

# OFFICERS'

# Pulse

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## Coverage.

The Hindu  
PIB  
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## At a Glance & In Depth.

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



# CURRENT AFFAIRS WEEKLY

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

# News @ a glance

<b>Polity &amp; Social Issues.....3</b>	News about violation of Airspace..... 13
Scraping MCI.....3	India-Russia..... 14
CWC blames IMD .....3	India to gift 3 MiG-21s to Russia..... 14
Is Swachh really a success? .....4	S-400, Kamov deal..... 14
SC, a crusader for women’s rights .....4	USA warns India against signing S-400 missile system deal with Russia..... 14
Bru tribe .....4	Signing of S-400 missile deal ..... 15
Social media giants collaborate with EC.....5	Tashkent Declaration..... 15
Air safety in India .....5	Rohingya Crisis..... 16
e-Box initiative.....6	Bangladesh delays relocation of Rohingya... 16
Mob Leaders will pay: SC.....6	UN urges India not to deport Rohingyas..... 16
Protest against Sabarimala Verdict.....6	SC refuses to stop deportation of Rohingyas..... 17
WHO’s guidelines on Sanitation .....7	<b>Science &amp; Technology..... 18</b>
Digi Yatra Initiative .....7	Oxidative stress & DNA Condensation..... 18
<b>Economy .....8</b>	Colistin resistance in Klebsiella bacteria..... 18
Amul model .....8	Type-2 polio virus contamination..... 18
Loan write-offs & Loan waivers.....8	Nobel Prize for Medicine, Physics, Chemistry, Peace..... 19
India’s Economic Share: A Historical perspective .....8	Mosquito repellent paint..... 20
Repo rate & MPC.....9	MASCOT on Asteroid Ryugu..... 20
IL&FS crisis.....9	<b>Environment..... 22</b>
Fall of rupee fall + Growth of US Economy = Boost of Indian exports ..... 10	Geoparks..... 22
PMI..... 11	Machhli Tiger ..... 22
Single electricity grid..... 11	Indonesia tsunami..... 22
ECB..... 12	Stubble burning ..... 23
MSP For Rabi Crops..... 12	IPCC Climate Warming..... 23
<b>International Relations..... 13</b>	Saving Gir Loins ..... 24
India-Pakistan..... 13	India’s first methanol cooking fuel ..... 24
News about UN Speech..... 13	<b>Culture ..... 25</b>
What is Comprehensive Convention on International Terrorism (CCIT)?..... 13	‘World Peace’ monument..... 25

# News in-depth

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## **The Hindu Editorials..... 26**

In Parliament's court.....	26
The Road to e-vehicles.....	26
The voice that is great within us .....	28
Rescuing IL & FS.....	28
Up in the air-on stubble burning.....	29
Fields of Concern.....	31
The new deal.....	31
The algebra of dissent.....	32
A flight path with obstacles.....	32
THE SCOPE OF CONSTITUTIONAL MORALITY	33
Avoiding the currency basket case.....	34
Eyes on India.....	36

Focus on inflation.....	37
Next step at Gir .....	38
The creamy layer of social justice .....	39
No sweeping change –On Swachh Bharat Mission.....	40
In harmony with Mother Nature.....	41

## **RSTV Corner..... 43**

The Big Picture – On Bank Mergers & Policy Watch - Merger of Banks.....	43
The Pulse - Anti-Dowry Law: Implementation & Concerns .....	43
In Depth - Destination India.....	44
Policy Watch- Smart Fencing of Borders a Pilot Project.....	45
In Depth - The Machine Age: 2025.....	46

# News @ a glance

## Polity & Social Issues

### Scraping MCI

#### What is MCI?

- The Medical Council of India (MCI) was established under the Indian Medical Council Act, 1933.
- It grants recognition of medical qualifications, gives accreditation to medical schools, grants registration to medical practitioners, and monitors medical practice in India.

#### The National Medical Commission Bill, 2017

- Amid allegations of corruption against MCI office bearers and its opaque accreditation process, the Government had presented a bill in parliament to replace the MCI with a National Medical Commission.
- The government claims that the Bill provides for simplification of procedures and is expected to spur rapid growth in the number of Undergraduate (UG) and Post Graduate (PG) seats in the country besides enhancing the governance and quality of medical education.

#### Indian Medical Council (Amendment) Ordinance, 2018

- As the NMC bill is pending in the Parliament, the government has issued the Indian Medical Council (Amendment) Ordinance, 2018, to supersede MCI was promulgated, and the powers of the council have been transferred to a board of governors (BoG).
- The BoG will continue to perform till a council is constituted in line with the provisions of the Act in one year.



#### Condemned by IMA

- The Indian Medical Association (IMA), a national voluntary organisation of Doctors

of Modern Scientific System of Medicine, has condemned the supersession of the MCI claiming that the eminent clinicians appointed to the BoG have little exposure to the day-to-day administration of the MCI.

- The Association has also demanded that the Board should refrain from taking major policy decisions or amendments changing the character of the IMC Act.

### CWC blames IMD

#### What is CWC?

- The Central Water Commission (CWC) is a premier Technical Organisation in the field of water resources functioning under the Ministry of Water Resources, River Development and Ganga Rejuvenation.
- It is charged with the general responsibilities of initiating, coordinating and furthering, in consultation with 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.

#### What is IMD?

- The India Meteorological Department, which was established in 1875, is an agency of the Ministry of Earth Sciences.
- It is the principal agency responsible for meteorological observations, weather forecasting and seismology.

#### Why in news?

- The CWC blamed IMD for the devastating floods in Kerala, as it failed to issue any special warnings in the light of its forecast.
- In August, Chief Minister of Kerala Pinarayi Vijayan also said that the failure on the part of the IMD to provide precise forecast about the intensity of rainfall had resulted in the floods that ravaged the State.

## Is Swachh really a success?

### What is Swachh Bharat Mission?

- Swachh Bharat Abhiyan or Clean India Mission is a nationwide initiative aimed to inspire the public to voluntarily clean public spaces as a service to the nation.
- The most important objective of the mission is to end open defecation forever in all villages by 2 October 2019 – the 150th birth anniversary of Mahatma Gandhi.

### How are villages declared as 'open defecation-free'?

Villages are considered 'open defecation-free':

1. When no faeces are openly visible
2. And every household and public/community institution uses safe technology to dispose of faeces

In the first step, a gram panchayat declares the village to be ODF. Within 3 months of ODF declaration, State/UT conduct verification using different process. ODF sustainability verification, which primarily focuses on toilet usage is also conducted after a period of 270 days.

### Why in News?

- When a village or State is declared ODF, it also means that all households have access to sanitary toilets and all dry latrines have been removed and converted into sanitary toilets.
- However, activists claim that many ODF declared villages are still using dry latrines which are being emptied by manual scavengers, which is a crime under the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.
- Few days back, the Comptroller and Auditor-General found that in Gujarat, which has been declared as ODF, 29% of homes in the sample villages did not have access to toilets.

### The world comes to appraise Swachh Bharat

- Recently, Mahatma Gandhi International Sanitation Convention was held in New Delhi, which was attended by delegates from 68 countries to learn from India's sanitation successes.

## SC, a crusader for women's rights

### What's in the news?

- In the past two years, the Supreme Court has given several judgements which questioned patriarchy in religion to ensure emancipation for women and set the course for the future.



### Allowed women to enter into Sabarimala & Haji Ali Dargah

- In Sabarimala case, the court held that the ban on women, based on their menstrual status, considering them as polluted and a distraction for worshippers vowed to celibacy, is a form of untouchability. It lifted the ban, allowing women of all age groups to enter into the temple.
- In October 2016, the court drew a parallel between the restriction on women worshipping in Sabarimala temple and Mumbai's famed Haji Ali Dargah. It had observed that exclusion is practised by both Hindus and Muslims and the problem needs to be addressed. A week later, the Dargah Trust conceded before the court that it had resolved to allow women to enter the sanctum sanctorum of the dargah at par with men.

### Struck down triple talaq

- The apex court on August 22 last year declared the instant triple talaq unconstitutional and anti-Quran. The Constitution Bench held that Islam cannot be anti-Quran. Triple talaq is against the basic tenets of the Holy Quran, and consequently, it violates Shariat.

### Tower of Silence

- Over the past year, the Court has intervened with the Parsi elders to allow Goolrokh Gupta, a Parsi woman, who married outside her faith, to pray at the Tower of Silence for her departed father.

### Hearing against FGM

- It has also referred to a Constitution Bench the question whether the practice of female circumcision or khafz, prevalent in the Dawoodi Bohra sect, amounts to "female genital mutilation" and is a violation of women's right to life and dignity.

### Bru tribe Who are Bru-s?

- Bru tribes, also referred to as the Reangs, are spread across the north-eastern states of Tripura, Assam, Manipur, and Mizoram.



#### What is the issue?

- The Brus left Mizoram in September 1997 in the wake of ethnic conflict between the Brus and the Mizos, the majority tribe of the state.
- The displaced Brus took refuge in a town called Kanchanpur in northern Tripura, on the Mizoram-Tripura border.
- Now, they are spread across seven refugee camps on the Jamui hills, which separate Tripura from Mizoram and Bangladesh.
- The number of Bru refugees living in these camps is estimated to be around 35,000.

#### Tripartite agreement

- In July the Centre and the state governments of Tripura and Mizoram signed an agreement for repatriation of thousands of Brus from Tripura to Mizoram. The displaced people, currently living in temporary camps in Tripura, were planned to be repatriated to Mizoram before September 30, 2018.
- The central government promised to provide financial assistance for rehabilitation of Bru community members in Mizoram and address their issues of security, education, livelihood, etc. in consultation with the governments of Mizoram and Tripura.

#### Why in News?

- Despite the Centre's warning to stop rations and subsistence allowance from October 1, only two families of displaced Brus returned to Mizoram from relief camps in Tripura as the deadline for their repatriation ended on Sept 30.

#### What do they demand?

- The refugees have been non-flexible on their seven-point demands which include the creation of an area development

council for the Brus in Mizoram, allocation of five hectares of land to each refugee family, their settlement in cluster villages with each housing at least 500 families, Rs.4 lakh compensation to each family before repatriation, revision of electoral rolls, identification of 1,000 left out families and general amnesty to the refugees.

## Social media giants collaborate with EC

### What's in the news?

- A committee under Senior Deputy Election Commissioner Umesh Sinha had a meeting with the regional and local heads of Google, Facebook and Twitter to discuss the measures to prevent the adverse impact of fake news and targeted communication to voters in the upcoming elections for four States of Madhya Pradesh, Rajasthan, Chhattisgarh and Mizoram.
- The media giants have assured the Election Commission that they will not allow anything affecting the level playing field on their platforms during the campaign period.

### EC's collaborations with media giants

- Recently, Google has accepted to help EC to keep tabs on online political advertising. It said it will develop a mechanism that will ensure pre-certification of political advertisements by the EC's Media Certification and Monitoring Committees.
- Google has also assured EC that it would set up a mechanism for sharing information on the cost of the political advertisements. This would be of use to Returning Officers when it comes to calculating the election expenditure of individual candidates.
- Facebook had tied up with the Indian fact-checking agency Boom Live, to tackle the spread of fake news on its platform. The pilot project was successful during Karnataka state elections which identified over 50 cases of doctored reports aimed at manipulating voters and influencing the outcome.

## Air safety in India

### What's in the news?

- In the aviation-safety audit conducted by the United Nations' International Civil Aviation Organisation (ICAO), India has slipped below its previous ranking of 66% to 57%.

### Why is this important?

- The ICAO *Universal Safety Oversight Audit Programme* seeks to identify if countries have consistently implemented a safety-oversight system.
- India is one of the 15 countries that are below the minimum target rates. India's air safety oversight score is lower than that of Myanmar, Bangladesh, Maldives, Pakistan, Sri Lanka, Nepal and even North Korea in the Asia-Pacific region.
- The low score can have serious repercussions, including a potential downgrade by the US aviation regulator Federal Aviation Administration (FAA).
- A downgrade would mean Indian airlines won't be able to mount new flights to the US or form alliances with US airlines.
- Also, Indian carriers which fly to the US would face more checks when their planes land there.
- This development does not come as welcome news for Indian airlines that have been trying to expand globally.

