (a sign used along with the letter which adds to a difference in pronunciation) to several letters for sounds not found in Prakrit of Ashokan Brahmi.

South Asia Youth Peace Conference

Why in News

- A three-day South Asia Youth Peace Conference as part of Celebrating 150th birth anniversary of Mahatma Gandhi, was inaugurated in the capital.

Organising Committee

Officers IAS Academy, Chennai

- The Conference is being organised by Gandhi Smriti and Darshan Samiti, UNESCO MGIEP and STEP (Standing Together to Enable Peace).

About the conference

- The representing countries include: Afghanistan, Bangladesh, Bhutan, Maldives, Nepal and Sri Lanka discussed different dimensions of 'peace'.
- Representative of the UNESCO MGIEP talked about UNESCO's 'International Youth Campaign on Kindness for Sustainable Development Goals' to mobilize the world youth to achieve 17 SDG through acts of kindness.
- The conference had conversations on Gender, Food Security, Interfaith Harmony, Digital media, Art Democracy and other Dialogues.

Gandhi Smriti and Darshan Samiti

- Located at Rajghat (Delhi), Gandhi Smriti and Darshan Samiti was formed in September 1984 by the merger of Gandhi Darshan at Rajghat and Gandhi Smriti.
- Gandhi Smriti is one of the biggest museums of Gandhi and has a library where around 60,000 books are kept, 6000 original photos of Gandhi preserved and has bookshops selling books of Gandhi.
- The room Mahatma lived in and the prayer ground where he fell a martyr attract a large number of visitors daily.

Indigenous film festival

Importance of the indigenous film festival

- It aims to showcase the issues and enemies the indigenous communities face in the form of predatory Indian corporates who devastate the forests for minerals and plantations.
- The developments at the cost of this indigenous identity have been destructing the rainforests and oil plantations thereby affecting a range of habitations ranging from Niyamgiri tribes of Odisha to West Papua tribes, their traditions and environment.

Why in News?

- India's first international indigenous film festival will take place in February next year is an initiative of activist film, Video Republic.

Miscellaneous

Self defense for women

Why in news?

- Kangazha village in Kottayam will earn the distinction of having all its women aged 10-60 trained in self-defence. 7,800 women of this village get self-defence instruction.

More about training:

- The training was imparted initially through a core team of five master trainers from the Kerala police, who then reached out to the Kudumbashree units.
- Classes were held on weekends and soon the attendance outgrew the space.
- Instead of complex martial arts techniques, women are taught easy-to-remember defence tactics that incapacitate the attacker.
- The training comprised modules on the various types of assaults women face, such as molestation on public transport and domestic violence.

Nariman Light House

Why in news:

- A waterfall monument inscribed with names of all the victims of 26/11 terror attack including the policemen and National Security Guards and plaques of the sites where the terrorists attacked, surrounded with lush green plants forms the rooftop memorial at the Nariman House, the Jewish center in Colaba.

More about the news:

- The memorial will be formally inaugurated on the tenth anniversary of the ghastly attacks on the city.
- This is the only memorial that honours all the victims of the attack, even as the attack took place at many locations.
- The terrace memorial is the first phase of the museum. It will be opened for the public soon and those interested can register online.
- In the second phase that will be ready by end of next year, the fourth and fifth floors

of the building will be designed with the theme- 'from darkness to light'.

Ironman 70.3

Ironman 70.3:

- An Ironman 70.3, also known as a Half Ironman, is one of a series of long-distance triathlon races organized by the World Triathlon Corporation (WTC).
- The "70.3" refers to the total distance in miles (113.0 km) covered in the race, consisting of a 1.2-mile (1.9 km) swim, a 56-mile (90 km) bike ride, and a 13.1-mile (21.1 km) run.
- Each distance of the swim, bike, and run segments is half the distance of that segment in an Ironman Triathlon.
- The Ironman 70.3 series culminates each year with a World Championship competition, for which competitors qualify during the 70.3 series in the 12 months prior to the championship race.
- In addition to the World Championship race, Ironman 70.3 championship competitions are also held for the European, Asia-Pacific, and Latin America regions.

Significance of the event:

- With changes in lifestyle in nutrition and food, events such as this help people to be active participants.
- The previous title winners of the event are expected to tour the country on creating awareness on training, nutrition and hydration.
- Creates employment for many coaches and active participation of women.
- Promotes tourism and infrastructure on location where the event is held.

Why in news?

- On October 20, 2019, the world's 127th Ironman 70.3 race, and India's first, will be held in Goa.

News in-depth

General Studies-1

Minorities in India

Introduction

- Officially, there are 6 minorities in India viz. Muslims, Christians, Sikhs, Buddhists, Parsis and Jains.
- The Union Government set up the National Commission for Minorities (NCM) under the National Commission for Minorities Act, 1992. Its mandate is to evaluate progress of development of Minorities.

Constitutional provisions

- The term "Minority" has not been properly defined anywhere in the Indian Constitution. But minority status has been conferred on many groups.
- According to the Article 29 and 30 of the Constitution, any group living within the jurisdiction of India is entitled to preserve and promote its own language, script or literature, and culture and administer educational institution.

Issues affecting the conditions of minorities in India

- Because of the differences in socio-cultural practices, history and backgrounds, minorities have to grapple with the issue of identity with majority section.
- Different identity and their small number relative to the rest of the society develop feeling of insecurity about their life, assets and well-being.
- The minority community in a society may remain deprived of the benefit of opportunities of development as a result of discrimination.
- Communal tensions and riots have been increasing since independence hence minority interests get threatened.
- Lack of Representation in Civil Service and Politics The total Muslim representation in Parliament is 4%, the lowest since 1957 against 13% of total population.
- Muslim community is performing very poor in economic and educational indicators among various minorities and Muslims are facing a vicious circle of poverty.

Education and employment opportunities among Muslims

- The NSSO's 68th round (2011-12) provides estimates of education levels and job market indicators across major religious communities in India. According to it:
 1. Around half the Muslim population over 15 years is either illiterate or has only primary or middle school education. The number of illiterate people is highest among Muslims (190 per 1,000).
 2. The current attendance rate among Muslims is least across all age groups.
 3. In urban areas, the number of male Muslim postgraduates is as low as 15 per 1,000. This number is about four times lower than that of other communities, including Hindus, Christians and Sikhs.
 4. The average per capita consumption expenditure (used as an indicator of income) among Muslims is just ₹32.66 per day, which is the least among all religious groups.
- The high level of illiteracy among Muslims and the low levels of general education ensure that they are trapped in a vicious circle of poverty. The lack of higher education is adversely affecting their job indicators.

Government initiatives

- PM 15 points programme for welfare of the minorities, which is an overarching programme covering various schemes/initiatives of different ministries.
- USTAAD aims at upgrading Skills and Training in preservation of traditional Ancestral Arts/Crafts of minorities.
- Hamari Dharohar aims to preserve rich heritage of minority communities in context of Indian culture.
- Khwaja Garib Nawaz Senior Secondary School Will be established at Ajmer by Maulana Azad Education Foundation (MAEF) to give a fillip to minority education.
- Nai Manzil provide a bridge course to bridge the academic and skill development

gaps of the deeni Madrasa pass outs with their mainstream counterparts.

- Nai Roshni scheme is envisaged to reach out to women through nongovernmental organizations who will be provided with financial support and to conduct leadership development trainings so that women are empowered and emboldened to move out of the confines of home and community.

Way ahead

- There is urgent need to provide enough opportunities and platform to the minorities so that they can become a part of mainstream society.
- Initiatives on the education front would largely benefit in the long run. Self empowerment and inclusive development should be agenda of the government.
- To realise Sabka Saath Sabka Vikas holistic model of development is the key.

Metoo movement

Introduction

- The 'MeToo' movement was founded in 2006 by Tarana Burke. It was to help survivors of sexual violence, by creating a community of survivors who move forward together.
- The #MeToo spread virally as a hashtag used on social media in an attempt to demonstrate the widespread prevalence of sexual harassment in the workplace.
- Over the last few weeks women from entertainment and journalism using social media platform to name and shame alleged men who sexually harassed them in the past.

Significance of the movement

- Huge support of public from both male and female has been gathered which is a move for gender equality and cooperation.
- Women are no longer ashamed to name the accuser. Campaign has built courage among the victims to publicly name the perpetrator.
- Voluntary participation of lawyers and fund for legal activity raised for justice to sexual victims.
- Perhaps, it can act as a deterrent.

Concerns about the movement

- Not a inclusive- women working in unorganised sector unable to take part in the movement.

- Difficult for women working in the corporate world where organisation is mostly hierarchical in nature.
- Most critical aspect of the movement "what should constitute sexual harassment?" is yet to comprehensively defined.
- Questions regarding when and how the state and other institutional mechanisms come into play if an allegation is made.
- Difficult to prove it legally, also it damages a person's reputation and even if they are proved innocent later.
- Social media and Media house make a person a convict even if the person even before a person is given a chance to speak. They can be politically motivated.

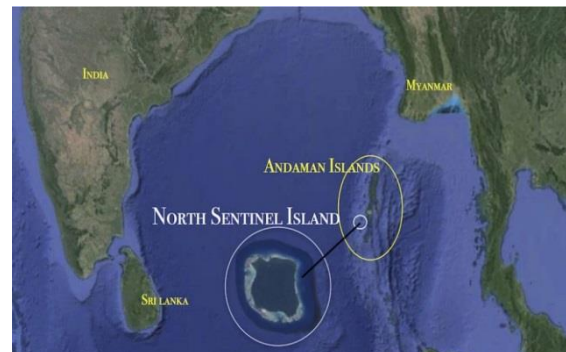
Steps taken to curb sexual harassment in the working places

- Supreme Court gave Vishaka guidelines to eliminate all forms of discrimination and to ensure safety and security to women.
- Parliament passed Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal).
- There should be an internal grievances complaints committee if it is a work place of more than 10 employees.
- Establishment of SHe-box recently to register online complaints of harassment.
- Coordinating with international initiatives like CEDAW of UN and HeForShe campaigns.

Way forward

- Need for policymakers to closely examine the how the existing working system are not supportive to women's issues.
- Attitudinal change and gender sensitive training should take importance in all working institutions.
- Even for making false allegations and charges women should be punished.

The Sentinelese: not so lost in time



Why in News?

- The tragic death of a young American adventurer John Allen Chau by the Sentinelese tribe has triggered global media interest and debate in the region once again.

In detail of the news

- The incident took place in the protected “tribal reserve” of North Sentinel Island in the Andaman and Nicobar Islands archipelago.
- The Restricted Area Permit (RAP), that allows people from visiting certain locations with permission, may be re-imposed in the Island following the incident.
- A delegation of the National Commission for Scheduled Tribes (NCST) will visit Andamans and Nicobar Island, to assess the situation.

About NCST

- NCST is constitutional body set up under Article 338A added through Constitution (89th Amendment) Act, 2003
- It comprises Chairperson, Vice-Chairperson & Three full-time Members (including one woman).

Functions

- Investigate and monitor all matters relating to the safeguards provided for the STs under the Constitution.
- Inquire into specific complaints with respect to the deprivation of rights.
- Participate, advise and evaluate in planning process of socio-economic development of the STs under the Centre and any State.
- Present an annual report before President, upon the working of those safeguards.
- To recommend measures to be taken by Governments for effective implementation of those safeguards

About the Sentinelese Tribe

- The Sentinelese are an indigenous people who inhabit North Sentinel Island in the Bay of Bengal in India who live in almost isolation in one part of the country with a size estimate of 40 to 500 individuals.
- The Sentinelese is considered as one of the Andamanese peoples as the North Sentinel Island is part of the Andaman Islands.
- The sea surrounding the 59.67 sq. km. island allows them to fish with bows, arrows and spears.
- This tribe is the most isolated among the Particularly Vulnerable Tribal Groups (PVTG) in Andaman and Nicobar islands.

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- According to the records of the ANSI publication, The Sentinelese have the reputation of hostility towards outsiders, if they felt people were going to occupy their land, but have been contacted by anthropologists through 26 expeditions since the 1970s. It is stated that seven were met with overt hostility.
- Having lived in isolation they have no immunity to even the commonest of infections.
- A protocol of circumnavigation of the island and the buffer maintained around the island is enforced under various laws.

About the other tribes of the region

- There are four ancient Negrito tribal communities in the Andaman Islands (the Great Andamanese, Onge, Jarawa and Sentinelese) and two Mongoloid tribal communities in the Nicobar Islands (the Shompen and Nicobarese).

What is the debate?

- Some see it as signs of a pathological “primitivity” while some see it as the result of “complete isolation” from “civilisation” due to the colonial brutality.
- But the photographic evidence with the Government of India’s own official “contact” 1970s onwards questions the “complete isolation” thesis.
- While there are Images of angry Sentinelese pointing at or shooting arrows at a passing helicopter is in the media at the same time there are other images of them receiving coconuts, bananas and other gifts from government contact parties.
- The question is from where are these glass beads in their necklaces, trinkets, large tarpaulin sheets and ready supplies of iron to make adze blades and arrowheads come from?
- Some have called for the Sentinelese to be convicted and punished and others have urged that they be integrated into modern society.

From the history

- The Andaman and Nicobar Islands have historically been treated as terra nullius, or empty space, wherein mainland governments could inscribe their authority and initiate projects of control.
- The British initiated projects treating the islands as a strategic outpost and then a penal colony.

- Angered at this, the tribes attacked the British in 1859. The **battle of Aberdeen** was fought between two groups and many tribes were wiped out.
- The Indian government made it a free society but used it as a space to settle its “excess” population like the refugee rehabilitation schemes in the post-Partition years.

India's policy towards these tribals

- Jawaharlal Nehru's Tribal Panchsheel was the guiding principles after Independence to formulate policies for the indigenous communities of the Andaman and Nicobar Islands.
- Based on them, the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation (ANPATR), 1956 was promulgated by the President.
- This Regulation protected the tribals from outside interference and said no land in a reserved area shall be allotted for agricultural purposes or sold or mortgaged to outsiders and those violating the land rights were to be imprisoned for one year, fined ₹1,000, or both.
- A policy of non-intervention was sought to bring the Jarawas into the mainstream.
- In 2005, nearly 50 years after it was promulgated, the ANPATR was amended.
- But the Andaman Trunk Road led to increased interaction with the tribals mainly the Jarawas, leading to the spread of diseases, sexual exploitation, and begging.
- Following this, the government amended the ANPATR yet again in 2012, creating a buffer zone that prohibited tourist operators.

International conventions

- While the Indigenous and Tribal Populations Convention, 1957, of the International Labor Organization (ILO) insisted on an integrationist approach towards tribal communities, the 1989 convention insisted on a policy of non-intervention.
- India ratified the 1957 convention but not the 1989 convention and tried to tread the path of non-interference.
- India needs to sign the 1989 convention of the ILO.
- The administration enforces “an **‘eyes-on and hands-off’** policy to ensure that no poachers enter the island”.

Way forward

- The death of the 27-year-old on November 17 demands efforts to protect one of the world's last “uncontacted” tribes, whose language and customs remain a mystery to outsiders.
- There is hope that the Prime Minister's forthcoming visit to the Andaman and Nicobar Islands for the new projects must be context-sensitive “island view” of development and recognize PVTGs as equal stakeholders in a common sustainable future.

Aadi Mahotsav and tribal paintings

Aadi Mahotsav event

- The event is a vision of Late Shri Atal Bihari Vajpayee for tribal empowerment which is participated by the tribal artisans from across the states.
- The highlights of the festival include demonstration for 4 different school of painting i.e. Warli, Pithora, Gond and Saura showcasing tribal textiles and tribal accessories.
- Steps towards digitization have been taken in partnership with online retailers to enable selection and purchase of tribal products through the shopping sites.

What is TRIFED?

- TRIFED stands for The Tribal Cooperative Marketing Development Federation of India Limited.
- The cooperative is engaged in marketing and support of tribal products through a network of retail outlets.
- It was established in August 1987 by Multi-State Cooperative Societies Act, 2002.
- It is a national-level apex organization under the Ministry of Tribal Affairs with its Head Office in New Delhi.
- Its objective also includes institutionalizing trade of Minor Forest Produce (MFP) and Surplus Agriculture Produce (SAP) collected or cultivated by tribals.
- It also works as an agency to the FCI for procurement of wheat and rice.

School of painting explained

Warli School of painting:

- Warli painting is a style of tribal art created by the tribal people from the North Sahyadri Range in India.
- It originated in Maharashtra.
- The ritual paintings are usually created on the inside walls of village huts which are made up of earth and red brick that make a red ochre background for the paintings.
- The Warli only paint with a white pigment made from a mixture of rice paste and water, with gum as a binder and a bamboo stick as a paintbrush.
- Walls are painted only to mark special occasions such as weddings or harvests.

Pithora School of painting:

- It is a highly ritualistic painting practised by tribes like Rathwas, Bhilalas of Central Gujarath on the walls of the houses to plead the gods for a boon.
- The walls are treated with a double layer of cow dung and a layer of chalk powder before painting.
- The Bhadwa or the head priest of the tribe listens to the problem of people which can vary from dying cattle, to unwell children in the family.
- The concerned person is given a solution and is asked, by the Bhadwa, to perform the ritual and the painting.
- Pithora paintings are characterized by the seven horses representing the seven hills that surround the area where the Rathwas reside. This is enclosed within a rectangular fence which extends up to the Arabian Sea in the west, Bharuch in south and Indore in north and east. The wavy line depicting the river Narmada cuts through the painting.

Gond school of painting:

- Gond art is practised by “Gondi” tribe of Central India.
- The art form celebrates life i.e, hills, streams, animals, birds etc. painted on the mud walls of their house.
- Gond comes from the Dravidian expression, Kond which means ‘the green mountain’.
- While Gond paintings are considered to be from predominantly from Madhya Pradesh, it is also

Officers IAS Academy, Chennai quite common in Andhra Pradesh, Maharashtra, Chhatisgarh and Odisha.

- The bardic priests perform rituals in the form of figurative and narrative visual art depicting the natural and mythological worlds, traditional songs and oral histories.
- Jangarh Singh Shyam was the first Gond artist to use paper and canvas for his art.
- Gond paintings bear a remarkable likeness aboriginal art from Australia

Saura School of painting:

- Saura tribal painting is a style of wall mural paintings associated with the Sauda tribals of the state of Odisha in India.
- These paintings, also called ikons (or ekons) are visually similar to Warli paintings and hold religious significance for the Sauras.
- People, horses, elephants, the sun and the moon and the tree of life are recurring motifs in these ikons.
- The paintings' is prepared from red or yellow ochre earth which is painted by brushes made up of tender bamboo shoots.
- The dyes are derived from ground white stone, hued earth, vermilion and mixtures of tamarind seed ,flower and leaf extracts.
- Saura paintings have a striking visual semblance to Warli art and both use clear geometric frames for their construction but the difference is
 1. Saura paintings have a fish-net approach - of painting from the border inwards which is not the case with Warli paintings.
 2. Warli paintings have male and female icons that are clearly distinguishable whereas in Saura art there is no such physical differentiation.

Why in News?

- The 4th edition of annual “Aadi Mahotsav” which is a National Tribal Festival was celebrated in Dilli Haat, New Delhi.
- It is organized by Ministry of Tribal Affairs in association with TRIFED and Ministry of Culture to celebrate and cherish the spirit of tribal culture, craft, cuisine and commerce.

General Studies-2

Allied and Healthcare Professions Bill, 2018

Need for the bill

- In the current state of healthcare system, there exist many allied and healthcare professionals, who remain unidentified, unregulated and underutilised. Allied and Healthcare Professionals can be utilised to improve and increase the access to quality driven services in the rural and hard to reach areas.
- Skilled and efficient Allied and Healthcare Professionals (A&HPs) can reduce the cost of care and dramatically improve the accessibility to quality driven healthcare services.
- Globally, Allied and Healthcare Professionals typically attend undergraduate degree programme and may attain up to PhD level qualification. However, most of Indian institutions offering such courses lack standardisation.
- There exists a lack of comprehensive regulatory framework and absence of standards for education and training of A&HPs.
- The Bill thus seeks to establish a robust regulatory framework which will play the role of a standard-setter and regulator for Allied and Healthcare professions.
- There is a necessity for adequately trained allied healthcare professionals who can work independently without the guidance of doctors.

Features of the bill

- Establishment of a Central and corresponding State Allied and Healthcare Councils
- The Bill provides for Structure, Constitution, Composition and Functions of the Central Council and State Councils
- e.g. Framing policies and standards, Regulation of professional conduct, Creation and maintenance of live Registers, provisions for common entry and exit examinations, etc.
- The Central Council will comprise 47 members and the State Councils will be made of 28 members.
- Professional Advisory Bodies under Central and State Councils will examine issues independently and provide recommendations relating to specific recognised categories.

- The State Council will undertake recognition of allied and healthcare institutions.
- Offences and Penalties clause have been included in the Bill to check malpractices.
- The Bill also empowers the Central and State Governments to make rules.
- Central Govt. also has the power to issue directions to the Council, to make regulations and to add or amend the schedule.
- The centre will play the role of policy formulation and co-ordinator and the states will deal with implementation.

Impact

- Bring all existing allied and healthcare professionals together
- Opportunity to create qualified, highly skilled and competent jobs in healthcare by enabling professionalism
- High quality, multi-disciplinary care in line with the vision of Ayushman Bharat, moving away from a 'doctor led' model to a 'care accessible and team based' model
- Opportunity to cater to the global demand (shortage) of healthcare workforce which is projected to be about 15 million by the year 2030, as per the WHO Global Workforce, 2030 report
- The efficiency of doctors will improve as allied healthcare professionals can play a greater role. The doctors can visit more patients.
- It will give rise to increased wages for healthcare workers and provide employment.

Challenges in implementation

- Diverse stakeholders need to be brought together which involves a long, tedious, deliberate and detailed effort.
- The states need to be brought into the scheme and state councils need to be created.

Effect on Ayushman Bharat scheme

- 70% of primary care can be handled by allied healthcare professionals. Therefore properly trained allied healthcare professionals can take care of primary and preventive care in health and wellness centres.
- The allied healthcare workers can play a greater role under doctor's supervision in tertiary care. It will also improve the productivity of doctors.

- Therefore both the pillars of Ayushman Bharat scheme are strengthened.

Neighbourhood first?

Introduction:

- India is one of the fastest growing economies in South Asia. It is the seventh-largest country by area, the second-most populous country (with over 1.2 billion people).
- It shares its land borders with Afghanistan, Myanmar, Bhutan, Burma, Bangladesh, China, Nepal, and Pakistan and in Indian Ocean; it is in the vicinity of Sri Lanka and Maldives.
- India's government nature toward the neighbour countries is **always peaceful and positive**. Government, for this, has been making the policies and efforts to make good relation with the neighbour countries.

Background

- The roots of the policy 'Neighbour's First' began from Look East policy which was initiated by the former Indian Prime Minister P V Narasimha Rao.
- The purpose was simple and clear, to maintain friendly relations with neighbouring countries and to cultivate extensive economic and strategic relations with the nations of Southeast Asia in order to bolster its standing as a regional power and a counterweight to the strategic influence of the People's Republic of China.
- The major dispute between India and China began when India gave asylum to Dalai Lama before Indo-Sino war. In spite of signing the Panchsheel Agreement, in 1962, China attacked India in the North-East and occupied a part of Indian Territory. The war ended soon but relations between India and China remained strained for a long time to come.
- The visits of the former Indian Prime Ministers Rajiv Gandhi (in 1988) and Narasimha Rao (in 1993) to China have improved the situation to some extent.
- Several trade agreements have also been signed. But it is not an easy task to restore peace and mutual trust between the two countries.
- South Asia comprises the countries lying to the south of the Himalayas and the Hindukush mountains.