### e-Box initiative

#### What is e-box initiative?

- The helpline was inaugurated in 2016 as part of the "e-box" initiative of the Ministry of Women and Child Development to enable filing of complaints of sexual offences against children.
- The e-box is hosted on the NCPCR's website and allows children to file a complaint online or call a toll free number.

#### About NCPCR

- The National Commission for Protection of Child Rights (NCPCR) is a statutory body set up under the Commissions for Protection of Child Rights Act, 2005.
- The commission, which works under the administrative control of the Ministry of Women & Child Development, has been given the mandate to ensure that all laws, policies, programmes, and administrative mechanisms are in consonance with the Child Rights perspective as enshrined in the Constitution of India and also the UN Convention on the Rights of the Child.

#### Why in News?

- The NCPCR has been forced to temporarily shut down a helpline for reporting instances of child sexual abuse after it appeared in pornographic content search,

and calls seeking sexual services were received.

### Mob Leaders will pay: SC SC's directions to stop mob lynching

- In a move to curb mob violence, Supreme Court has held that leaders of outfits who instigate a mob to an act of vandalism, which results in death or loss of public and private property in the name of demonstrations, will personally face criminal action and are liable to compensate the victims of the violence.
- Each and every person, who was part of the violence, would be booked under Sections 153A (promoting enmity), 295A (deliberate and malicious acts to outrage religious feelings), 298 (intent to wound religious feelings) and, 495 (mischief) of the Indian Penal Code.
- The offences would come alive if the call for violence was made through a spokesperson or through social media of a group or by any individual.
- The Supreme Court ordered **persons caught red-handed by the police to be arrested on the spot.**
- If any leader fails to appear in the police station concerned, he shall be proceeded against as a suspect and be even declared an "**absconding offender**".
- State governments should set up Rapid Response Teams, preferably district-wise, to respond to mob violence, install websites which report instances of mob violence and destruction of public and private properties, special helplines, employ non-lethal crowd-control devices, like water cannons to deter the mob.

### Protest against Sabarimala Verdict

#### Background

- On September 28, a five-judge Constitution bench, headed by then Chief Justice Dipak Misra, lifted the ban on the entry of women of menstrual age into the Sabarimala shrine.

#### Why in News?

- Following the SC verdict, protests are mounting in Kerala by devotees of Lord Ayyappa.
- Protests have gained further momentum after the state government made it clear that it would not go in for a review of the Supreme Court verdict.

- Protesters claim that the ongoing protest was to protect the 'Ayyappa Dharma' and the ritualistic tradition at Sabarimala.
- They warned that devotees across the country would stage a united fight from the common apolitical platform against any move to destroy the age-old customs and traditions at Sabarimala.

## WHO's guidelines on Sanitation

### Global guidelines on sanitation and health

- The World Health Organization (WHO) launched its first global guidelines on sanitation and health.

### Significance of the guidelines

- The UN agency estimates that, based on current trends, 90 countries are unlikely to achieve SDG target of universal sanitation coverage by 2030. It calls on countries to make comprehensive policy shifts and invest more funds to achieve "sanitation for all".
- By adopting WHO's new guidelines, countries can significantly reduce the diarrhoeal deaths due to unsafe water, sanitation and hygiene. For every US \$1 invested in sanitation, WHO estimates a nearly six-fold return as measured by lower health costs, increased productivity and fewer premature deaths.

### Key recommendations

The guidelines outline four main recommendations:

1. Ensuring that communities have access to toilets that safely contain excreta
2. Assessing health risks to protect people from exposure to excreta, such as through leaky storage
3. Integrating sanitation into local government planning and service provision
4. Encouraging the health sector to invest more and coordinate sanitation planning to protect public health

### WHO Commends India

- WHO commended some countries on their actions on sanitation, including India for its launch of the Swachh Bharat Mission, to coordinate action for sanitation access, and Senegal for its work with the private sector to ensure pit latrines and septic tanks are emptied and treated.

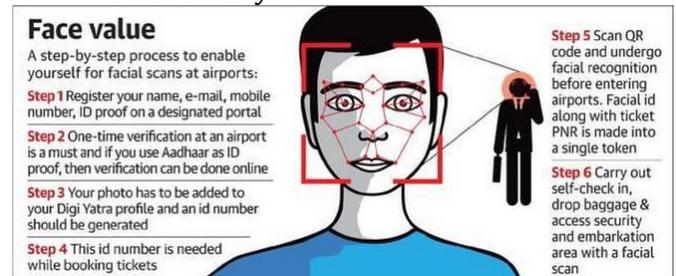
## Digi Yatra Initiative

### What is "Digi Yatra"?

- The Ministry of Civil Aviation has unveiled the **Digi Yatra initiative** which will soon offer Air passengers to enter airports in India **via facial recognition technology**.
- The initiative seeks to promote paperless and hassle-free air travel.
- The technology will soon be operational at Bengaluru and Hyderabad airports. The Airports Authority of India (AAI) plans to roll out the initiative at Kolkata, Varanasi, Pune and Vijayawada airports by April next year.

### How it works?

- The facility, which is voluntary, would require passengers to initially register themselves at a web portal by providing an identity proof.
- The travellers would then be required to undergo a one-time verification at an airport. Following which, the individual's facial identity would be captured and mapped onto a newly created Digi Yatra profile and a distinct identification number would be generated.
- Passengers would then have to provide this identification number at the time of purchasing an air ticket, to avail the Digi Yatra facility.



- The facility would enable travellers to enter the airport building by scanning a QR code on their mobile phones, after undergoing facial recognition.
- Once inside the airport, a passenger would be able to self-check-in, drop baggage, pass through e-gates to access security and embarkation areas with just a facial scan, thus obviating the need to produce a boarding pass at every step. However, travellers would still have to undergo mandatory security checks including frisking.
- A passenger's travel history would be purged after the completion of a journey and that the Digi Yatra programme would comply with the General Data Protection Regulation (GDPR) - European Union's Data Protection Regulation.

# Economy

## Amul model

### About Amul business model:

- Anand Milk Union Limited or Amul is an Indian dairy cooperative, based at Anand in the state of Gujarat.
- Formed in 1948, it is a brand managed by a cooperative body, the Gujarat Co-operative Milk Marketing Federation Ltd. (GCMMF), which today is jointly owned by 3.6 million milk producers in Gujarat.
- Amul spurred India's White Revolution, which made the country the world's largest producer of milk and milk products. The white revolution was spearheaded by Sardar Patel and Verghese Kurien.

### Why in news?

- Prime Minister Narendra Modi recently inaugurated a new chocolate-making factory set-up by the dairy giant Amul in Gujarat.
- He said a cooperative like Amul is a viable economic alternative to capitalist and socialist models.
- The new factory opened by the PM is an expansion of an already functional confectionery unit of Amul near Anand. The Gujarat Cooperative Milk Marketing Federation is India's largest farmers' cooperative.



### What are cooperatives?

- A **cooperative** is "an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise". **Cooperatives** may include: non-profit community organizations
- The cooperatives are the seed for a third economic model — controlled neither by government nor capitalists. Instead, it was

created with the cooperation of farmers and people and everybody was a part of it.

- This is one viable alternative to socialism and capitalism.

## Loan write-offs & Loan waivers

### What is writing-off a loan?

- A loan write-off occurs when a bank decides that a loan is not collectible and removes it from their balance sheet. The lender judges that it will not be able to recover its dues through collection for a variety of reasons.
- Although non-performing assets are written off, borrowers of such loans remain liable for repayment. Recovery of such accounts happens on ongoing basis under the legal mechanism.

### What is the loan waiver?

- Loan waiver is quite different from writing off a loan as it is the cancellation of recovery or refraining from claiming the dues. Banks will completely give up on such loans and no recovery will be made.

### Why in News?

- According to a recent RBI report, 21 public sector banks wrote-off Rs 3.16 lakh crore of loans in four years, and recovered only Rs 44,990 crore during the same period.
- Union Finance Minister Arun Jaitley has defended loan write-offs saying these did not lead to loan waivers and writing off non-performing assets is a regular exercise conducted by banks to clear their balance sheet and achieve taxation efficiency.
- He said loan write-offs did not lead to any loan waiver. Recovery of loans continues rigorously by banks under legal mechanisms, which included the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act (SARFAESI Act) and Debts Recovery Tribunals (DRTs).

## India's Economic Share: A Historical perspective

### Historical scenario

- Around three centuries ago, India's share of the global economy was about 25%. Today, it has reduced to single digits.

- During this period, India missed three waves of industrialisation: Industry 1.0, driven by mechanisation, steam power and weaving loom; Industry 2.0, driven by mass production and assembly line; and Industry 3.0, driven by electronics and computers.
- With the onset of Industry 4.0, where the industrial and digital worlds are converging, India has a once-in-a-lifetime opportunity to regain lost ground.

#### What needs to be done?

- The “affiliation system” of higher education needs to be reimaged in a way to provide greater autonomy and innovation in higher education to develop multi-disciplinary talent.
- Having universities with hundreds of affiliated colleges following standardised approaches stifles innovation and entrepreneurship.
- The curriculum in many of the educational institutions which is out of sync with shifts in the marketplace should move towards self-paced learning (proceeds based on learner response) and assessment methodologies should focus on learning outcomes. There should be a skilling movement similar to our freedom movement.
- The stringent labour laws need to be reformed in a way it become “employment friendly” rather than employee or employer friendly.

### Repo rate & MPC

#### What is Repo rate?

- Repo or repurchase rate is the interest at which the RBI lends money to the banks facing shortfall of funds.
- Repo rate is used to control inflation. In the event of raising inflation, RBI increase repo rate which will act as a disincentive for banks to borrow from the central bank. This ultimately reduces the money supply in the economy and thus helps in arresting inflation. Similarly, if it wants to make it cheaper for banks to borrow money it reduces the repo rate.

#### About MPC

- The Monetary Policy Committee (MPC) is a committee of the RBI, headed by its Governor, which is entrusted with the task of fixing the benchmark policy interest rate (repo rate) to contain inflation within the specified target level.

- The MPC have six members, - the RBI Governor (Chairperson), the RBI Deputy Governor in charge of monetary policy, one official nominated by the RBI Board and the remaining three members would represent the Government of India.
- The MPC takes decisions based on majority vote. In case of a tie, the RBI governor will have the second or casting vote. The decision of the Committee would be binding on the RBI.

#### Why in News?

- The MPC in its fourth bi monthly policy review has decided to hold the Repo rate at the present 6.5%. However, it changed the stance from ‘neutral’ to ‘calibrated tightening’.

#### ‘Calibrated tightening is the appropriate stance’

- Urjit Patel, the Governor of RBI said the calibrated tightening is the appropriate stance at this point in time given the forecasts and the financial conditions. The change of stance to calibrated tightening indicates that there was no possibility of a cut in rates in the near future.

### IL&FS crisis

#### What’s in the news?

- After a report from the Ministry of Corporate Affairs concluded that the affairs of the Infrastructure Leasing & Financial Services Ltd. (IL&FS) holding company and its group companies were being conducted in a manner that was prejudicial to public interest, the government has intervened in the IL&FS crisis, superseding its board and appointing new members, with banker Uday Kotak as chairman.

#### About IL&FS

- IL&FS is a PSU which was set up in 1987 to finance and promote infrastructure projects in the country.
- It is jointly owned by the State Bank of India (SBI), LIC, ORIX (Japan), Abu Dhabi Investment Authority and Greenspring Associates.
- It is now a financial behemoth with assets of over Rs. 1,15,000 crore.
- IL&FS is a holding company that operates through 169 other companies that are either subsidiaries, group companies or joint ventures with others.
- It is/has been associated with landmark projects such as the tunnel under the Zoji

La Pass, Delhi-Noida toll bridge, Gujarat International Finance Tec-City (GIFT) and a host of road, power, water and port projects.

### **What is the crisis?**

- The crisis in IL&FS started with a series of loan defaults in August and September of 2018 by the company and some of its subsidiaries.
- The IL&FS Group is facing tremendous debt pressure and struggling to service around Rs. 91,000 crores the outcome of its mismanaged borrowings in the past.

### **Financial dealings to be probed**

- The Corporate Affairs Ministry has issued directions to the Serious Fraud Investigation office (SFIO) to conduct investigations into all the financial dealings of IL&FS to determine whether any malpractice was involved at any level.