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- India, Pakistan, Nepal, Bhutan, Bangladesh, Maldives and Sri Lanka are the countries belonging to the region. Most of these countries were previously ruled by the British. They have similar cultures, social habits and economic problems.
- All these countries face problems arising out of overpopulation, poverty, malnutrition, illiteracy etc.
- It is believed that these countries of South Asia could progress fast only through cooperation with each other and by devising common plans for development.
- This concept led to the formation of the South Asian Association for Regional Cooperation (SAARC) with the objective of mutual economic and social development. SAARC and ASEAN are two main pillars of Neighbour's First Policy.

Present scenario:

- Suhasini Haider, an International relations expert talked about recent changes in Neighbourhood policy of Modi government.
- There is gradual shift in the government's neighbourhood policy of 2018, that resounds closer to the "neighbourhood first" articulation of 2014.
- The government has changed its role from playing big brother in the neighbourhood to a more generous and avuncular version.

Maldives:

- In mid-November Prime Minister Modi attended the swearing-in of Ibrahim Mohamed Solih as the country's President. This was Mr. Modi's first visit to the Maldives, the only country in South Asia he had not yet visited in his tenure and the first by an Indian Prime Minister in seven years. In swearing in ceremony Prime Minister's gesture was softer as he chose to be one among the audience rather than on stage.
- Earlier, Prime Minister cancelled his trip in 2015 to register a strong protest at the treatment of opposition leaders, who are now in government.
- When emergency was declared by the previous regime of Abdulla Yameen, New Delhi made no attempt to threaten him militarily despite expectations of domestic commentators and Western diplomats.
- When Mr. Yameen denied visas to thousands of Indian job seekers and naval and military personnel stationed there,

New Delhi's response was much softer by declaring that every country has a right to decide its visa policy.

Nepal:

- With Nepal, the government's moves were a clear turn-around from the 'tough love' policy since the 2015 blockade. After the re-election of K.P. Sharma Oli, External Affairs Minister Sushma Swaraj went to Kathmandu despite of his anti-India campaign.
- Since then, Mr. Oli has been invited to Delhi and Mr. Modi has made two visits to Nepal, with a third one planned in December to be part of the "Vivaha Panchami" festival. The frequency of visits in 2018 is in stark contrast to the three preceding years, when Mr. Modi did not visit Nepal at all.

Afghanistan:

- After a policy of more than two decades of refusing to engage with the Taliban, in November India sent envoys to the Moscow conference on Afghanistan, where the Taliban's representatives were present. The U.S. chose to send a diplomat based in Moscow as an "observer", but the Indian delegation of former Ambassadors to the region represented non-official "participation" at the event.
- Earlier, the government had stayed aloof from the process, explaining that any meeting outside Afghanistan crossed redline on an "Afghan-owned and Afghan-led solution".
- Although the change in position was eventually achieved by a high-level outreach by the Russian government and Afghanistan President Ghani himself. Ghani had made a strong pitch for backing talks with the Taliban during a visit to Delhi in mid-September.

Pakistan:

- India sent two Union Ministers to Pakistan to join Prime Minister Imran Khan for the ground-breaking ceremony for the Kartarpur corridor, as part of the larger pattern of softening towards the neighbourhood.

With other countries:

- During election campaign in Bhutan and Bangladesh and during the political crisis in Sri Lanka, India has chosen to make no public political statement that could be construed as interference or preference for one side over the other.

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- Reason for this change in approach author cited is receiving of certain backlash from some of its smallest neighbours like Nepal and the Maldives in recent times.
- Another could be the conscious rolling back of India's previous policy of dissuading neighbours from Chinese engagement to now standing back as they learn the risks of debt-traps and over-construction of infrastructure on their own.

Civil-military relationship: Preventing another scuffle

Why in News?

- In Bomdila, arunachal pradesh there was tussle between military and police.
- The police arrested two army men and were mistreated. The battalion of army scouts vandalised whole police station the very next moment when talks failed between higher authorities.
- To sooth the situation Defence minister Nirmala Sitharaman has to visit the area and bridge the gap.

How different are two?

- The Bomdila incident is not the first time when there was a tussle between civil administration and the military having locked horns. There is a delicate thread that links the uniformed and non-uniformed sections
- The civil administration deals the complicated pressures from social strife, economic hardships, and law and order.
- The uniformed services, on the other hand, see themselves as protectors of the nation even at the cost of their own lives. A soldier puts all his faith in his commander with a faith that he r is supreme and will always look after his interests as well as those of his family.
- This implicit faith of the soldier, makes the sailor and the airman best in their leadership. A commander's order is sacrosanct and a soldier on the front line follows it unflinchingly despite knowing that he could lose his life the next moment.
- For military effectiveness this type of military culture is required and of course it is different from that of a civilian's

Core issues:

- Both should acknowledge each other. Military should respect the expertise of the civil administration and the latter should

respect and ensure that a soldier does feel a bit special.

- This special feeling of soldier should be by solving the everyday pressures that a soldier and his family face, issues of pay and allowances, precedence with civilian counterparts, a lack of good schooling on account of frequent postings, housing issues, land litigation and the like.
- This results in healthy civil-military relations.
- Respecting is different from worshipping. Worshipping the military as God leads to resentment among certain sections of society. We need to understand two core questions: who controls the military and how? What degree of military influence is appropriate for a given society?
- Recent use of military in civil activities (like building bridges, countering local crimes, disaster management etc.) makes civil employees lose faith in them.
- Civil-military relation is an art which require delicate nursing through statesmanship.

The case for a progressive international

Introduction:

- In 2018, it was revealed that India is facing legal claims from international investors in as many as 23 arbitration cases, before various tribunals.
- It is important to note that these claims, which are worth billions of dollars, arise out of bilateral investment treaties between India and other states.
- Further, one striking feature of such treaties is that they allow international investors (primarily MNCs) to initiate a dispute directly in an international tribunal, bypassing the state's own constitutional system and its courts.
- The disputes revolve around measures that were triggered by public health emergencies, economic crises or other matters directly involving public welfare which would therefore be permissible under the Constitution, but which a corporation believes have negatively impacted its financial interests.

What is gig economy?

- In a gig economy, temporary, flexible jobs are commonplace and companies tend

Officers IAS Academy, Chennai toward hiring Independent contractors and freelancers instead of full-time employees. A gig economy undermines the traditional economy of full-time workers who rarely change positions and instead focus on a lifetime career.

Transnational issues:

- This reveals an important truth about the contemporary, globalised world, issues that were earlier resolved within a sovereign state in accordance with its constitutional system have now acquired a transnational character
- **For example, because of its attempts to make essential medicines affordable through amendments to its Patent Act, India has come under pressure from the U.S. and the European Union (at the behest of prominent pharmaceutical companies), while finding support and emulation in countries like South Africa and Thailand.**
- In 2011, the EU seized shipments of life-saving Indian drugs that were being transported to Africa and Latin America, on the basis that it could apply its more restrictive patent and customs laws to goods in transit through its territory.
- The transnational character of these issues suggests that the response cannot succeed if it is unilateral
- The issues are not limited to conflicts before international forums. Recent months have seen clashes between national regulatory authorities and the corporations that drive the new "gig economy", such as Uber.
- Just like in the case of investment treaties, it is often difficult for one country to tackle the problem alone especially when the corporation is global in character, and can issue a credible threat of withdrawing substantial levels of investment.

The question of accountability:

- While global problems cannot be solved without nation-states, nation-states cannot solve their problems on their own.
- India's battle to preserve affordable access to medicines is part of a larger struggle, where participation in the global intellectual property regime has severely constrained the ability of countries to respond to public health crises.
- Whatever a country's Constitution may say about the right to life and the right to health

for its citizens, it will still be dragged before an international tribunal if it attempts to forestall or mitigate a public health crisis by lifting patent restrictions upon, for example, a life-saving drug.

- The point is not only about who finally succeeds in litigation — rather, it is that the final decision is taken by a set of individuals who are beyond the structures of accountability that are established in democratic and constitutional states.

Example of DiEM25 (Democracy in Europe Movement 25)

- It is always helpful to look elsewhere, to see how people in other parts of the world have attempted to engage with such issues.
- An example is that of the Democracy in Europe Movement 25. DiEM25 arose after the debt crisis in Greece had resulted in a wide-ranging “structural adjustment programme” imposed upon that country by the European Commission, the European Central Bank, and the International Monetary Fund (or “the troika”).
- This included severe austerity measures (including cuts to public funding, resulting in mass unemployment) and widespread privatisation, in direct contravention of the publicly expressed will of the people, through both elections and a public referendum.
- The central insight of DiEM25 is one of whose co-founders, Yanis Varoufakis, was Greece’s Finance Minister during the debt crisis is precisely that today a progressive movement oriented towards social justice and fundamental rights cannot succeed if it is constrained within national borders.
- Many of the fundamental decisions that shape national policy (with wide-ranging consequences) are simply beyond the ken of nation-states themselves.
- DiEM25 identifies as “pan-European”, and isolates a range of issues “currently left in the hands of national governments powerless to act upon them” including public debt, banking, inadequate investment, migration, and rising poverty.
- In its manifesto, DiEM25 returns these issues to democratic control, but also acknowledges that the solutions needed to achieve this can only come from transnational action.

Understanding DiEM25 in India’s context:

- For example, what steps a country like India must take to ensure the availability of life-saving drugs (and not only during a public health crisis) is a decision that must be taken democratically and politically, within the constitutional framework.
- At present, however, it always remains ultimately subject to a “technical decision” (potentially taken by an international tribunal) about whether India has breached its obligations under an international intellectual property rights treaty regime.
- What needs to be done is to reshape that regime to make it more democratic, an effort that, by its very nature, cannot be undertaken by a single country.
- The future framework in India should be that The focus on democracy is particularly important with respect to a third issue: the increasing role of technology in our daily lives.
- This debate has come to the fore recently, with the long-running conflict over Aadhaar, and the draft DNA Profiling Bill.
- The relationship between technology and human freedoms will be vital in the future.
- It is therefore particularly interesting that through the evolving concept of “technological sovereignty”, DiEM25 has drawn a specific link between technology and democracy, which can help us think through contemporary issues such as platform monopolies, the ubiquity of AI in public decision-making (including on public welfare), etc.

Way forward:

- U.S. politician Bernie Sanders called for a “progressive international”: “an international progressive movement that mobilizes behind a vision of shared prosperity, security and dignity for all people, and that addresses the massive global inequality. That exists, not only in wealth but in political power.”
- Movements such as DiEM25, which have sprung up in various parts of the world, serve as potential blueprints and models for what a “progressive international” may look like.
- It is a conversation that progressive movements in India must take heed of, and engage with if we are to adequately address the transnational problems that face us today.

Dire strait: on Russia-Ukraine sea clash

Introduction:

- Russia's capture of three Ukrainian naval ships and over 20 crew members in the disputed Azov Sea has refocused international attention on the conflict on Europe's eastern corridors and Azov sea.
- The incident has drawn strong criticism of Russia by the United States and its allies and has fueled fears of wider fighting in the region.
- It's part of the long-simmering conflict between the two countries, in which Russia annexed Ukraine's Crimean Peninsula in 2014 and supported separatists in Ukraine's east with clandestine dispatches of troops and weapons. That fighting has killed at least 10,000 people since 2014 but eased somewhat with a 2015 truce.

Background:

- Russia has forcibly annexed Ukraine's Crimea Peninsula in 2014, claiming its ethnic Russian majority was under threat from the Ukrainian government.

Immediate crises:

- Tensions escalated rapidly recently when Russia blocked Ukrainian Navy ships from entering the Kerch strait, detained 24 Ukraine sailors and reopened the Kerch Strait to civilian ship traffic.
- Russia claims the detained soldiers include Ukrainian intelligence service members and Ukrainian boats had illegally entered Russia's territorial waters through the Kerch Strait.
- Meanwhile, a Crimean court ordered five of 24 captured Ukrainian sailors to be held in jail for two months for their involvement in the incident.

Ukraine Martial Law:

- Ukraine's parliament voted to approve martial law which gives Ukrainian authorities the power to mobilise citizens with military experience, regulate the media and restrict public rallies in affected areas.

Agreements concerning Azov Sea:

- Under a 2003 agreement, Ukraine and Russia took shared control of the Azov Sea and guaranteed each other's ships open access to it via the Kerch Strait.

- But when Russia annexed Crimea in 2014, it took over both sides of the Kerch Strait and build a bridge connecting Crimea to mainland Russia.
- Russia said the Ukrainian ships were violating its waters and accuses the Ukrainians of failing to inform it that three of its ships were planning to sail through Kerch.
- Moscow has also accused Kiev of planning the recent confrontation as a provocation aimed at convincing Western governments to impose further sanctions on Russia.
- Ukraine is due to hold a presidential poll March 31, 2019 and the very prospect of martial law could help boost support for him as a wartime leader.
- Ukraine said that Russia used a tanker to block access to the Kerch Strait, which under a treaty is shared territory.
- Ukraine is demanding Russia to immediately release the Ukrainian sailors and ships captured in recent confrontation.
- Ukraine received a boost from the international reaction, underscoring both the isolation of Russia from the West over the Ukraine conflict, and the desire to protect the international maritime convention that allows for unimpeded shipping through any strait.

Significance:

- The latest incident coincides with the anniversary of the November 2013 Maidan Square protests in Ukraine demanding integration with Europe, which was the prelude to Russia's invasion of Ukraine's Crimea in 2014.
- If martial law is imposed, it would be the first time since the crisis between Moscow and Kiev began in 2014 that such measures have been taken.
- Controlling passage from the Black Sea through the Kerch Strait into the Sea of Azov is a key element in asserting Russia's broader claim to Crimea.
- The confrontation has raised fears of a wider escalation in a conflict that has killed more than 10,000 people since 2014 and prompted international calls for restraint.
- The tensions over a shared waterway have escalated into a crisis that has dragged in NATO and the United Nations.
- At the United Nations, Russia called a session of the Security Council in an

attempt to force a discussion about what it called Ukrainian violations of Russian territorial waters.

- Ambassador to the United Nations Nikki Haley, on the other hand condemned Russia for its “outrageous violation of sovereign Ukrainian territory.

Sea of Azov:



- It is a sea in Eastern Europe. To the south it is linked by the narrow (about 4 km or 2.5 mi) Strait of Kerch to the Black Sea, and it is sometimes regarded as a northern extension of the Black Sea.
- The sea is bounded in the north and in the west by Ukraine, in the east by Russia.
- The Don and Kuban are the major rivers that flow into it.
- The Sea of Azov is the shallowest sea in the world, with the depth varying between 0.9 and 14 metres.
- The **Kerch Strait is the only connection between the Black Sea and the Sea of Azov**, and the only way to reach two important Ukrainian ports, Mariupol and Berdiansk. Russia has controlled the strait since annexing Crimea in 2014, which has made traffic significantly more difficult for Ukrainian ships.

The law of the sea:

- The UN Convention on the Law of the Sea (UNCLOS) sets out various scenarios that give a state freedom of passage, irrespective of a state's territorial waters.
- All ships, including foreign warships, enjoy the right of "innocent passage" within another state's territorial sea under international law.
- Russia has disputed whether the passage was innocent. The UN law states that a passage is innocent "so long as it is not prejudicial to the peace, good order or security of the coastal state". That includes

Officers IAS Academy, Chennai threat or use of force, exercise or practice with weapons or any act of propaganda affecting the security of the state.

- Under international law, a country would have the right to seize another warship only if the warship was acting in a hostile manner.
- Also under UN conventions there is a requirement under which all ships needs to be given the freedom to travel through a strait from one part of the high seas to another - known as transit passage.
- There are also rules within the UN convention that "ensure that ports which can only be reached by a single route through the strait, as is true of all ports in the Sea of Azov, always remain accessible.

Along the new silk roads

Why in news?

- At the recent Paris peace forum commemorating the end of World War I, the heads of the International Monetary Fund and the World Bank made the case for a more inclusive multilateralism.
- Drawing comparisons between 1914 and today's situations in terms of inequalities, they warned against the temptation of a divisive **globalisation** which could only benefit the wealthiest.
- China's discourse on a new "**connected**" **multilateralism, through the Belt and Road Initiative (BRI)**, is **building upon the same inclusive project** now led by a non-Western and non-democratic superpower.
- There is indeed an ambition to influence the world ,if not directly control it by making the rules on which it functions. This normative determination to achieve a far greater objective has hardly been addressed when analysing China's BRI and its impact.

Belt and road Initiative (BRI)

- The Belt and Road Initiative is a Chinese foreign policy initiative promoted by president Xi Jinping in **2013**.
- **Initially the idea of Silk Road Economic Belt (SREB) and Maritime Silk Road (MSR) was put forward.**
- Subsequently, the two projects together came to be known as 'One Belt One Road' (OBOR) Initiative. Later, it came to be known as Belt and Road Initiative (BRI).

- Aim of BRI: Build a trade, investment, and infrastructure network connecting Asia with Europe and Africa along the ancient trade routes.

Impact of BRI:

- There is more to the BRI than the six economic corridors spanning Asia, Europe and Africa, of which the \$50 billion China-Pakistan Economic Corridor (CPEC) is perhaps the most controversial.
- The BRI is included in the Constitution of an officially socialist China.
- The BRI “shared interest” and “shared growth” hence coexist with Marxism-Leninism and “capitalism with Chinese characteristics” in a country now said to be more trade-friendly than its protectionist American rival, the U.S. Beijing has never been afraid of contradictions in terms and this capacity to ‘Sinicise’ concepts is a signature trait.
- The BRI is a political project and a Chinese one no matter the number of other partners joining the effort and participating to its funding.
- The **BRI indeed develops without any dedicated law, nor is it a comprehensive trade or economic partnership.** It is different from conventional trade agreements that seek to eliminate market access barriers, harmonise regulations and impose preconditions for entry.
- The **institutional setting of the BRI is also rather light.**
- Joint committees are put in place and the existing institutions mobilised from the Shanghai Cooperation Organisation to the Asian Infrastructure Investment Bank (AIIB), which is contributing to the BRI despite the rather distant position of some of its members and India in particular, which the largest recipient of AIIB is funding.
- In this context, China is not challenging the existing institutional set-up or proposing something different than what exists in the Bretton Woods Institutions.
- The **BRI as it stands is not conceived as a tool for economic integration.**
- The RCEP negotiations between the Association of Southeast Asian Nations and six countries is better equipped to deal with market access and integration goals within the Asia-Pacific region.

- However, **with the world trading system passing through turmoil, the possibility of regional trade agreements or amorphous legal devices such as the BRI embracing greater trade liberalisation goals cannot be entirely ruled out.**

Walking the tightrope

Why in news?

- Experts point out that the six-month waiver on sanctions granted by the U.S. to India and seven other countries importing oil from Iran highlights the importance of economic factors in the India-U.S. strategic partnership.
- Further, the exemption also puts the spotlight on the link between economics and strategy.

Background:

- US has granted waivers for Iran oil imports to eight countries namely India, China, Greece, Italy, Turkey, South Korea, Taiwan and Turkey for six months.
- President Donald Trump’s explanation is that he is going slow on sanctions with the intent of avoiding a shock rise in global oil prices.
- Author has observed that US waiver doesn’t mean that US has opened key energy market.
- Both the country would now cooperate on India’s oil and gas needs. In 2017, India imported 8 million barrels of American crude. Until this July it had imported more than 15 million barrels of U.S. crude.
- The sanctions relief for the Chabahar port is motivated by a mix of politics and economics. US sees Chabahar’s utility in development and humanitarian relief work in Afghanistan. The U.S. is also aware that China has a stake in developing Chabahar port and could easily replace India if the latter were unable to maintain its foothold there.

What does the waiver imply?

- Waiver gives India a breathing space of sorts and will help maintain India-U.S. ties on a balance.
- However, crucially, the U.S. has not given any special treatment to India.

Importance of Iran for India:

- **Regional interests:** Both India and Iran could build a strategic partnership focussing on Afghanistan, Central Asia and West Asia.

- International North-South Transport Corridor (INSTC) agreement: Iran along with Russia and some other countries are signatories to the INSTC agreement. INSTC transit routes enable India to bypass a hostile Pakistan by exporting goods via the sea to Russia and northern Europe.
- **Chabahar port:** Chabahar port in southern Iran in a strategic bid to connect to Central Asia through Iran and Afghanistan. Chabahar provides war-torn Afghanistan a crucial link to Indian goods and Iranian oil. In December 2017, India made its first shipment of wheat to Afghanistan via the port.
- **A stronger relationship with Iran could help to counter China.**

Issues between India and Iran:

- **India remains opposed to Iran's alleged efforts to acquire nuclear weapon capability.** A nuclear Iran would disrupt the balance of power across West and Central Asia, with serious consequences for India's economic and strategic interests.
- **India has had a bilateral trade deficit with Iran over many years.** In 2017 it was \$8.5 billion. India's offer to pay for oil in rupees is unattractive to Iran. Tehran does not want to buy enough Indian goods to make acceptance of rupee payment for its oil worthwhile.

Together in an uncertain world

Why in news?

- The European Union recently released its strategy on India after 14 years.
- The new document is sweeping in its scope and lays out a roadmap for strengthening the EU-India partnership, which has been adrift for a while in the absence of a clearly articulated strategy.
- The **2004 EU-India declaration on building a bilateral strategic partnership, which this roadmap replaces, has not had much of a success in reconfiguring the relationship as was expected.**

Background:

- India is one among 10 selected countries with whom EU has strategic partnership, launched in 2004.
- EU constitutes India's largest trading partner, accounting for more than 100

billion euros, in a balance trade relationship.

- The European Investment Bank has opened an office in New Delhi and has committed 1.5 billion euros for the 2004 financial year.
- The Lucknow and Bengaluru metro projects and many solar ventures are supported by the bank.
- There are strong bonds between the peoples of Europe and India, developed through tourism, education exchanges and civil society cooperations.
- The EU has also been an important destination for cross border investments and overseas acquisitions for Indian companies.

New strategy:

- The new strategy underscores a transformative shift in Brussels vis-à-vis India.
- It talks of key focus areas such as the need to conclude a broader Strategic Partnership Agreement, intensifying dialogue on Afghanistan and Central Asia, strengthening technical cooperation on fighting terrorism, and countering radicalisation, violent extremism and terrorist financing.
- More significant from the perspective of the EU, which has been traditionally shy of using its hard power tools, is a recognition of the need to develop defence and security cooperation with India.

Struggle to build a robust partnership:

- Despite sharing a congruence of values and democratic ideals, India and the EU have both struggled to build a partnership that can be instrumental in shaping the geopolitics and geoeconomics of the 21st century.
- **India's relations with individual EU nations have progressed dramatically over the last few years and the EU's focus on India has grown.**
- This is because individual nations of the EU started becoming more pragmatic in their engagement with India; Brussels continued to be big-brotherly in its attitude on political issues and ignorant of the geostrategic imperatives of Indian foreign and security policies.
- **Even as the EU emerged as India's largest trading partner and biggest foreign investor, the relationship**

remained devoid of any strategic content.

- It has now become imperative for the two to give each other a serious look.

Need for the Partnership:

- In this age when U.S. President Donald Trump is upending the global liberal order so dear to the Europeans, and China's rise is challenging the very values which Brussels likes to showcase as the ones underpinning global stability, a substantive engagement with India is a natural corollary.
- There is a new push in Brussels to emerge as a geopolitical actor of some significance

Officers IAS Academy, Chennai and India is a natural partner in many respects.