### **How the crisis unveiled**

- Following rise in bad loans in the last few years and the banking regulator tightening norms on restructuring, banks became extremely cautious in lending, particularly for infrastructure projects.
- A former board member of IL&FS tried to shift the blame to banks which stopped refinancing the company and major shareholders for not agreeing on fresh equity infusion.
- This made IL&FS to face a liquidity crunch to continue with ongoing projects leading to loan defaults.

### **State of Lenders**

- Lenders to the crisis-hit IL&FS which has dues of Rs. 34,480 crores are keeping their fingers crossed. Almost all the public sector banks have exposure to the group companies of IL&FS.
- Since the account is showing signs of stress, as RBI norms mandate, banks have to put it under special mention account and start working on the resolution mechanism.
- According to bankers, some lenders are seeing delay in repayment and have put the account under watch.

### **What is a Special Mention Account?**

- It is a classification of RBI to identify those accounts that has the potential to become an NPA/Stressed Asset. Logic of such a classification is because some accounts may turn NPA soon. Here, an early identification will help to tackle the problem better.

### **Negligence by credit rating agencies**

- Four leading rating agencies-- ICRA, CARE, India Ratings and Brickwork-- were involved in rating papers and schemes of different IL&FS group entities.
- The role of credit rating agencies has come under the scanner in the wake of the IL&FS defaulting issue.
- IL&FS and its subsidiaries were rated AAA for their commercial papers as well as debt programmes until just a few months ago.
- It has raised questions on the methodology and processes adopted by the rating agencies in evaluating the companies and their papers.

### **Impact on the Economy**

- Until recently, it appeared as if growth was finally returning and that the fall of rupee was the only problem to handle.
- The last few days have seen a crisis break out in the debt markets in the form of the IL&FS defaults that is threatening to spread to other parts of the economy.
- Alongside, global oil prices have been rising, causing fresh headaches for the Centre.

### **What should the government do?**

- While the rupee value has been already falling and the investor confidence was already in crisis the IL&FS has worsened the situation which has to be dealt quickly.
- The government has stepped in to save the IL&FS from debt crisis by bailing it out.
- The government has to take steps to ensure that the investor confidence is restored and the rupee value has to be restored in phased manner by increasing the exports.

### **Government's assurance**

- The government has made clear its commitment to ensuring that the ailing IL&FS receives the liquidity it needs from the financial system, and that no further defaults take place and the infrastructure projects are implemented smoothly

## **Fall of rupee fall + Growth of US Economy = Boost of Indian exports**

### **What's in the news?**

- India's exports have promising future with the U.S. economy growing at its best in four years, coupled with the rupee depreciation leading to enhanced net revenue

realisations, according to a report by ASSOCHAM

### Why is this situation considered to be profitable?

- The U.S. was top export destination with \$47.9 bn worth of shipments in the last fiscal, The U.S. accounted for about 16% of India's total merchandise exports of \$303 billion in the fiscal 2017-18 with the annual growth of 13.42%, the report said.
- It is the largest market for Indian exports, both for merchandise and services.
- So, when the U.S. grows at its current pace, it serves very well for the total Indian export basket.
- The fall of rupee value will be beneficial to the exports as it means the goods get cheaper in terms of dollar value and hence can induce increased US imports of Indian goods

## PMI

### What is Purchase Manager Index (PMI)?

- PMI is an Indicator of Business Activity Both in The Manufacturing & Services Sectors, but it Calculated Separately for Each Sectors.
- It Administered to the 500 Private Companies & Excluding the PSU
- 5 parameters in PMI are - new orders (30% weightage), output (25%), employment (20%), supplier's delivery (15%) and stock of purchases (10%).
- Manufacturing Growth Measured by the PMI is Considered As the Good Indicator of Industrial output

### Why in News?

- The Purchase Manager Index (PMI) Says, India's manufacturing economy recorded an improvement in growth during September. amid firmer gains in new orders, output and employment,

### Difference between the PMI & Index of Industrial Production:

- While PMI and IIP have both been used for gauging the health of the economy. But the Differences are
- **PMI:** it is calculated on the basis of information received on a monthly basis

from companies on various factors that represent demand conditions.

- **IIP:** IIP measures actual production output across the industrial sector.

### Reasons for Manufacturing Growth:

- Manufacturers raised their buying activity in Anticipation of further growth.
- Growth was linked to gains in both domestic and foreign demand.
- High product quality as a factor supporting total new order book growth.

### Significance of Growth:

- This Growth was amid firmer gains in new orders, output and employment
- This Growth in Time of U.S. dollar continued to raise the relative price of goods such as steel.

## Single electricity grid

### What's in the news?

- Prime Minister Narendra Modi urged world leaders in First General Assembly of International Solar alliance (ISA), to move towards a future of 'one world, one sun, one grid'.

### What is ISA?

- The International Solar Alliance is a common platform for cooperation among sun-rich countries lying fully or partially between the Tropics of Cancer and Capricorn.
- It was launched at the UN Climate Change Conference in Paris on 2015 by the French President & Indian PM to reduce the Global Green House Gases Emission
- The alliance includes around 80 countries that support a common declaration & it was Headquarters was National Institute of Solar Energy (NISE), Gwalpahari, Gurgaon, INDIA.

### Key points in the speech

- He emphasized to expand the ISA to include all member countries of the United Nations.
- His speech was highlighted earlier by United Nations Secretary-General António Guterres.
- He believed that the ISA will top the list of climate change organizations in the 21st Century Comparing with the OPEC & replace it in Future.

- For India he had set a target of 40% of electricity generation capacity from non-fossil fuels by 2030 (20% from non-hydro renewable).

## ECB

### What are external commercial borrowings (ECB)?

- ECB is basically a loan availed by an Indian entity from a non-resident lender. Most of these loans are provided by foreign commercial banks and other institutions.
- The significance of ECBs their size in India's balance of payment account. In the post reform period (after 1991), ECBs have emerged a major form of foreign capital like FDI and FII.
- External Commercial Borrowings (ECBs) includes:
  - Commercial bank loans, buyers' credit, suppliers' credit, securitized instruments such as Floating Rate Notes and Fixed Rate Bonds etc., credit from official export credit agencies and commercial borrowings from Multilateral Financial Institutions.
- The ECB policy of the Government seeks to emphasize the priority of investing in the infrastructure

### Why in News?

- The Reserve Bank of India liberalized the norms for oil marketing companies (OMCs) to raise funds through external commercial borrowings (ECB).

### Why it is significant?

- This Move is Importance amid the Rupee Under the Pressure & rise in global crude oil prices.
- By this oil companies can raise ECBs for working capital with a minimum average maturity of three to five years.

### What is Working Capital?

- *Working capital* is a measure of both a company's operational efficiency and its short-term financial health

### Impact of this Move

- It will help in broadening the basket of borrowing sources for working capital
- The working capital would provide the much-needed stability for fund management

## MSP For Rabi Crops

### What's in the News?

- The Union Cabinet Committee on Economic Affairs on approved raising the minimum support prices of All Rabi crops for 2018-19 to boost the Farmers Income.

### What are Rabi Crops?

- Rabi crops are agricultural crops that are sown in winter and harvested in the spring.
- Wheat, gram, masur, rapeseed, safflower barley, mustard, sesame and peas are grown in India as Rabi Crops.

### Minimum support prices:

- MSP is a form of market intervention by the Government of India at the beginning of the sowing season .
- The Crops are recommend on Basis of the Commission for Agricultural Costs and Prices (CACP)

### Benefit of the move:

- It will give additional return of 62,635 crore to the farmers
- With the Pradhan Mantri Annadata Aay SanraksHan Abhiyan' (PM-AASHA) announced by the government, there is a robust mechanism available to enable farmers realizes the MSP in fuller measure.

### Harm of the Move:

- The latest move on MSP could further escalate the concerns of the Reserve Bank over inflation.

# International Relations

## India-Pakistan

### News about UN Speech

- Indian External Affairs minister in her speech at 71st session of UN General Assembly in New York said that the Pakistan is being cunning in its words and actions against terrorism.
- She spoke about Pakistan being a safe haven for terrorists like Osama bin Laden, Hafiz Saeed, who have been masterminds of 9/11 and 26/11 respectively.
- Due to lack of any definition of terrorism which is internationally agreed, the Pakistan is characterizing terrorists as 'freedom fighters'.
- She insisted the international community to adopt 'Comprehensive Convention on International terrorism', which was proposed by India in 1996.
- Seeing Terrorism and climate change as duo trenches against international growth, she asked UN to act on these immediately and fundamentally reform.

### What is Comprehensive Convention on International Terrorism (CCIT)?

- CCIT is a legal binding framework on all signatories to deny funds and safe havens to terrorist groups.
- The original draft was proposed by India which was tabled in 1996 and discussed until April 2013. The following are the major objectives of the draft:-
  1. To have a universal definition of terrorism that all 193-members of the UNGA will adopt into their own criminal law
  2. To ban all terror groups and shut down terror camps
  3. To prosecute all terrorists under special laws
  4. To make cross-border terrorism an extraditable offence worldwide.
- The draft has remained as deadlock due to opposition from blocks like US, Organisation of Islamic Countries (OIC) and the Latin American countries.

- All three have objections over the "definition of terrorism" (the most divisive of the issues) and seek exclusions to safeguard their strategic interests. For example, the OIC wants exclusion of national liberation movements, especially in the context of Israel-Palestinian conflict. The US wanted the draft to exclude acts committed by military forces of states during peacetime.

### News about violation of Airspace

- Indian Army fired on the helicopter which came almost 250 m near the LOC in Poonch Sector.
- The helicopter was white in color, and was carrying PoK PM Raja Farooq Haider who was visiting a place near LOC.
- Helicopters are barred from coming within 1 km on both the sides of the LoC as per the agreement.

### What is violation of Air space mean?

- Airspace is the portion of the atmosphere controlled by a country above its territory, including its territorial waters or, more generally, any specific three-dimensional portion of the atmosphere.
- If there are aircrafts breaching this space then there is violation of airspace. There are agreements and conventions among nations about the limits of breach.

### What is the agreement b/w India and Pakistan w.r.t air space management?

- The bilateral pact is the "**Agreement between India and Pakistan on Prevention of Air Space Violations and for permitting Over Flights and Landings by Military Aircraft**", which was signed on April 1991 and came into force in August 1992.
- Article 2 lists out two levels of restrictions to be observed by a "military aircraft".
- Combat aircraft, that includes armed choppers, "cannot fly within 10 kilometers of each other's airspace including ADIZ".
- The next sub-clause is for "unarmed transport and logistics aircraft including

unarmed helicopters” to be permitted up to 1000 meters from each other’s airspace”.

## India-Russia

### India to gift 3 MiG-21s to Russia

#### Why in news?

- Ahead of India-Russia Summit in New Delhi on Oct 4 and 5, India has decided to gift Russia 3 MiG-21 aircraft as a gesture of friendship and strategic-partnership.



#### What were the things expected out of the leaders’ meet?

- Memoranda of Understanding for investment deals,
- Russian assistance in India’s dream space mission ‘Gaganyaan’.
- MoU for Road Transport and the Road Industry
- Cooperation on Micro, Small and Medium Enterprises.
- Meet with young Indian and Russian student “geniuses” who have excelled in studies, as part of an educational exchange programme.
- Discussion on Moscow’s push for talks with the Taliban for Afghanistan stability
- Three major military deals: for five S-400 missile systems estimated to cost about ₹39,000 crore (more than \$5 billion), four stealth frigates and a deal for Ak-103 assault rifles to be manufactured in India.

#### What is a Supersonic fighter jet?

- The speed of the aircraft is measured in terms of speed of sound (1 Mach= 343m/s). Any aircraft which travels above the speed of 1 Mach, it is referred as supersonic.
- Fighter Aircrafts are the class of aircrafts which are designed for air-to air combat.

They maintain air-superiority over the battlefield.

- Aircrafts which speed up more than 5 Mach are called **hypersonic aircrafts**.