- At a time when India's horizons are widening beyond South Asia and the Indian Ocean region, Brussels is also being forced to look beyond its periphery.
- As the wider EU political landscape evolves after Brexit, and India seeks to manage the turbulent geopolitics in Eurasia and the Indo-Pacific, both recognise the importance of engaging each other.
- The new India strategy document unveiled by the EU, therefore, comes at an appropriate time when both have to seriously recalibrate their partnership.

General Studies 3

In a spirit of accommodation

Introduction:

- The recent spat between RBI and Centre over various issues like RBI autonomy, independent payment regulator and other issues got resolved to an extent after the RBI board meeting.
- These issues could have been resolved, even before it was made public. But the rise of the issue highlights two important questions: (i) Regarding the relationship between RBI and the Centre (ii) Regarding the relationship between RBI and the board.

Earlier episodes:

- Sec 7 of the RBI Act, in a sense shows the relationship between government and RBI. This section gives the government the right to issue directions to the RBI on public interest.
- The framers of the act had brought it with intention that the provision has to be used from time to time.
- In 1957, during J.L. Nehru Prime Ministership the issue of RBI autonomy came up, Nehru declared that RBI is autonomous, but subjected to the Central Government's direction which is accountable to people for the country's monetary policy.
- The monetary policy measures are never announced without the concurrence of the Finance Minister.
- The recent change in the monetary policy framework setting up the Monetary Policy Committee and giving it full freedom to determine the policy rate is a giant step forward in terms of giving the RBI autonomy.
- Literally, the Finance Minister gets to know the decision only along with the others.

A distinction:

- There is a difference between the autonomy of RBI as a monetary authority and as a regulator.
- In the first case, autonomy has to be full once the mandate is given. In the second case, autonomy is somewhat blurred because the mandate is broad and vague.
- However, coming to the issues that were thrown up in the current spat, these are mostly operational and it would have been

unwise for government to use Section 7 to issue instructions.

- It would have sent out the wrong signals both at home and abroad. It is good that the government has desisted from using Section 7.
- It is important to have continuous and sustained dialogue, and an atmosphere of give and take is much needed.

RBI and board:

- The second issue is about the relationship between the RBI management headed by the Governor and the board.
- 21-member central board of directors: the governor; four deputy governors; two finance ministry representatives (usually the Economic Affairs Secretary and the Financial Services Secretary); ten government-nominated directors to represent.
- The debate arose because of the contentious issues between the government and the RBI being referred to the board.
- The question that has been raised is whether the board as it is constituted today can discuss such issues and compel the Governor to act according to the majority view.
- The board has been given the power of general superintendence and directions to RBI, but over the period of time it has been reduced merely to an advisory body.
- Two things have to be clarified here: (i) In the past bank rates were fixed only after consulting RBI board, but now this scenario has changed.
- (ii) Strictly speaking the board has the powers to discuss and even pass resolutions, which have been done. But given the nature of the board and the interests of the members, it becomes difficult to let the board to take binding decisions.

Way forward:

- It is, however, true that in the case of the Federal Reserve System in the U.S., the board does take decisions with voting if necessary. But then the nature of the board is very different. Section 7 is a mix of things.
- First, it gives powers to the board, and second, it gives powers to the Governor as

well. The way the relationship between the board and the Governor has evolved over time in India is a good one. The board by and large has played an advisory role.

- Against this background, while the Governor can act on his own, he must listen to what the members feel and the sense of the board must be fully reflected in his actions.
- The crux of the problem is that the RBI, the board and the government must understand the limits to which they can push. A spirit of accommodation must prevail.

Breathing space

- There has been a fall in the global oil prices by 30% from \$86 to \$60. This sharp fall has been the result of a dramatic change in mood in the oil market. With the fall in oil price, the rupee has appreciated against the dollar.

Indian crude basket

- It is the weighted average of Dubai and Oman (sour) and Brent (sweet) crude. It's the indicator of the price of crude imports for India and has a bearing on price rise.

Reasons for fall in crude oil prices

- There were concerns regarding supply of oil due to disruptions in arrival of oil from Iran and Venezuela.
- With the US softening its stand on sanctions on Iran, markets were worried about possible oversupply.
- A drop in global demand was expected due to slow growth in major economies like China.
- Higher supply and volatility due to uncertainty about the global economy were two main factors.
- There were fears of the consequences of a trade war between US and China.

Factors influencing crude oil price

- Global demand for oil
- Production raise/cut by major oil producing nations
- Global political environment

Crude oil price and rupee

- India imports more than 80% of its oil requirement and has to pay for it in dollars.
- When the price increases and there is volatility and uncertainty in the market. The refiners in India import more and stock it.

- This creates a demand for dollars and thus weakens the rupee.

Fuel price and inflation

- Prices of goods are determined by their transportation costs. With increase in fuel price, the cost of transportation will increase and in turn result in the increase in prices of goods.
- Thus it causes inflation in the economy.

Benefits of low oil price for India

- The fall in oil price can reduce the current account deficit and fiscal deficit. For every \$10 fall in oil price, India's current account deficit and fiscal deficit improves by 0.5% and 0.1% of GDP respectively.
- It will be relief for the Reserve Bank of India as it need not worry about depreciating rupee and oil induced inflation.
- India can save foreign exchange.
- Foreign investors will turn net investors as investor confidence increases.
- However the fall in prices may not continue for long as the Organisation of the Petroleum Exporting Countries are meeting on December 6th and may cut production to in response to sharp fall in prices. Shale companies are also likely to respond by cutting production. India should make use of the low prices and improve its preparedness for an increase in oil prices.

Soil degradation and solution

What is soil?

- Soil is a surface cover which has lot of nutrients in it and which provides mechanical support to crops, plants and trees and resist biotic and abiotic factors.
- It can be considered as a living entity as it comprises of organic carbon, soil flora and soil fauna.

What is soil degradation?

- Food and Agriculture Organisation (FAO) has defined soil degradation as a change in the soil health status resulting in a diminished capacity of the ecosystem to provide goods and services for its beneficiaries.

Stats on soil degradation

- Globally around one third of land is degraded.
- India has a total geographic area of 330 million hectares, of which 120.7 million hectares is facing soil degradation.

- In India, roughly two thirds of the cultivated land is facing threat of soil degradation.

Kinds of soil degradation process

- Soil erosion
- Wind erosion
- Saline soils
- Acidic soils
- Water logging

Why is soil important?

- Soil is our life support system.
- Soils provide anchorage for roots, hold water and nutrients.
- It act as a filtration system for surface water
- It provides habitat for many insects and other organisms
- Soils can store carbon and help in maintenance of atmospheric gases

Reasons for agrarian crisis

- Fertilizer was started being used in large quantities after the introduction of high yield varieties.
- At present, the fertilizer use in India is 140kg per hectare which is not high but the proportion is skewed. Urea comprises 83% and remaining 17% is only phosphorous and potassium. There is an imbalance in the use of fertilizers.
- This disproportionate use of fertilizers affects the micro flora, micro fauna, ph etc.
- Yield response ratio is reduced because of imbalance in use of fertilizers. Three decades ago, 15kg of food grains could be produced from 1kg of fertilizer but now only 3.5kg of food grains can be produced for 1kg of fertilizer

Major challenges

- We need to prepare for climate change which causes monsoon variability causing extreme weather events.
- The ratio of nitrogen and phosphorus used is not proportionate. It is skewed towards nitrogen. It should be restored to 4:2:1 for nitrogen : phosphorus : potassium.

Solutions

Drip fertigation

- Drip fertigation is a method of fertilizer application in which fertilizer is incorporated within the irrigation water by the drip system. In this method liquid fertilizer as well as water soluble fertilizers are used

Advantages

- Nutrients and water are supplied near the active root zone through fertigation which results in greater absorption by the crops.
- As water and fertilizer are supplied evenly to all the crops through fertigation there is possibility for getting 25-50 per cent higher yield.
- Fertilizer use efficiency through fertigation ranges between 80-90 per cent, which helps to save a minimum of 25 per cent of nutrients.
- By this way, along with less amount of water and saving of fertilizer, time, labour and energy use is also reduced substantially.

Soil Health Card

- Every farmer at an interval of 2 years has been launched in 2015
- Government is implementing Soil Health Management and Soil Health Card Scheme to improve soil health and fertility.

What the card contains

- Contains the status of soils with respect to 12 parameters, namely –
- N, P, K (Macro-nutrients),
- S (Secondary-nutrients), Zn, Fe, Cu, Mn, B (Micro-nutrients)
- pH, EC, OC (Physical Parameters).

Outcomes

- It also provides crop wise fertilizer recommendations.
- Soil Health Card helps farmers to improve productivity by maintaining soil health.
- SHC also promotes the judicious use of the fertilizers thus reducing the cost of cultivation.
- Check the declining fertility of agriculture land
- Enhancing farmers' income.

Organic farming

- Organic Farming is a method of farming system which primarily aimed at cultivating the land by use of organic wastes (crop, animal and farm wastes, and aquatic wastes) and other biological materials for sustainable production.
- This farming system avoids the usage of synthetic fertilizers, pesticides and livestock additives.
- It helps in improving soil health, animal husbandry, water conservation, increasing genetic diversity etc.
- However organic farming is not suitable for all crops and all areas. It can be practiced only in niche areas and crops.

Integrated Nutrient Management

- Integrated Nutrient Management refers to the maintenance of soil fertility and of plant nutrient supply at an optimum level for sustaining the desired productivity through optimization of the benefits from all possible sources of organic, inorganic and biological components in an integrated manner.

Advantages

- Enhances the availability of applied as well as native soil nutrients
- Synchronizes the nutrient demand of the crop with nutrient supply from native and applied sources
- Provides balanced nutrition to crops and minimizes the antagonistic effects resulting from hidden deficiencies and nutrient imbalance.
- Improves and sustains the physical, chemical and biological functioning of soil.
- Minimizes the deterioration of soil, water and ecosystem by promoting carbon sequestration, reducing nutrient losses to ground and surface water bodies and to atmosphere

Solving bad roads and plastic waste problems in one shot

Plastic Man of India

- Dr. Vasudevan is serving as Dean, Thiagarajar College of Engineering, Madurai
- He and his team conducted research at the Centre for Studies on Solid Waste Management (CSSWM)
- He was awarded the Padma Shri in 2018.
- His process was patented in 2006, which involves mixing shredded plastic with hot gravel and adding it to molten asphalt.

Life in plastic

- Globally 8,300 million tonnes of virgin plastics have been produced as of 2017. Of this, around 9% have been recycled and 12 % incinerated. A total of 79 % have found their way into landfills or the natural environment
- Size of India's plastic industry is ₹1,10,000 crore
- 9 million tonnes of plastic waste is generated in India per year

The process

- The plastic waste is first shredded
- It is then mixed with hot gravel

- The mix is then added to molten asphalt
- One tonne of plastic waste is used with nine tonnes of bitumen to lay a kilometre of road

Efforts by government

- Roads Ministry "encourages" the use of waste plastic in National Highways construction, especially on National Highways within a 50 km periphery of urban areas that have a population of 5 lakh or more.
- The Indian Roads Congress has released the standard, IRC: SP: 98: 2013, for application of plastic road technology.
- In 2015, the Union government issued guidelines on plastic use with hot mixes for bitumen roads around urban areas. In case of non-availability of waste plastic, the road developer would have to seek approval from the Ministry of Road Transport and Highways for bitumen-only roads.

Advantages of using plastics in laying roads

- Asphalt roads last for 3 years but roads with plastic have a life of 7 years
- The roads ability to carry weight is enhanced.
- Performance appraisal by the Central Pollution Control Board (CPCB) showed that plastic roads did not develop familiar defects: potholes, rutting, ravelling or edge flaw, even after four years.
- The waterproofing quality ensures that the water doesn't seep down, thus reducing wear and tear.
- Roads with the polymerised mix also don't crack or melt under extreme heat conditions.
- It is one best way by which plastic waste can be removed from the environment
- The roads are also pothole-proof.

Fails to take off

- In Tamilnadu, 16,000 km of plastic roads were laid until 2014. Roads are constructed using waste plastic in Himachal Pradesh, Madhya Pradesh, Kerala and Meghalaya. On the other hand, there has been just pilot demonstration in New Delhi.
- So far no National Highway has been constructed using waste plastic and no target has been set for it during 2017-18.
- The road contractors show resistance to this move citing that they would lose revenue as plastic roads would last for longer duration.
- Shredded plastic is not easily available.

Way forward

- The rules should be enforced properly so that plastic waste is used in laying roads.
- There should be an incentive scheme that will make people segregate their plastic waste
- Plastic cannot be banned completely as it would affect the common people. Instead there is we need a garbage culture and proper collection system in local bodies. Collect back system is mandated in the plastic waste management rules, 2016.

The Plastic Waste Management Rules, 2016

- Increase minimum thickness of plastic carry bags from 40 to 50 microns and stipulate minimum thickness of 50 micron for plastic sheets also to facilitate collection and recycle of plastic waste,
- Expand the jurisdiction of applicability from the municipal area to rural areas, because plastic has reached rural areas also;
- To bring in the responsibilities of producers and generators, both in plastic waste management system and to introduce collect back system of plastic waste by the producers/brand owners, as per extended producers' responsibility;
- To introduce collection of plastic waste management fee through pre-registration of the producers, importers of plastic carry bags/multilayered packaging and vendors selling the same for establishing the waste management system;
- To promote use of plastic waste for road construction as per Indian Road Congress guidelines or energy recovery, or waste to oil etc. for gainful utilization of waste and also address the waste disposal issue; to entrust more responsibility on waste generators, namely payment of user charge as prescribed by local authority, collection and handing over of waste by the institutional generator, event organizers.

Lancet Countdown 2018

Why in news?

- Lancet has released the Lancet Countdown Report 2018 on health and climate change.
- It was prepared jointly with the public Health Foundation of India
- The findings of the report is a reminder to countries around the globe that enough is not being done to cut down greenhouse gas emissions.

Findings of the report

- The average length of heat waves in India ranged from 3-4 days compared to the global average of 0.8-1.8 days for the period between 2014 and 2017
- Indians were exposed to almost 60 million heat wave exposure events in 2016 which is an increase of about 40 million compared to 2012
- India is amongst the countries which might experience high social and economic costs from climate change
- Almost 153 billion hours of labour were lost globally in 2017 due to heat, an increase of 62 billion hours from the year 2000.
- The number of hours of labour lost also increased between 2000 and 2017 across India. In agriculture sector, it rose to about 60,000 million hours in 2017, from about 40,000 million hours in 2000. Overall, across sectors India lost almost 75,000 million hours of labour in 2017, an increase from about 43,000 million hours in 2000.
- Compared to the industrial and service sectors the agriculture sector was considered more vulnerable because workers there were more likely to be exposed to heat. This is significant as agriculture employs almost half of the population and contributes 18% to the GDP
- A recent World Bank report on South Asia's hotspots predicted a 2.8% erosion of the country's GDP by 2050, accompanied by a fall in living standards due to changes in temperature, rainfall and precipitation patterns.
- "Heat hot-spots" should be identified through appropriate tracking of meteorological data. Local Heat Action Plans should be developed and implemented and it should target the most vulnerable groups
- It urges a review of existing occupational health standards, labour laws and sectoral regulations for worker safety in relation to climatic conditions.
- The reports highlights the importance of funds for adaptation. About 99% of losses from climate related events in low income countries were not insured.
- The reports warns that the rising temperatures will enable the dengue virus and malaria to spread farther and faster.

Steps to be taken by India

Ten years after the Mumbai attack Ten years after the Mumbai attack

Introduction:

- Ten years ago on 26-11-2008, terrorist carried out one of the most monstrous of terror attacks harmful anywhere in the world. The 26/11 Mumbai terror attack, named after the date in 2008 when the attack took place, is in some respects comparable to the September 11, 2001 terror attacks in the U.S.

Countries that attacked on the same day:

- The attacks carried out in different corners of the world by al-Qaeda and its affiliates, the Islamic State, al-Shabaab, and similar terror outfits, are very different from those witnessed in the previous century.
- The tactics employed may vary, but the objective is common, viz. achieving mass casualties and widespread destruction.

Was it planned?

- Mumbai terror attack was not based on a sudden impulse or whim. Several years of planning and preparation had preceded the attack.
- The degree of involvement of the Pakistani deep state in the planning and preparation of the attack is evident from many aspects that have come to light subsequently.
- The involvement of the Pakistani Special Forces in preparing the 10-member fidayeen group was confirmed by one of the conspirators, Abu Hamza, arrested subsequent to the 26/11 terror attack.
- The training regimen dictated by the Pakistani Special Forces involved psychological indoctrination by highlighting atrocities on Muslims in India and other parts of the globe.

Who were the targets?

- The targets were carefully chosen after having been under military observation previously by Headley for maximum impact, viz. the Taj and Oberoi Hotels, Chhatrapati Shivaji Maharaj Terminus, the Jewish centre at Nariman House, and the Leopold Cafe, since these places were frequented by Europeans, Indians and Jews.

Horror over four days:

- The Mumbai terror attack went on for nearly four days, from the evening of November 26 to the morning of November 29. Seldom has a terrorist incident lasted

- India should make more ambitious plans to cut down on carbon emissions.
- It should reduce the mix of coal based energy sources and shift to renewable energy. Solar photovoltaics should be pushed and a national policy should be framed supporting renewable energy.
- Fossil fuels based transport should be gradually reduced and we need to shift to electric vehicles. Electric vehicles also help improve air quality. Air pollution in India caused premature death of an estimated half a million people in India in 2015.
- India should be prepared for catastrophes and plan to provide relief and rehabilitation as part of its adaptation.
- The government can seek climate funds under the Paris Agreement if it can establish that disasters such as Kerala floods and Gaja cyclone are linked to climate change. The claim should be made along with a perspective plan which identifies the vulnerable regions and communities and provides for a transparent fund utilization system.

Heatwaves

- A Heat Wave is a period of abnormally high temperatures, more than the normal maximum temperature that occurs during the summer season in the North-Western parts of India.
- Heat Wave need not be considered till maximum temperature of a station reaches atleast 40°C for Plains and atleast 30°C for Hilly regions

Health Impacts of Heat Waves

- Heatwaves are associated with dehydration, heat cramps, heat exhaustion, increased rates of heat stress and heat stroke, worsening heart failure and acute kidney injury from dehydration.
- Children, the elderly and those with pre-existing morbidities are particularly vulnerable.
- The signs and symptoms are as follows:
- Heat Cramps: Edema (swelling) and Syncope (Fainting) generally accompanied by fever below 39°C i.e. 102°F.
- Heat Exhaustion: Fatigue, weakness, dizziness, headache, nausea, vomiting, muscle cramps and sweating.
- Heat Stroke: Body temperatures of 40°C i.e. 104°F or more along with delirium, seizures or coma. This is a potential fatal condition

this length of time, since the Munich Olympics massacre in 1972.

- The Pakistani state was only known to Harbour terrorist groups like the LeT and the JeM, and use terror as an instrumentality to create problems for India.

Streamlining security:

- In the wake of the terror attack, several steps were initiated to streamline the security set-up.
- Coastal security was given high priority, and it is with the Navy/Coast Guard/marine police.
- A specialised agency to deal with terrorist offences, the National Investigation Agency, was set up and has been functioning from January 2009.
- The National Intelligence Grid (NATGRID) has been constituted to create an appropriate database of security related information. Four new operational hubs for the NSG have been created to ensure rapid response to terror attacks.
- The Multi Agency Centre, which functions under the Intelligence Bureau, was further strengthened and its activities expanded.
- The Navy constituted a Joint Operations Centre to keep vigil over India's extended coastline.

Security scan:AVRO

What is AVRO?

- Avro is a British transport aircraft. Its designs include the Avro 504, used as a trainer in the First World War, the Avro Lancaster, one of the pre-eminent bombers of the Second World War, and the delta wing Avro Vulcan, a stalwart of the Cold War.

Disadvantages in AVRO:

- AVRO does not have the capable of flying more than 25000 feet
- The capacity is exactly 50 people.
- It does not have ramp loading which is required for modern transport.
- Spare parts for the aircraft are no longer available, so the plan is to fit in a modern engine and new sensors that will give it extended life, If even engines are changed, we cannot achieve better performance and moreover there will be enormous amount of wastage of resources. So there should be replacement of AVRO.

Who came forward?

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- Two foreign firms have written to the Defence Ministry expressing their interest to be part of the nearly \$2.5 billion Avro replacement programme even though they had stayed away from the original bidding process.
- 2 companies have come forward and made proposals to replace AVRO approved in 2012. The proposal to replace the AVRO HS748 fleet — the planes have been made in India since 1960s — has been in the works for six years, and procurement of 56 replacement aircraft is in the final stages. However, HAL (Hindustan Aeronautics Ltd) believes that the Avro fleet still has a lot of life left and can easily be upgraded with engines and avionics serve for longer.
- Airbus proposed to make c-295 partnership with TATA.
- HS 748 AVRO joined IAF in 60s.IAF got the nod to procure 56 new TATA transport aircraft.
- The purchase contract with Tata-Airbus was expanded from the original requirement of 56 aircraft to include a requirement of the coast guard for six a Multi Mission Maritime Aircraft (MMA) and a final call on the deal will be taken by the defence minister led Defence Acquisition Council (DAC).

Wage drag: on ILO's Global Wage Report

Introduction:

- According to Global Wage Report 2018-19 published by International Labour Organization (ILO), real wages grew just 1.8% globally from 2017.
- On average, women are paid 34% less than men in India. Globally, on average, hourly wages of women are 16% less than those of men.
- The findings are based on data from 136 countries.

Hit in real wage growth:

- Real wages are wages adjusted to inflation.
- The report observed that global wage growth had slid from 4.8% (2017) to 3.5% (2018).
- In advanced economies (G20), real wage growth declined from 0.9% in 2016 to 0.4% in 2017, meaning near stagnation.

need not only jobs, but wage expansion that is robust and equitable.

- Emerging and developing economies were also not spared where the wage growth dipped from 4.9% in 2016 to 4.3% in 2017.

Reasons behind the fall in wage growth:

- Though worldwide the economies have been recovering and there has been reports of labour shortage which should actually lead to wage growth.
- But we see a reverse situation, mainly because the high growth witnessed in 2017 was mainly due to increased investment and not private consumption.
- The wages were so inadequate that even the basic needs of the workers could not be satisfied.
- The increased competition in labour sector due to globalisation worldwide has decreased the bargaining power of the workers.
- This situation has led to decoupling of the wages and their productivity.
- Weakening share of labour compensation in GDP is a cause of worry because without demand from private consumption the worldwide economy may face standstill.

Way forward:

- The protectionist attitude of the West and tight immigrant policy has to go away to enable free labour movement.
- For India's policymakers, the message is clear: to reap the demographic dividend we

Trail of destruction

- Tamilnadu faced the wrath of cyclone Gaja (severe cyclonic storm) which made landfall on November 16th between Nagapattinam and Vedaranniyam. The districts affected most severely include Pudukottai, Thanjavur, Tiruvarur and Nagapattinam.

Post disaster relief

- The first priority of the government would be to restore administrative systems and service delivery in affected areas. Physical access, electricity and public health facilities will help to carry out relief work effectively.
- Solar power can be used to run public facilities at night time.
- Temporary relief should be provided to farmers from loan repayment and a fair compensation should be prepared.
- Farmers need to be compensated under the Pradhan Mantri Fasal Bima Yojana for food crops, oil seeds and annual horticulture crops. Those crops not covered under the scheme should also be compensated.
- Citizens have been contributing money and material to aid relief work.