#### What is MiG-21 & the story behind it?

- The MiG-21 is a Soviet Union aircraft and was designed by the **Mikoyan-Gurevich** Design Bureau in the 1950s.
- It made first flight in 1956 and entered service in 1959. However, Russia stopped producing the aircraft in 1985, while India continued using the upgraded variants.
- India inducted the MiG-21s in 1963 and got full technology transfer and rights to license-build the aircraft in the country.
- It is the **first supersonic fighter aircraft** of the Indian Air Force.
- The IAF still has about 120 MiG-21s in service which will all be **phased out of service by 2021-22**.

#### S-400, Kamov deal

- Ahead of India-Russia Bilateral Meet, two major agreements have become bone of contention for India with Russia against US continuous paroling in terms of CATSA.
- S-400 and Kamov are defense system and light-utility helicopter respectively which India has thought of purchasing from Russia. They are great inputs to Indian defense system.
- But in the line of maintaining equal friendship with USA, it has become hard for India to continue the deals.

#### USA warns India against signing S-400 missile system deal with Russia

- US have asked India not to sign the deal with Russia for S-400 otherwise it may not be given automatic waiver under CAATSA.
- The U.S. administration has put up clause under a domestic law, Countering America’s Adversaries through Sanctions Act (CAATSA) to impose sanctions on any country that has “significant transactions” with Iran, North Korea or Russia.
- U.S. officials cautioned that even if India manages to get a one-time waiver from the Countering America’s Adversaries through

Sanctions Act (CAATSA) law, it cannot expect a “free ticket.”

#### What is S-400 & Kamov?

- The **State-of-the-art S-400 Triumf** (NATO name SA-21 Growler) is considered one of the most advanced long-range defence systems in the world. It has a range of 400 km and can hit targets at a height of up to 30 km. Its powerful radars can track hundreds of targets simultaneously and destroy a range of targets.
- Each system includes a command post, 3D phased array acquisition radar, optional tracking radar and firing units. There are various kinds of missiles to choose from based on the mission requirements.
- Russian S-400 has been acquired by many countries like Algeria, Turkey, etc. India in 2016 had an IGA with Russia to purchase 5 S-400 systems, but the proceedings are not done
- **Kamov-226T helicopters** are light utility and multirole helicopters which will replace Cheetah and Chetak helicopters of India.
- They can even take off and land with one engine. These helicopters can work in any adverse conditions of day and night and has a ability to carry 7 passengers.
- Both the countries have Inter-governmental agreement (IGA) which mentions that India will import 60 helicopters from Russia and build 140 by technology transfer.



#### Signing of S-400 missile deal

- At the end of the annual summit both India and Russia signed the S-400 “Triumf” deal which estimated Rs. 40,300 crore. India has

to pay 15% of the deal in advance in rupee rouble mechanism. The systems are expected to start deliveries in 24 months, at the end of 2020,

- To US threat on sanctions, Indian sources said that the deal was planned long back and fulfills the **national interest** of India.
- Apart from this, they signed eight pacts in areas ranging from defence, nuclear energy, space and economy.
- Russia also reaffirmed its “**unwavering support**” to India for a permanent seat in an expanded UN Security Council.
- Two countries are cooperating in the **Rooppur Nuclear Plant** in Bangladesh.
- MoU to cooperate in ‘Gaganyaan’ – human space mission.

#### What is Rupee-Rouble Mechanism?

- India and Soviet Union during Indira Gandhi’s government had easy transactions between the countries which fulfilled each other’s interest. Both the nations used their local currencies to transact rather than dollar. But after Soviet Union breakdown, the mechanism disappeared.
- To increase the cooperation and smooth transactions among the countries, India and Russia have proposed to build up a new rupee- rouble mechanism which hedge against the foreign currencies risk, help to by-pass banking sanctions from the US and also make Indian and Russian products more competitive in each other’s markets.

#### Tashkent Declaration

##### What is Tashkent Declaration?

- The declaration which was initiated in march 2018, calls for direct talks between Afghan government and the compatible elements within the Taliban emphasized that a **political settlement was the best way to end violence in the war-torn country.**

##### Why in News?

- India has agreed to be part of **Tashkent Declaration Implementation** which has

called for talks with Taliban for stability without any preconditions.

- This was the takeaway after Uzbek President Shavkat Mirziyoyev visited India. Uzbekistan has been affected by instability in Afghanistan for all these years and wants region to be stable. India who has a strategic ally of Afghanistan has greater influence of say, this made Uzbek to persuade India to actively take part in implementation.

## Rohingya Crisis

### What's in News?

- In his first official visit to India, UN Secretary General Antonio Guterres said that India must support Bangladesh in dealing with Rohingya refugee crisis.
- He also insisted India to put pressure on Myanmar to stop the atrocity and make an environment safe for Rohingyas to go back and settle
- He described India as 'fundamental pillar of multilateralism.
- UN Secretary-General attended the first assembly of the International Solar Alliance, as well as a conference of Energy Ministers of the Indian Ocean Rim Association (IORA) countries.
- He attended the Mahatma Gandhi International Sanitation Convention along with Prime Minister Narendra Modi and paid tributes to Mahatma Gandhi.

### Who is UN General Secretary?

- He is head of UN secretariat, which is one of the six principal organs of United Nations. He is CEO in all meeting of UN.
- He is appointed by UN General Assembly on the recommendation from Security Council.
- Has a term of 5 years

### Bangladesh delays relocation of Rohingya

- The Bangladesh has delayed the planned relocation of a part of the Rohingya refugees from Myanmar to an islet in the Bay of Bengal, It was scheduled to be opened on Oct 3 but around 30% is left.

### Bhashan Char Facility

- Bhashan Char facility, refugee centre in an islet in Bay of Bengal which is being facilitated to accommodate Rohingya refugees. They will have cluster houses to home the Rohingya families. It is built by Bangladesh Navy.
- Bangladesh Navy said they had built one-storied buildings with 16 units to accommodate 16 Rohingya families.
- At least 60 Rohingya families to the Bhashan Char from the camps in Cox's Bazar once it is complete.
- The islet is of recent origin and falls in the way of powerful storms that visit Bangladesh during the pre-monsoon season. Many human right activists are criticizing the choice of refugee shelter for being flood prone and hazardous.

### UN urges India not to deport Rohingyas

- UN has warned that sending the Rohingyas back to an unsafe situation in Myanmar would violate UN principles on "refoulement".
- Seven Rohingyas being deported were "illegals" and not refugees, and added that it was 'significant' that India had succeeded in getting the Myanmar government to agree to take them back. The centre said that deportation is as per the laws.
- The men had requested the Myanmar government in 2016 to issue them documents to return to their country
- Rohingya were foreigners who came illegally, not refugees. He said deportation was a routine process with 53 Bangladeshis, a Pakistani and an Afghan national being sent back recently.



## SC refuses to stop deportation of Rohingyas

- Supreme Court too dismissed the plea of stopping the deportation after knowing that the men were prosecuted under Foreigner Act, 1946 for illegally entering India. Even Myanmar has recognized as them as their citizens.
- The deportation from the immigration point at Moreh Gate No 2 took place at 1 p.m. soon after the Supreme Court rejected the plea to intervene in the case.

## What is refoulement?

- **Refoulement** means the expulsion of persons who have the right to be recognized as refugees
- The principle of non-refoulement has first been laid out in 1954 in the UN-Convention relating to the Status of Refugees
- Article 33(1) provides that:  
"No Contracting State shall expel or return ('refouler') a refugee in any manner whatsoever to the frontiers of territories where his life or freedom would be threatened on account of his race, religion, nationality, membership of a particular social group or political opinion."
- The only possible exception provided for by the UN Convention is the case that the person to be expelled constitutes a danger to national security.

## Post-Brexit immigration plan

### What's in news?

- In the context of Brexit, UK is employing new system which may introduce further restrictions on the ability of Indian workers and their families to come to the U.K., requiring any family to be sponsored by the employer.
- PM Theresa May gave a statement that Britain may end freedom of movement once and for all. The new system will only be focused on the skills.

### Employees in a fix

- The successful applicants would be able to bring their immediate family only if they were sponsored by future employers, thereby increasing the potential costs of businesses and putting further obstacles in the way of people being able to bring their families to the U.K.
- The other question which is being asked is 'Will employers now make a distinction between the types of people who they would be willing to hire — whether they are married or whether they have children?'
- They have excluded India under 'swift system of e-gate visa checks for shorter stays for low-risk countries. They reasoned that India is a high-risk country in Britain.

# Science & Technology

## Oxidative stress & DNA Condensation

### What is Oxidative Stress?

- Free radicals is an oxygen containing molecule that has one or more unpaired electrons, making it highly reactive with other molecules, Some of them are harmful as they destabilize the cell component.
- Antioxidants are molecules present in cells that prevent free radical reactions by donating an electron to the free radicals without becoming destabilized themselves.
- Oxidative stress is defined as a disturbance in the balance between the production of reactive oxygen species (free radicals) and antioxidant defences, to counter those free radicals

### Why in news?

- A new protein (WhiB4) that condenses the DNA of TB-causing bacteria in response to oxidative stress has been found.

### What is DNA condensation?

- DNA condensation refers to the process of compacting DNA molecules.
- The DNA compaction is said to be only for a limited period of time and is said to be reversible. Prolonged compaction eventually leads to the death of bacteria.
- The scientists used the artificial promoter of WhiB4 using genetic engineering and ensured prolonged condensation of bacterial DNA.
- This will ensure the death of the bacteria.

### Applications

- A drug or an inhibitor to regulate WhiB4 protein that directly causes DNA compaction for a long time leading to bacteria death can be used.
- Viruses that infect TB bacteria can be used as vehicles to carry WhiB4 protein into the bacteria, but they have to cross the macrophage barrier of infected cell which is a challenging phase.

## Colistin resistance in Klebsiella bacteria

### Colistin

- Colistin is a powerful antibiotic extensively used in veterinary practices as a growth promoter. It kills the *Klebsiella pneumoniae* bacteria in the animal gut leading to greater absorption of the animal

feed thus making the animals grow fat and fast.

### Excessive use of colistin

- The extensive usage of colistin in animals leads to generation of colistin-resistant bacteria in poultry and freshwater fish.
- The use of chicken litter as a manure in agriculture results in the transmission of the colistin-resistant bacteria to vegetables.
- There is a greater risk of transmission of colistin-resistant bacteria from fresh vegetables and meat to humans.

### Banning the antibiotic?

- Many countries including China have already banned the use of colistin as a growth promoter. India is now planning a similar ban.

### Why in News?

- A study carried out by the researchers from Apollo Cancer Institute, Chennai, has found bacteria resistant to colistin drug in 51 of the 110 (46%) fresh food samples (poultry, mutton, fish, and vegetables) tested.
- The researchers have for the first time uncovered the mechanism by which *Klebsiella pneumoniae* bacteria in food samples develop resistance to colistin.

### The mechanism

- Mutations and insertional inactivation in *mgrB* gene are responsible for colistin resistance in *Klebsiella*.
- In the case of insertional inactivation, an external genetic element (called insertion sequence) gets inserted into a normal *mgrB* gene leading to its inactivation.
- Once the *mgrB* gene gets inactivated, the *Klebsiella* bacteria become resistant to colistin antibiotic.

## Type-2 polio virus contamination

### What is Polio virus?

- Polio (poliomyelitis) is a highly infectious viral disease. The poliovirus invades the nervous system and can cause irreversible paralysis in a matter of hours. The virus is transmitted by person-to-person spread mainly through the faecal-oral route.

### What are the types of Polio?

- There are 3 types of wild poliovirus- P1, P2 and P3. In 2015, P2 was declared

eradicated by the World Health Organisation.

- Since P3 has not been detected since 2012, P1 is the only wild poliovirus type that remains in circulation.



### P2 strain found in sewage sample

- Recently, traces of polio type-2 virus were found in some batches of OPV manufactured by a pharmaceutical company in Uttar Pradesh.
- Following the global eradication of P2, India stopped the tOPV in 2016 and replaced it bOPV. Finding P2 strain in its vaccine form has raised concerns as the virus was no more in circulation even through the vaccines.

### India remains vigilant against polioviruses

- Union Health Ministry responded to the issue stating that India in consultation with WHO has taken all measures to ensure that all vaccines used under the immunisation programme are totally safe and effective. It added that India continues to remain vigilant against all three types of polioviruses.
- The Ministry has ordered an inquiry into the issue and additional immunisation in Uttar Pradesh, Maharashtra and Telangana.

### What is OPV?

- Oral poliovirus vaccines (OPV) are the predominant vaccine used in the fight to eradicate polio. There are different types of oral poliovirus vaccine containing live attenuated (weakened) polio virus.
- There are different vaccines to stop polio transmission:
  1. Trivalent oral polio vaccine (tOPV) – protects against poliovirus types 1, 2, and 3. It was withdrawn in 2016.
  2. Bivalent oral polio vaccine (bOPV) – protects against poliovirus types 1, and 3

3. Monovalent oral polio vaccines (mOPV1, mOPV2 and mOPV3) – protect against each individual type of poliovirus, respectively.

## Nobel Prize for Medicine, Physics, Chemistry, Peace

### About Nobel Prize

- The Nobel Prize is an international award administered by the Nobel Foundation in Stockholm, Sweden, based on the will of **Alfred Nobel**, Swedish inventor and entrepreneur.
- The prizes in Chemistry, Literature, Peace, Physics, and Physiology or Medicine were first awarded in 1901.
- In 1968, Sweden's central bank Sveriges Riksbank established the Sveriges Riksbank Prize in Economic Sciences, which, although not being a Nobel Prize, has become commonly known as the Nobel Prize in Economics.

### Why in News?

- The Nobel Prizes for the year 2018 has been announced.

### For Medicine

- Two immunologists, James Allison of the U.S. and Tasuku Honjo of Japan, won the 2018 Nobel Medicine Prize for their research **into how the body's natural defences can fight cancer**.
- In 1995, Dr. Allison was one of two scientists to identify the CTLA-4 molecule as an inhibitory receptor on T-cells, which reduce their immune responses. T-cells are a type of white blood cell that plays a central role in the body's natural immunity to disease.
- Around the same time, Dr. Honjo discovered a protein on immune cells, the ligand PD-1, and eventually realised that it also affects the immune system responses against tumour cells.
- These discoveries led to treatments targeting such proteins that act as a brake on the body's natural defences killing cancer cells and thereby unleashing our immune cells to attack tumours.

### Laser pioneers win Physics Nobel

- Three scientists- Arthur Ashkin of the U.S., Gerard Mourou of France and Donna Strickland of Canada- won the Nobel Physics Prize for **inventing optical lasers that have paved the way for advanced**

### precision instruments used in corrective eye surgery.

- Mr. Ashkin was honoured for his invention of “optical tweezers” that grab particles, atoms, viruses and other living cells with their laser beam fingers. With this he was able to use the radiation pressure of light to move physical objects.
- Mr. Mourou and Ms. Strickland — only the third woman to win the Physics Prize — won for helping develop a method to generate ultra-short optical pulses- the shortest and most intense laser pulses ever created by mankind. Their technique is now used in corrective eye surgery.

### Trio gets Chemistry Nobel

- Two Americans and a Briton won the 2018 Nobel Prize for Chemistry for harnessing the power of evolution to produce novel proteins used in everything from environmentally friendly detergents and biofuels to cancer drugs.
- Frances Arnold of the California Institute of Technology, George Smith from the University of Missouri and Gregory Winter of Britain’s MRC Laboratory of Molecular Biology were awarded the prize for pioneering science in enzymes and antibodies.
- Ms. Arnold’s research on enzymes led to the development of better industrial chemicals and pharmaceuticals. Mr. Smith developed a method using a virus that infects bacteria to produce new proteins while Ms. Winter used the same technique for the directed evolution of antibodies.

### Congolese doctor, Yazidi activist get Nobel Peace Prize

- The Nobel Peace Prize for 2018 has been awarded to Congolese gynaecologist Dr. Denis Mukwege and Yazidi human rights activist Nadia Murad for their efforts **to end the use of sexual violence as a weapon of war and armed conflict.**
- **Dr. Denis Mukwege** has spent large parts of his adult life **helping the victims of sexual violence** in the Democratic Republic of Congo. Dr. Mukwege and his staff have treated thousands of patients who have fallen victim to such assaults.
- **Ms Murad** is a Yazidi-Iraqi human rights activist who was captured by ISIS and sold as a slave. Murad escaped her captors in early 2015 and shared her story of violence, rape and terror with the world.

She continued her activism, becoming the **Goodwill Ambassador of the United Nations and founding Nadia’s Initiative**, an organization dedicated to helping women and children victimized by genocide, mass atrocities, and human trafficking to heal and rebuild their lives and communities.

### Mosquito repellent paint

#### Why in the news?

- A Japanese paint producer has launched the world's first mosquito-repellent paint in Zambia to help it reach a target to eliminate malaria by 2021, the country's biggest killer.
- The paint technology disrupts the mosquito's nervous system on contact, reducing its ability to remain on walls where the paint has been applied.
- The knock-down effect lasts for up to two years, offering lasting protection from malaria infection and other mosquito-borne diseases.

#### About Malaria

- Malaria is a life-threatening disease caused by *Plasmodium parasites* that are transmitted to people through the bites of infected *female Anopheles mosquitoes*, called "malaria vectors."

#### Anti-malarial drug resistance

- The disease is curable if caught early, but current anti-malarial drugs are failing in many areas as the malaria parasite is developing resistance towards the most important front-line drugs used to treat the disease.
- In 2016, there were an estimated 216 million cases of malaria in 91 countries, an increase of 5 million cases over 2015.
- The African Region carries a disproportionately high share of the global malaria burden. In 2016, the region was home to 90% of malaria cases and 91% of malaria deaths.

### MASCOT on Asteroid Ryugu

#### Why in News?

- A Japanese probe launched a new observation robot towards an asteroid, as it pursues a mission to shed light on the origins of the solar system.
- The Hayabusa2 probe launched the French-German Mobile Asteroid Surface

Scout, or MASCOT, towards the Ryugu asteroid's surface.

#### Significance of the launch

- It is hugely significant to take data from the surface of an asteroid.
- The 10-kg box-shaped MASCOT is loaded with sensors. It can take images at multiple wavelengths, investigate minerals with a microscope, gauge surface temperatures and measure magnetic fields.
- It was the first time that moving, robotic observation device have been successfully landed on an asteroid.



#### Hayabusa2:

- It is an asteroid sample-return mission operated by the Japanese space agency, JAXA.
- It is in the process of surveying the asteroid for a year and a half, departing in December 2019, and returning to Earth in December 2020.
- Hayabusa2 carries multiple science payloads for remote sensing, sampling, and four small rovers that will investigate the asteroid surface to inform the environmental context of the samples collected.

#### Ryugu:

- Ryugu is a near-Earth object and a potentially hazardous asteroid of the Apollo group.
- Asteroids-a small rocky body orbiting the sun. Large numbers of these, ranging enormously in size, are found between the orbits of Mars and Jupiter, though some have more eccentric orbits.

# Environment

## Geoparks

### UNESCO Global Geoparks Network

- UNESCO Global Geoparks are single, unified geographical areas where sites and landscapes of international **geological significance** are managed with a holistic concept of protection, education and sustainable development. At present, there are 140 UNESCO Global Geoparks in 38 countries (none from India).
- The Global Geoparks Network is a platform where members exchange ideas of best practise, and join in common projects to raise the quality standards of all products and practises of a UNESCO Global Geopark.

### Why in News?

- The Geological Survey of India is planning to propose Lonar Lake in Maharashtra and St. Mary's Island and Malpe beach in coastal Karnataka for the UNESCO Global Geopark Network status.
- The Geopark tag which is similar to that of a 'World Heritage Site' for historical monuments can bring India's famed geological features to the global stage.

### About St. Mary's Island

- The Island, which is located near to **Malpe Beach**, is made up of hexagonal mosaic of basaltic rocks which is estimated to be an 88-million-year-old formation that goes back to a time when Greater India broke away from Madagascar.



### Lonar Lake

- Lonar crater located in Maharashtra, is the **only known meteorite crater** in basaltic rock which is estimated to be 50,000 years old.
- A meteorite estimated to weigh two-million-tonnes slammed into the Earth, creating a 1.83-km diameter crater where the lake formed.
- A land-locked water body which is alkaline and saline at the same time, the Lonar Lake

supports micro-organisms rarely found elsewhere on earth.



## Machhli Tiger

### About "Machhli" Tiger

- Machhli, also known as T16, is an iconic tiger, credited with reviving the tiger population at the Ranthambore National Park, Rajasthan. She was called "Queen of Ranthambore", "Lady of the lake".
- The 20-year-old tigress was mother of 11 cubs including seven females and four males.

### Why in News?

- An expert team is in the process of preparing a genetic map- the process of tracing out the sequence of genes- from Machhli's DNA, which was extracted at the time of her death.
- Once the complete genome map is prepared it could serve as a template, or 'reference genome', for comparing the genes of tigers anywhere.

## Indonesia tsunami

### What is a tsunami?

- Tsunamis (also known as Harbour waves) are series of ocean waves caused by a sudden displacement of water. They are most often caused by earthquakes, but they can also be caused by other events, such as volcanic eruptions and meteorites.

### Sulawesi Tsunami

- More than 800 people were killed after a 7.5 magnitude earthquake struck the Indonesian island of Sulawesi, triggering a devastating tsunami with waves as high as six metres.
- It is the latest natural disaster to hit Indonesia, which is frequently struck by earthquakes, volcanic eruptions and tsunamis because of its location on the

“Ring of Fire’, an arc of volcanoes and fault lines in the Pacific Basin.

- Indonesia’s National Disaster Management Agency (BNPB) has predicted the death toll in Sulawesi will rise as the regions of Donggala, Sigi and Parigi Moutong — with a combined population of 1.2 million — had yet to be fully assessed.

### Scientists puzzled by ‘peculiar’ tsunami

- While early warning systems around the world were quick to pick up the earthquake in the Pacific, the scientific community couldn’t predict the tsunami that subsequently ravaged the Sulawesi island as there were no readings in the **buoys** (instrument used to detect the waves) and tide gauges.
- Within five minutes of the 7.5 magnitude earthquake being detected on the Pacific Ocean floor, a warning was issued by the Indonesian Tsunami Warning network. But after three more warnings, the alert was withdrawn as nothing was visible on the ocean gauges or buoys.

## Stubble burning

### What is stubble burning?

- It is the practise of burning paddy residues by the farmers of Punjab and northern parts of Haryana to quickly get their fields ready for the next crop- wheat.

### How does it impact the environment?

- Stubble burning is the cheapest and less time-consuming method to get rid of farm residues.
- But it releases substances that can harm human health, including carbon monoxide, nitrogen oxides, and particulate matter.
- Clouds of ash and smoke can travel more than thousand kilometres and create an obstinate and non-clearing clouds.
- Smog formed of the smoke can increase the levels of pollutants by manifolds in the air, making it difficult to breathe.
- It also has adverse consequences on the quality of soil. When the crop residue is burnt the existing minerals present in the soil get destroyed which hampers the cultivation of the next crop.

### Why in News?

- The Punjab government has decided to appoint nodal officers in 8,000 paddy growing villages in a move to check stubble burning.

- The nodal officers would also be tasked with keeping a strict vigil over the post-harvesting operations.
- The officials for each of the affected villages will spread awareness on the dangers of stubble burning for health and environment.



## IPCC Climate Warming

### What is Paris Agreement?

- In 2015 several nations reached a landmark agreement in Paris to combat climate change.
- The Paris Agreement’s central aim is to strengthen the global response to the 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.

### About IPCC

- The Intergovernmental Panel on Climate Change (IPCC) is an international body set up by the World Meteorological Organization (WMO) and United Nations Environment Programme (UNEP) to provide policymakers with regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.

### Why in News?

- The IPCC has opened a meeting in Incheon, South Korea to consider its special report **Global Warming of 1.5 °C**, which includes the impacts and associated risks of such a temperature increase.

### Findings of the report

- Global mean temperatures in 2017 were about 1.1 °C above pre-industrial levels. We are already well on the way to the 1.5°C limit and the sustained warming trend shows no sign of relenting.
- With only a single degree Celsius of warming so far, the world has seen a

climate-enhanced crescendo of deadly heat waves, wildfires and floods, along with superstorms swollen by rising seas.