KURUKSHETR- RURAL HEALTH (November 2018)

Introduction

- The ultimate goal of a great nation would be one where the rural and urban divide has reduced to a thin line, with access to clean energy ,safe water, health care to all, responsive governance and a globally recognized economy by the way of additional infrastructure ,human resources etc.
- Towards fulfilling this objective, India has taken a giant leap towards providing accessible and affordable healthcare to the common man with the launch of Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY).
- When fully implemented, PMJAY will become the world's largest fully government financed health protection scheme targeting more than 50 crore beneficiaries while providing cashless and paperless access to services for the beneficiary at the point of service.
- It is a visionary step towards the agenda of achieving Universal Health Coverage (UHC).
- The government now needs to play the role of a powerful catalyst by creating an enabling ecosystem which draws investments from both domestic and international players to achieve the goal of UHC.

Ayushman Bharat

India's road to Universal Health Coverage

- Ayushman Bharat comprises of two pillars.
- When the Government of India announced Ayushman Bharat in the union budget of 2018-19 , it intended to promote healthcare by launching:
 1. The health and wellness centres (H&WCs) on 14th April,2018
 2. PM Jan Arogya Yojana (PMJAY) on 23rd September,2018
- Health and wellness centres (HWCs) are the transformed first two tiers of the public health system i.e. the sub health centres (SHC) and the primary health centres (PHC).
- Pradhan mantri Jan Arogya Abhiyan (PMJAY) is for the provision of health coverage of up to Rs. 500,000 /family for

nearly 10.34 crore households to obtain secondary and tertiary in-patient care.

Data:

- As per the latest report of the Registrar General of India, sample registration system (RGI-SRS),
 1. Maternal mortality rate (MMR) of India has shown a decline from 167/100000 live births in 2011-13 to 130/100000 live births in 2014-16.
 2. India has achieved the millennium development goal (MDG) for MMR.
 3. Infant mortality rate (IMR): the rate of decline increased from 2.5% in 2013-14 to 8.1% in 2015-16.
 4. The under-five mortality rate (U5MR): rate of decline increased from 8.2% in 2013-14 to 9.3% in 2015-16.
- At the current rate of decline India will achieve the sustainable development goal (SDG) target of U5MR and MMR by 2023 itself.
- The country has achieved the MDG 6 which was to reverse the incidence of Malaria, TB and HIV/AIDS.

Registrar General of India:

- It was founded in 1961 by the Ministry of Home Affairs.
- It conducts and analyses the results of the demographic surveys of India including Census of India and Linguistic Survey of India.

Challenges:

- Despite these outcomes, some challenges persist viz, the unfinished MDG agenda, of elimination of TB, eradication of malaria, Kala azar.
- Inequality in access to services
- Forced care seeking in private sector leading to high out of pocket expenses (OOPE).
- The World Bank estimates that 10% of medical conditions require more complex treatment in hospitals or specialist care.
- 95.3% of our private health facilities are small facilities that employ less than five workers.
- Small private provides paper based prescriptions and it is virtually impossible to monitor or regulate the quality of such care provision.

- People besides using their income and savings, borrow money or sell their assets to meet their health care need, thereby pushing 4.6% of the population below the poverty line.

Solution:

- The delivery of Comprehensive Primary Health Care (CPHC) through HWCs therefore becomes a necessity.
- The transformation of HWC requires action on many fronts and work streams like
 1. Infrastructure
 2. Community mobilisation and health promotion
 3. Medicines and expanding diagnostics
 4. Point of care and new technologies,
 5. Encouraging changes in lifestyle or physical activity, including yoga, healthy diet and avoidance of tobacco and alcohol.
 6. Expanded service delivery for non-communicable diseases, palliative and rehabilitative care, oral, eye and ear-nose-throat (ENT) care, mental health and first level care for emergencies and trauma.
 7. Continuum of care-telehealth /referral
 8. Financing/provider payment reforms
 9. Mother and child health services

The other component of Ayushman Bharat

- it ensures Universal Health Coverage
- It will ensure the continuum of care from AB-HWCs and substantial reduction in Out of pocket expenditure (OOPE) on catastrophic healthcare.
- This will avoid overcrowding in tertiary facilities and makes services equitable, affordable and accessible.
- It is an entitlement-based scheme.
- This scheme covers poor and vulnerable families based on deprivation and occupation criteria as per socio-economic and caste census (SECC) data.
- The AB-PMJAY is being managed by national health agency (NHA) .
- The implementation of this scheme is that 33 states /UTs have signed MoUs or agreed to sign MoU with the centre. Remaining are Odisha , Telangana and Delhi and out of this 26 states have started with the implementation

National health agency (NHA)

- It was Established as a society on 11th May,2018
- It is registered under the society registration act 1860.

- The state governments are expected to similarly set up state health agencies (SHA) to implement PMJAY.
- The agency will provide overall vision and stewardship for design, implementation and management of PMJAY, in alliance with state government, civil society, financial and insurance agencies ,academia, think tanks ,national international organisations and other stakeholders.

Way forward

- The current legal framework for regulation of medical services is under the clinical establishment (registration and regulation) Act, 2010, Drugs and cosmetics Act, 1940 and Medical council of India.
- Ministry of health and family welfare is promoting eHealth or digital health i.e. the use of information and communication technology initiatives in the direction of "reaching services to citizenship.
- The payment-based accountability should work in sync with the legislation-based enforcement of accountability.
- The health sector is amongst the largest and fastest growing sectors, expected to reach US\$280 billion by 2020.
- The scheme will also help in enriching the database of hospitals, registered with the Registry of hospitals in network of insurance (ROHINI) system and the human capital captured under the national health resource repository (NHRR) project.
- The scheme will have a multiplier impact on the health care and allied sector like pharmaceutical, diagnostics, medical services and overall Indian economy.

Building clean and healthy villages

Introduction:

- If the villages are not clean then the development of the villages will remain incomplete, as a result of which country's development too stands incomplete.
- An initiative that marked a change in the quality of life of rural people is the Swachh Bharat Mission.
- It works to make human life cleaner, healthier and dignified as accorded into the Prime minister as the national priority to cleanliness.

Clean village: healthy life

- Studies have revealed that in every house of open defecation free village, about 50,000 rupees are being saved because the

family is saving on the expenditure on treatment on various diseases.

- The savings helps to acquire new amenities and facilities ,to provide better education to the children and to improve their standard of living.
 - The rural development ministry has taken a number of measures through its ambitious scheme MGNREGA.
 - Mahatma Gandhi National Rural Employment Guarantee Act(MGNREGA), is an Indian labour law and social security measure that aims to
1. Guarantee the 'right to work'.
 2. Enhance livelihood security to the adults in rural areas by providing at least 100 days of wage employment in a financial year.
- The ministry is engaged in construction of individual household toilets and soakage pits,
 - Vermicomposting pits, recharge pits, toilets in schools and Anganwadis, village drains, construction of water stabilization ponds and water conservation works to make grey water(dirty) useful.
 - This has been possible with the involvement of Panchayats and self-help groups (SHGs)in the villages.

Conclusion:

- MGNREGA the country's most ambitious scheme is being implemented by the Ministry of rural development thereby proving its importance and awareness in true sense.

Poshan Abhiyan: towards holistic nutrition

- Acknowledging malnourishment as a major challenge, POSHAN Abhiyan was launched by the PM with the aim of improving nutritional outcomes for children, pregnant women, and lactating mothers.

Pillars of the Abhiyan

1. Programmatic convergence

- Agriculture plays an important role in enabling the availability of nutritious food.
- women play a key role in providing good care
- sanitation improves health

2. Services

- Focusing on the first 1000 days of a child's life by providing health and nutrition services in an intensive manner.

- counselling families about the importance of feeding practices
- Healthcare measures including birth spacing, delaying age of marriage, exclusive breastfeeding for 6 months and immunization.
- Coordination and motivation among the different frontline workers, Accredited social health activists (ASHA), and auxiliary nurse midwife (ANM) and Anganwadi workers.

3. Delivery models Examples

- In Chhattisgarh, Suposhan volunteers were assigned to look after a group of undernourished children at the community level.
- In Bihar, female volunteers take the responsibility of counselling and linking families with health-related services.
- In Maharashtra the interaction between health and nutrition functionaries was institutionalized for addressing issue of under nutrition in children through the child development centres.

From the data:

- A 2017 report published by **save the children** indicates that over two third of the world's stunted children live in 10 countries and among the list India is ranked at number 1 with an estimated 48.2 million stunted children
- The World Bank estimates, reducing stunting in the country can raise the GDP of India by 4-11%.

Way forward

- The month of September was celebrated as the national nutrition month (Rashtriya Poshan mash) to take the message of nutrition to the last household.
- Platforms such as the monthly village health and nutrition days need to be utilised for providing counselling services to mothers and children.
- There is a need to promote the ownership of nutrition initiatives by Panchayati Raj institutions and urban local bodies.
- **Anaemia Mukd Bharat** focuses on:
 1. Testing and treatment of anaemia in school going adolescents and pregnant
 2. The web portal anaemiamukt Bharat@info will monitor its mechanism
- **Home based young child care (HBYC)** has an objective to reduce child mortality and morbidity by improving nutrition status, growth and early childhood

development through structured and focused home visits by ASHAs with the support of Anganwadi workers (AWWs).

- ASHA will ensure exclusive breastfeeding till 6 months of life, adequate complementary feeding after 6 months, iron and folic acid supplementation, full immunization of children, appropriate use of ORS, appropriate hand washing practices and age appropriate playing and communication for children during each home visit.

About Accredited Social Health Activist (ASHA)

Key components of healthcare delivery in rural India

- One of the key components of the National Rural Health Mission is to provide every village in the country with a trained female community health activist ASHA or Accredited Social Health Activist who is an interface between the community and the public health system.
- ASHA must primarily be a literate woman resident of the village married/ widowed/ divorced, in the age group of 25 to 45 years, qualified up to 10th class, which may be relaxed if no person with this qualification is available.
- ASHA is chosen through process of selection by community groups, self-help groups, Anganwadis, the Block and district Nodal officer, the village Health Committee and the Gram Sabha.
- They receive performance-based incentives for promoting Reproductive & Child Health (RCH) \ services available at the Anganwadi/sub-centre/primary health centers, Ante Natal Check-up (ANC), Post Natal Check-up, supplementary nutrition, sanitation, prevention of Reproductive Tract Infection/Sexually Transmitted Infections (RTIs/STIs) and other services being provided by the government.
- She acts as a depot for provisions like Oral Rehydration Therapy (ORS), Iron Folic Acid Tablet (IFA), chloroquine, Disposable Delivery Kits (DDK), Oral Pills & Condoms, etc.

National health Profile 2018

- The National Health Profile-2018 is prepared by the Central Bureau of Health

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- It covers demographic, socio-economic, health status and health finance indicators, along with comprehensive information on health infrastructure and human resources in health.
- CBHI has been publishing National Health Profile every year since 2005. This is the 12th edition.

Key points of the report:

- This year's budget allocated only 1.3 % of the GDP which is too low as compared to global average of 6%.
- The national MMR stands at a rate of 167 per 1000000 births.
- 1 allopathic government doctor in India, on an average, attends to a population of 11,082 compared to WHO's recommendation- doctor-population ratio of 1:1,000.
- Rs.3 per day is spent on an average Indian's healthcare.
- Rabies (it is a virus that is usually spread by the bite or scratch of an animal) remains most lethal communicable disease with the highest figure of deaths reported from West Bengal and Karnataka.
- The cases of Influenza A H1N1 (Swine flu) witnessed a 21-time increase compared to 2016.
- Japanese Encephalitis (JE), a kind of an infection of the brain caused by the JE virus, continues to claim lives with 12 % mortality rate.
- The figure of dengue cases also saw a rise as the cases went up from 1,29,166 in 2016 to 1,57,996 in 2017.

National Health Resource Repository (NHRR)

- It is country's first ever It enabled national healthcare facility and a registry of authentic and updated geo-spatial data of all public & private healthcare including Railways, ESIC, Defense and Petroleum healthcare establishments along with the Central Bureau of Health Intelligence (CBHI).
- The vision of the NHRR project is to strengthen evidence-based decision making and develop a platform for citizen and provider-centric services for over 25 lakh healthcare establishments.