- Without a radical course change, we are headed for an unliveable 3°C or 4°C hike.
- The past two decades included 18 of the warmest years since records began in 1850. This year is, yet again, expected to be one of the warmest years.

### Course correction

- The pathways to avoiding an even hotter world require a swift and complete transformation not just of the global economy, but of society too.

## Saving Gir Loins

### What's in the news?

- In possibly the worst-ever tragedy in the Gujarat's Gir forest, the only abode of Asiatic lions in the world, 23 lions have died since September 12, and as many as 36 are battling for their lives because of the deadly outbreak of **Canine Distemper Virus (CDV)** and tick-borne Babesiosis, a parasitic disease.
- The Gujarat government has launched the rescue efforts calling experts from outside, including London, and imported CDV vaccines from the United States in order to control the situation.

### CDV

- Canine distemper, a contagious viral disease, affects a wide variety of animal species, including dogs, coyotes, foxes, pandas and wolves. It attacks the respiratory, gastrointestinal and nervous systems of animals. In the past, CDV wiped out 30 percent of the total population of lions in Serengeti forest areas in East Africa.

### Mutated virus may have killed Gujarat lions

- Wildlife experts have expressed fears of a mutation in a virus that may have jumped a host from dogs to lions, as the likely cause of deaths of the lions.
- Because many of the Gir lions live outside protected areas and are in contact with domestic dwellings, their susceptibility to new pathogens has been reportedly raised.

### ICMR recommends vaccine for lions

- The Indian Council for Medical Research (ICMR) has confirmed that the CDV was responsible for lion deaths after a complete CDV genome test.

- Considering the threat posed to the endangered species, the research body has recommended CDV vaccine shots for all the lions in Gir as an immediate protective measure. The ICMR has also recommended that to avoid extinction, the lions should be placed in two-three different sanctuaries.
- However, some wildlife biologists caution that wild animals shouldn't be vaccinated because it's likely to compromise their immunity against future infections.



## India's first methanol cooking fuel

### What's in the news?

- In a pilot project, Assam Petrochemicals Limited (APL)- India's first public sector producer of methanol and formalin from natural gas as feedstock, distributed cooking stoves fuelled by methanol to 500 residents.
- The project has been promoted by NITI Aayog.

### Significance of methanol

- The Government is looking at conversion of coal, petroleum and natural gas to methanol so that LPG (liquefied petroleum gas) consumption is reduced.
- About 80% of LPG consumed in India is imported.
- Shifting towards Methanol would also reduce the high import dependence on crude oil of India. The Government is targeting 10% reduction in oil and gas import dependence by 2022 from 2014-15 levels.
- Methanol cook stoves can help in achieving the objective of access to clean cooking fuels in India and further the flagship initiative of the Government, Pradhan Mantri Ujjwala Yojana.
- In terms of heat value, a 14 kg LPG cylinder is equivalent to about 20 kg of methanol. But methanol works out 30% cheaper, and the saving on an equivalent quantity of LPG is expected to be up to Rs. 350.

## Culture

### 'World Peace' monument

#### What's in the news?

- Vice-President M. Venkaiah Naidu inaugurated the world's largest dome at the Maharashtra Institute of Technology (MIT)'s World Peace University (MIT-WPU) campus at Loni Kalbhor on the 150th birth anniversary of Mahatma Gandhi.
  - The structure, called the 'World Peace Monument' dome, took nearly 13 years to be build.
  - At 160 ft. in diameter and 263 ft tall, it is larger in area than the dome at St. Peter's Basilica in Vatican City (which is 136 ft. in diameter and 448 ft. in height).
- The dome is built atop the MIT World Peace Library and the World Peace Prayer Hall, which are named after the 13th century poet-saint and philosopher Dnyaneshwar — a pivotal figure of the Bhakti movement in Maharashtra.



# News in-depth

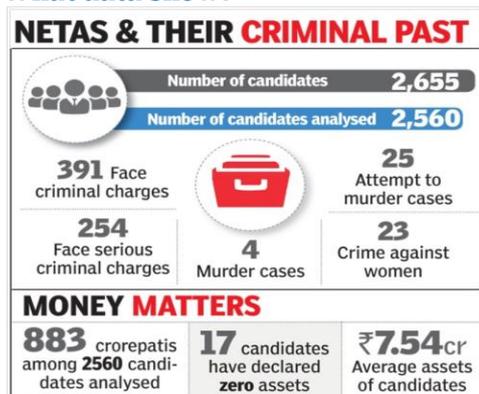
## The Hindu Editorials

### In Parliament's court

#### Why in news:

- SC instructed the Parliament to enact a strong law to disqualify politicians facing criminal cases from contesting election.
- The court made it mandatory for political parties and candidates themselves to make public disclosure through print and electronic media.
- It was hoped that the judiciary would show the way forward with regard to preventing such candidates from contesting elections, but the Supreme Court has left it to the Parliament to legislate on the subject.

#### What data show?



- Data from the Association for Democratic Reforms (ADR) indicates that 179 out of the 543 elected Members of Parliament in the present Lok Sabha and 20 of 228 members of Rajya Sabha have some kind of criminal case pending against them.
- Allegations of their involvement in serious crimes such as crimes against women and

### The Road to e-vehicles

#### Why in News?

- Jharkhand government has recently introduced electric vehicles for official use.

kidnapping outnumbers the frivolous nature of crimes.

- There seems to be very little improvement in this regard in the last five years.

#### Why is the issue serious?

- The lawmakers have become the law breakers as person with muscle power have taken over law making in their hand which affects every framework of governance.
- When Election Commission's powers to legislate on such laws is limited, Parliament's coming up with such a law has a less chance.
- Public opinion too is not firm on this. For example, a survey conducted by the Centre for the Study of Developing Societies, found divided opinions when people were asked whether they would be willing to vote for a honest candidate who may not get their work done, or a tainted candidate who could get their work done.

#### Way forward:

- Decriminalization of politics needs a multipronged approach involving all the stakeholders like people, media and the political parties. vote Awareness of the citizens in taking a honest stand followed by a strong law will be the right step to decriminalize politics so that corrupted politicians have no say in the governance.

- Rupee depreciation affects Electric Vehicle Industry.

#### Government push for Electric Vehicles in past:

- The scheme named “Faster Adoption and Manufacturing of Electric and Hybrid Vehicles in India” (FAME) has been laid for improving and increasing electric mobility in India.

#### **NITI Aayog’s mobility plan:**

- Subsidizing the EV industry while penalizing conventional cars.
- Lowering taxes and interest rates for loans.
- Lowering the sale and registration of conventional cars.

#### **Electric Vehicles:**

- An electric vehicle, also or traction motors called an EV makes use of one or more electric or traction motors for propulsion. It may be powered through a collector system or may be self-contained with a battery, solar panels or an electric generator to convert fuel to electricity.

#### **Electric vehicles as an integral component of smart cities:**

- They become the frameworks of smart transportation.
- Their development plans incorporates looking into the environmental challenges.
- Electric vehicles will reduce fuel bills.

#### **Challenges:**

- Indian EV market currently has one of the lowest penetration rates in the world. It must be compatible to the India-specific road map for a transition.
- While electric vehicles are taxed at 12% under the goods and services tax (GST), batteries were taxed at 28% until recently. This has now been lowered to 18%—but the discrepancy still sits uneasily with the potential switch in Fame II’s focus.
- India does not have any known reserves of lithium and cobalt, which makes it entirely dependent on imports of lithium-ion batteries from Japan and China.

#### **Solutions and advantages attached:**

- Environment-friendly EVs will reduce air pollution and thus contribute to the fight against climate change.
- As per NITI Aayog’s report EVs will help in cutting down as much as 1 Gigatonne (GT) of carbon emissions by 2030.
- In February 2016, a Technology Platform for Electric Mobility was initiated jointly by the departments of heavy industries, and science and technology thereby boosting the R& D innovation.
- The Faster Adoption and Manufacturing of (Hybrid) and Electric Vehicles (Fame) framework has been extended repeatedly.
- As Batteries make up 50% of EV costs the government is focusing on incentivizing the batteries than the vehicles.
- Union power ministry provides battery charging stations operate without licences. But plenty remains to be done: addressing technical concerns like AC versus DC charging stations, handling of peak demand, grid stability.

#### **Way forward:**

- The e-vehicles and renewable industries must be seen in conjunction.
- Stabilizing the policy environment when it comes to taxes, non-fiscal incentives and the infrastructure needs to be tackled.
- The policy makers must come up with an India-specific road map for a transition that needs to be smooth if only because it is inevitable.
- If other States and the Centre were to follow the example set by Jharkhand, it would early adoption of e-vehicles generating consumer momentum for India ensuring its goal by 2030.

## The voice that is great within us

### Introduction:

- The crises in Indian democracy and in global politics show the relevance of Gandhi even today.
- Truth and Satya, was the central axis of the Gandhian system of thought and practice.
- For Mohandas Karamchand Gandhi, everything turned on Truth — satyagraha, swaraj, ahimsa, ashram, brahmacharya, yajna, charkha, khadi, and finally, moksha itself.



### Truth alone triumphs!

- United States appears on the verge of replacing Truth with perjury as an acceptable value, even in the apex court of the criminal-justice system, shaking the very bedrock of American constitutionalism with regards to the controversy about the appointment proposal of Federal to the U.S. Supreme Court as the nominee of the Republican Party, as he stands accused of sexual assaulting.
- When Truth is rendered negotiable and dispensable, the balance of justice — in this case, between genders and between political parties — becomes disastrously upset.
- Gandhi stressed on hearing the “small, still voice” within himself, the voice belonging to one he called “antaryami”, “atma” or “God” — an inner prompt, the self as a

## Rescuing IL & FS

### Introduction:

- The Central government avoided a major crisis by taking over the debt-ridden

guide and a compass – so that he could keep moving ever closer to Truth.

- It was this voice that he followed, that made him undertake life-threatening fasts his health wouldn't permit; withdraw from active politics at the most crucial junctures of India's anti-colonial struggle; leave factual errors and narrative inconsistencies in texts which his readers had pointed out as obvious mistakes; embark on life-long ordeals of a sexual nature, involving not just his own celibacy and asceticism, but also that of his wife Kasturba, his fellow Ashramites, and his sons and their families.

### World as a home

- Of late, many musicians in south India have faced vicious attacks from rightwing Hindutva groups for singing hymns and psalms, by hijacking “Hindu” Carnatic music for “Christian” evangelical aims. This despite the fact that the violin, central to the Carnatic system is a European gift to Indian music, and both Christian and Muslim religious lyrics and poetry have been a constitutive part of the Carnatic repertoire throughout the 20th century.
- Gandhi made great use of the Bible in his prayers, teachings, writings and Ashram liturgies. He was often accused of being a crypto-Christian. However, he flatly refused to give preference to the Vedas over the Bible.

### Conclusion:

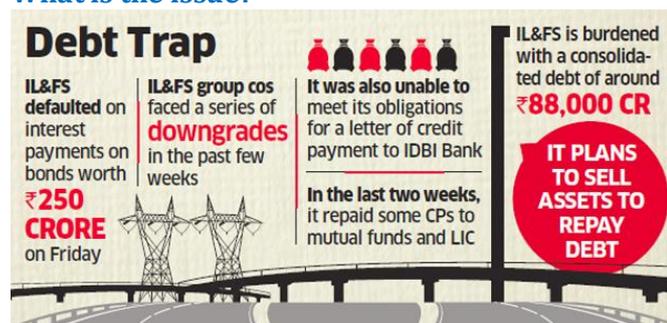
- Satyamev Jayate was Gandhi's core philosophy of life as mentioned by him in his book -The story of my experiments with truth. Though ‘small’ and ‘still’ is relevant in everyone's life at any point of time which embraces all and is powerful and eternal.

Infrastructure Leasing and Financial Services Limited (IL&FS).

- Weighed down by a debt pile of Rs 90,000 crore, the infrastructure had multiple

defaults on repayments, forcing the government to step in.

### What is the issue?



- Infrastructure Leasing & Financial Services (IL&FS) is a Non-Banking Finance corporation (NBFS) which lends for infrastructural projects has a total consolidated debt close to Rs 1 lakh crore, and it started to miss deadlines on its debt obligations beginning in August.
- It has already defaulted on around Rs 450 crore worth of inter-corporate deposits to Small Industries Development Bank of India (SIDBI).
- IL&FS's borrowings were all repayable in the short to medium-term of roughly 8-10 years but the returning became piled up from the fact that its projects were stalling and not being completed.

### Government's rescue:

- IL&FS company is listed as "systemically important" by the Reserve Bank of India and the government won't allow it to fail.
- The Centre has decided to supersede the Board of Directors of the troubled Infrastructure Leasing & Financial Services (IL&FS).

### Area that needs to be focussed:

- This is an classical example of an asset-liability mismatch caused by funding

## Up in the air-on stubble burning

### Why in News?

- Two years ago, the National Green Tribunal took a serious view of air pollution in winter by banning the practice of stubble burning, and ordered Punjab and Haryana (rice-wheat bowls of northern India) to enable farmers to adopt a technology-driven solution while penalizing the ones who refuse to abide by the order.

projects of 20-25 years payback period with relatively short-term funds of 8-10 years. Hence, there should be a long-term finance sources for infrastructure projects.

- The LIC and some insurance companies are the only domestic sources and they too do not lend beyond 10 to 12 years.
- It also needs to be analysed how a company listed as "systemically important" managed to fly under the radar with mis-governance of debt pile-up due to over-leveraging did not happen overnight.

### Conclusion:

- Though the government has taken the right step to take over the authority of the IL&FS, but rescue cannot always be the right step. Prevention is better than cure; corporate governance needs more focus from all the stakeholders.

### What is IL& FS?

- IL&FS is a high-quality infrastructure and financial solutions that operates through 169 other companies which are subsidiaries, group companies or joint ventures. The projects undertaken by it includes the tunnel under the Zoji La Pass, Delhi-Noida toll bridge, Gujarat International Finance Tec-City (GIFT) by undertaking road, water, power and port projects.
- IL&FS' group companies are namely: IL&FS Investment Managers Ltd, IL&FS Engineering and Construction Company Ltd. and IL&FS Transportation Networks Ltd.
- IL&FS was originally promoted by the Central Bank of India, Unit Trust of India and HDFC, Orix Corporation of Japan, Abu Dhabi Investment Authority, LIC and SBI joined in later as co-promoters.

- India's northern region, especially Delhi, with the onset of the winter season has come to be associated with toxic atmospheric pollution putting to test the scheme piloted by the Union government to address the winter haze on measures to reduce burning of crop residue responsible for 20% of the smog.

### Reasons that has led to the situation

- Although road dust and pollution from heavy vehicles are primary sources, the burning of paddy stubble by farmers to clear their fields for the next crop further compounds the issue.
- low wind speeds due the geographical location of Delhi raises the particulate matter count during winter.
- According to the Ministry of Environment, Forest and Climate Change Crop stubble burning caused one-quarter of the air pollution;
- Rising cost of labour made the farmers adopt mechanized equipment. Even though it is much efficient, but it used to left behind much longer stalks of paddy which wasn't possible to be removed by traditional method of removing by hand.

### What is Stubble burning?

- It refers to the use of a controlled fire to clear the crop residue that remains in the paddock after harvest and could more accurately be called 'crop residue burning.

### Matters of concern

1. Many in the village are now suffering from respiratory problems and some have even contracted asthma. Clouds of ash and smoke can travel more than thousand kilometres
2. It weakens the soil fertility day by day.
3. Frequent husk burning may contribute to the formation of the brown clouds that affects the local air quality, atmospheric visibility and earth climate.
4. Open burning of husk (which is incomplete combustion) produces harmful smoke that contains harmful gases like Methane, Carbon Monoxide (CO), Volatile organic compound (VOC) and carcinogenic polycyclic aromatic hydrocarbons.

### Challenges

- Farmers, particularly those with land holdings of less than 5 acres, remain sceptical of the efficiency of these machines in productivity and fear that these machines could damage to the soil.
- The rising cost of diesel to run the straw management machinery is also discouraging.
- There is a urgent need to grow two crops round the year — wheat and paddy hence,

the fields need to be cleared quickly and stubble burning is the easiest, cheapest.

- Adding to the problem is the campaign with Slogans like “Kisan di majboorihai, nard nu agg lagauni zaroori hai (Farmers are helpless, they have to burn stubble)” are propagated continuously from loudspeakers on vehicles in villages across the state.

### Government response and alternatives

- The Punjab government is considering a proposal to make farmers ineligible for contesting Panchayat election if found guilty of stubble burning
- Environment Pollution (Prevention and Control) Authority, or EPCA, the Centre is partnering with Punjab, Haryana and Uttar Pradesh to provide farmers with a range of mechanized implements to clear their fields of paddy crop residue to prepare for sowing wheat.
- There is a 50% subsidy to farmers, and a 75% waiver to cooperative societies, agencies that rent out equipment, farmers' interest groups or Gram Panchayats to buy such machines on happy seeders, mulchers, RMB ploughs, zero till drills, super straw management system on combine harvesters etc.
- The National Green Tribunal has fixed the environment penalties for landowners involved into such activities.
- Punjab has set up a Paddy Straw Challenge Fund for the production of ethanol from paddy straw .
- Further, the Central government-owned Hindustan Petroleum Corporation Ltd (HPCL) has announced the setting up of India's first second-generation ethanol bio-refinery in Bathinda .
- According to the Ministry of Agriculture, the state nodal department can tie up with the banks for credit requirements of the beneficiaries paid through Direct Benefit Transfer (DBT).
- State Level Executive Committee (SLEC) and District Level Executive Committee (DLEC) shall oversee the implementation

of the scheme ensuring active participation of Panchayati Raj Institution.

### Conclusion

- Just making technological tools available may not be enough and there needs to be a proactive engagement to both persuade

## Fields of Concern

### What are the reasons for farm distress and what steps can be taken to improve farm sector?

- India's farm sector has multiple stress points ranging from irrigation to marketing of crops.
- Reasons for farm distress:
  1. Lack of adequate prices for farm output
  2. Rise in costs of inputs such as fertilizers and diesel
  3. The ground level procurement doesn't take place at stipulated support prices
  4. The MSP formula doesn't work for most crops except paddy and wheat in the absence of substantial direct procurement by the government.

## The new deal

### Introduction:

- On September 30, 2018, it was announced that the United States, Mexico, and Canada had come to an agreement to replace NAFTA with the United States–Mexico–Canada Agreement (USMCA).
- The USMCA is the result of the renegotiation of NAFTA that the member states undertook from 2017 to 2018, though NAFTA will remain in force until the USMCA is ratified by its members.
- NAFTA was replaced because the member countries like US felt that the trade deal was unfair and the deal had to be updated as per the dynamic changes.

### Significance of the new deal:

- Even though the deal does not do anything new to promote the cause of free trade among the North American nations, it achieves the objective of averting any significant damage to the international trade system. Sadly, this is the best anyone could possibly hope for in the midst of the global trade war that began this year.

and reassure farmers. Hence the availability of more number of machines and the broad-based zero-tolerance policy necessarily needs to be addressed to refine the crop residue -clearing process in an ecologically balanced fashion.

- Farm sector can be improved by:
  1. Effective implementation of price deficiency payment scheme and private procurement plan to ensure that farmers get the declared MSP for their crops
  2. The restrictive trading policies of the government need to be amended.
  3. Government interventions should promote productivity enhancements.
- The government has taken steps to address these issues by increasing the MSP of kharif and rabi crops. The government has also promised to double farmers' income by 2022. These steps are hoped to solve the farm distress.

- Under the new deal, Canada will have to allow American dairy producers to compete against locals, a move that will favour Canadian consumers. The U.S. agreed to retain dispute-settlement mechanisms as a compromise. This will help Canada and Mexico deal with protectionist duties imposed by the U.S., often under the influence of domestic business lobbies, against their exports.

### Areas of concern in the new deal:

- Not all amendments are however the prospects of free trade, many are simply hard compromises by Canada and Mexico to defuse trade tensions.
- The present one attempts to micromanage trade in a way that benefits specific interest groups at the cost of the overall economy.
- The new labour regulations and rules of origin will add to the cost of production of goods such as cars, thus making them uncompetitive in the global market.
- The USMCA mandates a minimum wage that is above the market wage on labour

employed in Mexico, yet another move that will make North America a tough place to do business.

- Foreign investors may now have fewer protections from unfriendly local laws as the accord does away with resolutions through multilateral dispute panels for certain sectors.

#### **Conclusion:**

- While it was uncertain a month ago on whether NAFTA would be completely

## **The algebra of dissent**

### **Introduction:**

- On many cases of Constitutional importance, we witness dissenting judgements, dissent is an essential feature of democracy. To heed the conscience of the court, and hence the nation, we must honour dissenting judgments

### **The importance of dissent:**

- Judiciary in our democratic Constitution acts as a custodian of the rule of law and justice. And hence dissenting judges represents the other perception involved in the case.
- Though majority opinion is what is considered as the final verdict, the dissenting judges shows that minority opinion cannot go unheard.

### **A history of dissent:**

## **A flight path with obstacles**

### **What is a drone?**

- A drone is an aircraft or flying device which does not have a human pilot onboard.
- Drones come in a broad range of shapes, sizes, and with various functions.
- Some of the sectors in which drones are used are Agriculture, Disaster prevention systems, Rescue operation, Public transport etc
- The ministry of civil aviation is the authority for adopting drone policy in the country.

### **INDIAN DRONE REGULATIONS**

scrapped, the new deal gives hope amidst trade war tensions and protectionist attitude.

- Note:
- NAFTA- The North American Free Trade Agreement is an agreement signed by Canada, Mexico, and the United States, creating a trilateral trade bloc in North America. The agreement came into force on January 1, 1994.

- In A.K. Gopalan v. State of Madras (1950), Justice Fazl Ali dissented, denying that 'procedure established by law' in the life and liberty provisions meant just any 'law', not due process. He ruled that fundamental rights cannot be put in isolated compartments but must be seen as a whole. Years later, it is Justice Ali's view that prevails today.
- It was the dissenting judges in Golaknath (1967) that eventually paved the way for the Basic Structure or Kesavananda case (1973) on the misuse of power.

### **Conclusion:**

But while we cannot but accept these judgments, this should not mean respectful disagreements cannot be made. What is disturbing is the reaction to some dissents. We must honour bona fide dissents which may rewrite the past for the future.

In India drones are broadly classified into 5 categories

- Nano-less than 250gm
- Micro-between 250 gm and 2kg
- Small-between 2 and 25 kg
- Medium-between 25 and 150kg
- Large-more than 150 kg
- There is very little regulation for flying a nano up to 50 metres height.
- Drones can't be flown near airports, military sites or in segregated airspace.
- They should be operated within visual line of sight (VLoS), during day time only, and upto maximum 400 ft. altitude.

- For flying in controlled Airspace, filing of flight plan and obtaining Air Defence Clearance (ADC) /Flight Information Centre (FIC) number shall be necessary.
- Air space has been partitioned into Red Zone (flying not permitted), Yellow Zone (controlled airspace), and Green Zone (automatic permission).

REQUIREMENT FOR VARIOUS DRONES				
ITEM/CATEGORY	NANO	MICRO	MINI & ABOVE	MODEL AIRCRAFT
Security clearance	Not required	Required	Required	Not required
UIN	Not required	Required	Required	Not required
UAOP	Not required	Not required	Required	Not required
Remote pilot approval requirement	Not required	Not required	Required	Not required
Approval time*	Not applicable	2 days (UIN)	2 days (UIN) 7 days (UAOP)	Not applicable
Height allowed**	50 feet	200 feet	200 feet (restrictions over 200 feet)	200 feet
Visual line-of-sight & day operations	Compulsory	Compulsory	Compulsory	Compulsory
Flight plan	Not required	Not required	Required	Not required
Local police clearance	Not required	Required	Required	Required
Area of operation	Uncontrolled airspace and indoor	Uncontrolled airspace	Controlled and uncontrolled airspace	Educational institution premises

UIN: Unique Identification Number; UAOP: Unmanned Aircraft Operator Permit; \*For UIN/UAOP; \*\*above ground level;

### PROBLEMS ENCOUNTERED

- Except nano category, all other drones must get a unique identification number (UIN), with a long list of documentation including security clearances from the Ministry of Home Affairs.
- After obtaining UIN, the operator should apply for an Unmanned Aircraft Operator

## THE SCOPE OF CONSTITUTIONAL MORALITY

### What is manual scavenging?

- Manual Scavenging is the manual removal of human excreta from dry latrines and sewers.
- People engaged in this activity are the worst victims of untouchability.
- Socio-Economic and Caste Census (SECC) released in 2015, states that there were around 0.18 million manual scavenging households in rural areas.
- A government survey identifies 12,226 manual scavengers in 12 states. Most septic tanks are emptied manually in Indian cities.