- NHRR will cohesively work with Ayushman Bharat - National Health Protection Mission (AB-NHPM) and Central TB Division (CTD).
- The project involves conducting a national census for hospitals, doctors, clinics, blood banks, pharmacies; diagnostic labs etc. and enable Public-Private Partnerships.

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- Post graduate institute of medical education and research (PGIMER), Chandigarh.
- A coronary care unit in Siliguri District Hospital, Siliguri, West Bengal.
- Bankura Sammilani Hospital, Bankura, West Bengal.
- The latest to join is Medanta Medicity Hospital who launched their Medanta E clinics Website for telecommunication.

Tele-Medicine: A new healthcare opportunity

Introduction

- Rural India lacks proper infrastructure required for setting up a well facilitated hospital. Even if they have money to pay but lack doctors and hospitals.
- 210 out of 550 million internet users today are rural users which make tele- medicine one of the strongest solutions for India's poor public health infrastructure at rural and small city level.

What tele-medicine does?

- With its use any Indian citizen irrespective of his location can have the access to the best healthcare opinion and treatment as anyone else in the country.

Current status of telemedicine

- Accredited social health activists (ASHA's) who are a part of the National rural health mission (NRHM) are using basic tele-health programs for pregnant women and children.
- National e Health Authority (NeHA) and digital India is using e-health means and programs in their campaigns.
- Ministry of health and family welfare has undertaken various initiatives using information and communication technology (ICT) for improving efficiency of the public health care system.

The telemedicine programs find their support from the following:

- Department of Information technology (DIT)
- Indian space research organization
- NEC telemedicine program for north eastern states
- State governments

Hospitals using facilities under tele-medicine

- Apollo hospitals
- All India institutes of medical sciences (AIIMS), New Delhi.
- Sanjay Gandhi Post graduate institute of medical sciences (SGPGIMS), Lucknow.

A tele-medicine delivery is a 3- stakeholder process

- **Stakeholder 1:** the hospitals and doctors generally sitting in big city and offering services to patients via tele medicine
- **Stakeholder 2:** the technology provider or tele medicine facilitator
- **Stakeholder 3:** the patients or a small clinic or a primary care centre in a rural area.

Major Challenges

- The biggest challenge is the stakeholder 2 as there is a lack of independent facilitators.
- Poor data communication infrastructure
- Increased power-cuts in rural areas and even lack of electricity
- Large sections of illiterate population depending on government hospitals.
- Lack of high speed bandwidth in India aggravates the problem.
- Cost associated with advanced technology.

Is it comparable to face to face connect?

- Yes, because, It facilitates:-
1. Taking real time vitals such as 12 channels ECG, Electronic stethoscope, Pulse oximeter, height and weight, blood pressure, Glucose level for diabetes and other chronic patients.
 2. ENT camera
 3. Fetal Doppler for pregnant women.
 4. Optical reader for eye patients.
 5. Spirometer
 6. The telemedicine software keeps track of the prescription.
 7. Some services even use Artificial intelligence to predict patient's health.

Conclusion:

- Tele medicine is used across the world as one of the most powerful public health tools. It is practiced in underdeveloped countries of Africa such as Zambia (during EBOLA outbreak).
- From the rural health perspective, telemedicine can add much larger value as

compared to any other country in India as it has the best doctors in world and best technology innovators.

Mobile Connectivity for rural health

Introduction

- Today's rural India is a curious mix of old beliefs and brand-new aspirations which is more pronounced in the health sector.

Challenges

- The old traditions and stigmas attached to the age old diseases
- Fear of social pressure
- Less or no understanding of a new idea
- The fear of the unknown immunizations.
- Lack of information

Mobile, the great enabler

- The communication access helps the two way communication between the service provider and the receiver.
- It has increased efficacy and effectiveness of ASHAs, Anganwadi workers and ANMs (Auxiliary Nurses and Midwifery) in covering a lot more houses in a day than she used to do in pre mobile days.
- WhatsApp groups help communicate with a group of women spreading awareness about the new government schemes.
- The app called **mSakhi** helps to be in constant touch with the supervisors, track and report health related data.
- Similarly **Mera Aspatal App** seeks patient feedback to create a more responsive and patient driven healthcare service.
- **Mission Indradhanush** (launched in 2016) tracks the immunization of children and helps parents in carrying out timely and complete immunization programme.
- **Pradhan mantri surakshit Matritva Abhiyaan App** is an avenue for registration of private sector/voluntary sector/retired obstetricians, radiologists and physicians willing to provide free antenatal services to pregnant women at Government Health Facilities on 9th of every month.
- Similarly India fights Dengue, NHP Swasth Bharat, NHP directory service, has been the first port of call for generating awareness among people.
- Another extensive intervention is **Kilkari** initiative. It is a 72 message series delivered from pregnancy onwards to systematically prepare the women and her

Officers IAS Academy, Chennai family about the pregnancy issues, child birth and child care.

Conclusion:

- Communications interventions are needed at three stages to turn an initiative into success.
1. The first stage is creating awareness.
 2. The second stage is reinforcement through providing actionable information
 3. The third stage is seeking feedback and re orienting effective penetration of services.

Financing rural health care

Introduction

- As per the Indian constitutional assignments, there is a strong and positive association of public expenditure on health.

Budget 2018-19 and Ayushman Bharat programme:

- The budget earmarked Rs 1,200 crore to finance 1.5 lakh health and wellness centres by bringing health care system closer to the homes of the needy.
- The funds allocated for Ayushman Bharat for 2018-19 is Rs 2000 crores. This is an entitlement based scheme where poor and vulnerable people who belong to sociology economic caste census (SECC) deprivation criteria are covered.
- In addition the existing beneficiaries of Rastriya swasthya Bima Yojana and senior citizens health insurance scheme who do not figure in the SECC database are also entitled to benefits under the scheme.
- The identified beneficiaries are entitled for health insurance coverage of Rs 500,000 per family per year and for hospitalization in empanelled hospitals anywhere in the country.

Conclusion

- Efficient and effective health services financing within the fiscal responsibility framework is the need of the hour for ensuring "health for all".

Health care for India's remote tribes

Introduction

- According to census 2011 the tribes of India constitute 8.6% of its total population and at present there are 705 scheduled Tribes (ST) groups and among them 75 are considered as particularly vulnerable tribal group (PVTG) and each group vastly

different from the other from ethnic, cultural and geographical stand points.

- By proportion population of states in the North east has the greatest concentration of STs.
- **PVTG:** According to the **Dhebar Commission** (1960-1961) within the Scheduled Tribes there existed an inequality in the rate of development. Therefore the 4th Five Year Plan introduced a sub-category within Scheduled Tribes for groups considered to be at lower level of development. This sub-category was named "Primitive tribal group" which got renamed to "Particularly vulnerable tribal group" in 2006.

Issues they face

1. Illiteracy
2. Tough physical environments
3. Malnutrition
4. Inadequate access to potable water
5. Lack of proper hygiene and sanitation make them more vulnerable to diseases

Reason that compounds the issue

- Lack of awareness
- Their belief system and indigenous practices
- Their distance from medical facilities
- The lack of all-weather roads
- Insensitive and discriminatory behaviour by staff at medical facilities
- Financial constraints.
- Cultural practices such as high level of consanguineous marriages among the tribes lead to hereditary diseases such as sickle cell anaemia, **G6PD** (A genetic disorder causing red blood cells to break down in response to certain medication, infections or other stresses) and thalassemia.
- The other widely prevalent health problems include communicable and tropical diseases like malaria, parasitic diseases, tropical diseases and tuberculosis.
- **Kyasanur forest disease (KFD)** is also reported to be a looming threat to forest tribes with occasional deaths.
- **KFD:**
 1. Kyasanur Forest disease (KFD) is caused by Kyasanur Forest disease virus (KFDV)

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2. it was isolated from a sick monkey from the Kyasanur Forest in Karnataka
3. Hard ticks (*Hemaphysalis spinigera*) are the reservoir of KFD virus and infect Rodents, shrews, and monkeys.
4. Humans get affected by the bite of the tick or by coming in contact with the infected animal.

Way forward

- ICMR -National institute of research in tribal health located at Jabalpur demonstrated designing of theatre based communication strategy using school students as agent of change to generate awareness and control of diseases.
- As tribal population find it difficult to navigate through complexities of medical facilities, health care providers such as ASHA, AWW, ANM may become the link between the health care facilities and tribal communities.
- There is a need to improve the road connectivity.
- During the training of the health care staff, the issues should be addressed such as to reduce the discriminatory behavior.
- Mechanism should be worked out for more fund flow in the tribal areas with proper tracking of the fund to reach the targeted population.

Adolescent health

Introduction

- Adolescents that constitute about 21% of Indian population forms a major demographic and economic force facing the challenges like poverty, lack of access to health care services, unsafe environments etc.
- WHO defines an adolescent as any person between the ages 10-19 year. But age is only a simple way to define it; there are many physical and psychological changes that occur during this phase of life.
 1. Early adolescence: 10-14 years
 2. Late adolescence: 15-19 years

Challenges

- **Teenage pregnancy:** about 47% of Indian women are married before the age of 18 years. One fifth of the pregnant girls below 20 years of age have no antenatal checkups.
- **Malnutrition:** about 56% of females and 30% of males in the 15-19 age groups are

anaemic and 2.4% females and 2% males are obese.

- **Violence and risky behaviour:** sexual activity, substance abuse, risky driving and violence cause nearly half of morbidity and mortality.
- Apart from these there are issues of mental depression and suicides.
- Addiction to tobacco and cigarettes.
- No schooling
- Many of the adolescents die prematurely due to various reasons that are either preventable or treatable and many more suffer from chronic illness of health and disability.
- Adolescent girls often lack social support.
- Policies and programs are largely aimed either at children or at women, leaving adolescent girls in the gap.
- Taboos attached to use of sanitary napkins.

Government schemes

- **Kishori Shakti Yojana (KSY):** the scheme was launched in the year 2000 to improve the health and nutrition status of adolescent girls via awareness of health, nutrition, personal hygiene, family welfare and management.
- **Nutrition program for adolescent girls (NPAG)** was launched in 2002-03 for adolescent girls in 51 selected districts to address under nutrition of girls.
- Later both were merged into one with a comprehensive coverage and launched as **Rajiv Gandhi scheme for empowerment of adolescent girls -SABLA .**
- The scheme includes
 1. Making adolescent girls aged 11-18 years self-reliant.
 2. improving their health and nutrition,
 3. awareness on adolescent reproductive and sexual health (ARSH)
 4. Vocational training along with mainstreaming out of school adolescent girls (OOSGS) into formal and non-formal education.
- To organize and mobilize the adolescent girls, the girls were formed into groups called as "**kishori samooh**" who would assemble at the Anganwadi centre (AWC) on regular basis for collective action , counseling and guidance activities.
- **School health programme:** it includes a bi annual health checkups and screening for diseases, deficiency and disability.

- **Rashtriya Bal swasthya karyakram (RBSK):** it covers 4 D's viz defects at birth, deficiencies, diseases, development delays including disability.
- **Balika Samriddhi Yojana:** it aims to change negative family and community attitudes towards the girl child, improve enrollment and retention of girl children in schools and rise the age at marriage of girls.
- **Integrated child protection scheme (ICPS):** Aims to build a protective environment for children in difficult circumstances through government-civil society partnership.
- **Scheme for adolescent girls (SAG):** it is to facilitate, educate and empower adolescent girls focusing on age group of 11-14 years.
- **SAATHIYA** resource kit and Saathiya salah Mobile app:It is a part of RKSK which introduces peer educators .

Way forward:

- Interventions from early childhood.
- Two way interventions on both the immediate environment of family and the wider interventions created by policies, social determinants.
- Programmes should take consideration of similarities and differences between and within the various regions of the country.
- Ensuring equity between these heterogeneous regions and human rights.