### Does Law Safeguards?

- The 'Manual Scavengers and Construction of Dry Latrines (Prohibition) Act' enacted

Permit (UAOP) and get the permission from local police station 24 hours prior.

- With many government agencies involved in allowing permission, it is inevitable that there will be delays and arbitrary actions.
- The identified areas for testing and demonstration are far off from the technology and development hubs.

### DRONE ECONOMY

- The drone economy in India has a possibility of about \$1 trillion market space.
- With other world powers such as China (\$9 billion), US (\$2.05 billion) have a great share in drone market in coming years.

### WAY FORWARD

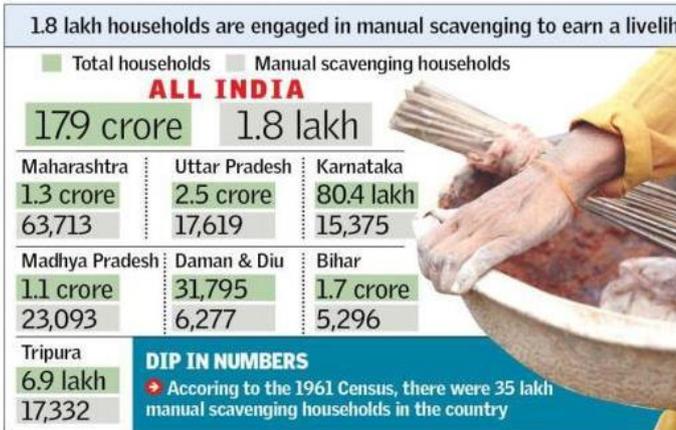
- With other world countries moving at rapid speed in drone market, India has to reduce its red-tapism and have a balanced regulation to move forward in drone sector.
- Large part of paper documentation must be nullified to make more start-ups involved in the sector.
- Missing on early working of the documentation will make India to take a step back in the competitiveness of the drone sector

in 1993 by the Government of India prohibits manual scavenging in the country.

- Employing people to the profession carries possible imprisonment penalties for up to one year and fine of 50,000 rupees.
- The Prohibition of Employment of Manual Scavengers and Rehabilitation Act (2013) aimed to introduce safety measures for manual scavengers and encouraged their rehabilitation.
- Protective gear like gloves, gas masks and boots are often not provided by employers, in violation of the 2013 law, leading to diseases and even death.

- The 2013 law also does not constitute what is a “protective gear”, that has to be provided by the employer.

### A PERVASIVE SCOURGE



### THE UNTOUCHABILITY FORM

- People engaged in this activity are the worst victims of untouchability.
- A large part of social exclusion has been experienced by the manual scavengers.
- The high gender pay gap is seen among them as stated in the report by report by Human Rights Watch (HRW).
- They also endure side-effects like constant nausea and headaches, respiratory and skin diseases, anaemia and carbon monoxide poisoning.
- Casteist discrimination is the one which forms the basis of manual scavenging as untouchability.
- 90% of them are said to be women, where the rehabilitation is said to be necessary to them.

### THE JUDICIAL ANGLE

- Abolition of untouchability in all its forms is a constitutional right and courts should take appropriate steps to uphold them.
- As manual scavenging is seen as a majoritarian scenario, courts should

## Avoiding the currency basket case

### What is in News?

- The Indian rupee was once a multilateral currency and its usage was prevalent in multiple countries across the Indian Ocean in places as Java, Borneo, Macau, Muscat, Basra and Zanzibar.

involve themselves to uproot them from the society, as it did before. For eg: section 377,497 verdicts by SC.

- As quoted by former CJI the constitution consists of **Individual autonomy and liberty; equality without discrimination; recognition of identity with dignity; right to privacy.**
- To uphold these four corners of constitution the uproot of this social evil is inevitable.
- This practice must be removed in order to remove the inequality and maintain the structure of political democracy in the country.

### WAY FORWARD

- Proper technological intervention is required to uproot this practice.
- The available acts should be properly implemented and actively monitored.
- Swacch bharat abhiyan plans must be framed by taking in account of the manual scavengers also.
- A strong political will is required to reform the system, and rescue the thousands from a society that denies them basic dignity and rights.
- The National Policy on Faecal Sludge and Septage Management, 2017, states that employment of manual scavengers is illegal, but it does not suggest mechanical alternatives to unclog septic tanks, drains and sewers.
- The policy with alternative arrangement at national level should be framed.
- Bio-digester toilets can be used.
- They are designed to convert human waste into gases and manure.

- The historic sea trade with the gulf through the seas had a familiarity with the rupee for over five centuries, with Oman utilizing the ‘Gulf rupee’ till 1970.

### Historical background of rupee

- The accession of George V to the throne in 1911, of the British Raj, led to the issuance of a new rupee coin.
- The colonial rupee was used to its maximum advantage in the Mughal rupee's popularity, facilitated by trade, migration and the Raj's sovereignty.
- The annexation of Sindh, Ceylon and Burma further encouraged the primacy of the rupee in these areas along with a number of Indian merchant communities that had established themselves in such regions, promoted its convertibility.
- Even after Independence, Dubai and other Gulf states were using RBI-minted Gulf rupees until 1966.
- Between the 1950s and 1970s, a number of Gulf businesses bought cheaper gold in the Gulf in rupees and smuggled it to India.
- Only the devaluation of the Indian rupee in 1966, after the 1965 war, led to such nations switching to their own currencies.
- At present only Nepal and Bhutan regularly conduct bilateral trade with India in rupees.

#### About rupee

- The rupee's valuation is often of concern.
- In 1947, the rupee-dollar rates was at Rs. 3.30.
- The devaluation (the reduction in the official value of a currency in relation to other currencies) of the rate in 1966 raised it to Rs. 7.50, reaching Rs. 32.4 by 1995.
- This decline was speeded up by wars with Pakistan and China, the adoption of Five Year Plans by the Indian economy, requirement of foreign loans, political instability and the Oil Price Shock of 1973 due to which countries could no longer recover the U.S. dollars in their foreign exchange reserves for gold.
- The rupee value has been weakening with the higher oil prices. The falling value of rupee kept the interest rates high which negatively impacted the foreign investments in outflows from stocks and bonds as the dollar turned more attractive.

- The ongoing U.S.-China trade war, Iran sanctions and further upward movement in oil prices will continue to test the rupee's valuation.

#### Formalizing the Indian economy can be brought across by

- Checking on the depreciation of rupee just prior to the election date. A weak rupee means politicians and others can get more rupees for their illegal dollars held abroad needed to fight elections.
- India's black money strategy should consider four pillars
  1. Restructuring the tax policy to increase the efficiency
  2. Reform the vulnerable sectors
  3. Support a cashless economy
  4. Create effective and credible deterrence in foreign inflow
- Administrative agreements with countries like the U.K. and Switzerland which can offer mutual tax sharing should be encouraged.
- It is important to create a remittance (transfer of money by a foreign worker to an individual in their home country) database detailing company transfers out and NGO transfers into India, all reporting to the Financial Intelligence Unit (FIU).
- The Direct Tax Administration's Directorate of Criminal Investigation should be provided the right IT training, infrastructure and funding to become an effective brake.
- The audit cycles for income tax, service tax and excise tax departments should be aligned, helping the Large Taxpayer Unit (LTU) become more effective.

#### Way forward

- Rupee remains behind the Chinese Yuan (The renminbi is the official currency of the People's Republic of China. The Yuan is the basic unit of the renminbi) being positioned through a variety of multilateral trades, institutions (the Belt and Road Initiative, the Asian Infrastructure Investment Bank) for which it campaigned hard for the inclusion in IMF's benchmark

currency basket in 2015, to be considered as “freely usable”.

- The RBI has adopted a gradualist approach –through masala bonds (rupee denominated overseas bonds) and allowing foreigners to invest in rupee debt onshore.
- The rupee has transformed from a largely non-convertible pegged currency (whose

exchange rates are fixed usually against the dollar) before 1991 to a managed float.

- The rupee is currently not even in the top 10 traded currencies.
- To restore the rupee’s multilateral nature, we must unshackle its usage. Internationalization of the rupee will serve India well helping the widespread use of a currency outside its borders.

## Eyes on India

### Why in News?

- Currently, China’s Belt and Road Initiative is reshaping the region’s geography, with roads and railways travelling across the Eurasia (combined continental landmass of Europe and Asia) and new ports dotting the Indian Ocean basin.
- China continues with militarization of the South China Sea in spite of the negotiations towards a code of conduct.
- Japan, South Korea, Taiwan, and Australia have all unveiled strategies to diversify their economic interdependence, away from mainland China and towards Southeast Asia and India which will enable the center of gravity to shift towards Southeast Asia and India.

### Unveiling strategies

- Japan has found itself in an unexpected leadership position by being involved in correcting the disorders across the Trans-Pacific Partnership covering tariffs on goods and services, intellectual property (IP) rights, e-commerce rules, labor and environmental standards, dispute resolution mechanisms, and many other aspects of global trade.
- Japan is now contemplating constitutional revisions that would enable it to play a more noticeable military role.
- It is important to note that Article 9 of the Japanese Constitution, outlaws war as a means to settle international disputes involving the state.

### What led to this shift in policy?

- The ongoing trade and tariff war between the U.S. and China is one reason.

- Beijing’s use of its economic muscle for political purposes.
- instances which come to light in this regard are
  - a) Suspending rare earth metal exports to Japan in 2010
  - b) Punishing a major South Korean corporation for Seoul’s decision to install a missile defense system in 2017.

### Way forward to implementation of strategies

- Japan’s Free and Open Indo-Pacific strategy is meant to diversify investments to more promising markets in Southeast Asia, India, and Africa.
- While the policy is focused on Southeast Asia, it also “makes India Korea’s key partner for cooperation”.
- Taiwan, which is a G20-sized, has announced a New Southbound Policy with significant accompanying investments in India by Taiwanese electronics manufacturers.
- the Australian government has commissioned an ambitious India Economic Strategy goal of making India its third-largest investment destination and export destination by 2035.

**The G20 (or Group of Twenty)** is an international forum for the governments and central bank governors from Argentina, Australia, Brazil, Canada, China, the European Union, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom, and the United States that aims to discuss policy pertaining to the promotion of international financial stability.

## Conclusion

- While policies are not driven by short-term necessities, political concerns create economic preferences. Experts believe that the stars are aligning in Asia for the

## Focus on inflation

### Why in News?

- RBI keeps the interest rate unchanged by 6.5% ignoring the other pressures on rupee by keeping the repo and the reverse repo unchanged.
- this surprised the markets by going against the consensus turning its policy stance to hawkish (high interest rates that keeps the inflation on check)
- Monetary policy committee (MPC) has changed its policy stance from 'neutral' to 'calibrated tightening'.

### What is calibrated tightening?

- According to this the rates could go up or stay steady in the coming months or may in a span of 2-3 years.

### What are the other pressures on rupee?

- As the RBI follows a bimonthly monetary policy, it revises its interest rates in order to bring the inflation under control. With strict focus on inflation the question is if RBI can simultaneously manage various other risks to financial stability. RBI has put inflation control as its legal mandate ignoring the other sources that put pressure on the rupee that are :

1. Rupee weakening
2. Inflation due to increase in the fuel prices
3. Foreign investments: There will be less investments made by Foreign investor as the rupee value falls, thereby affecting the gross domestic product (GDP) which represents economic growth.
4. US federal hike: The Indian Rupee will considerably depreciate if US Fed increases the interest rate, that will increase the cost of imports.

acceleration of India's economic growth. Along with it Investors backed by their governments, are increasingly focused on the Indian market.

5. Bond yields: Bond yield is the amount of return an investor earns on a bond As bond prices increase, bond yields fall

### Objectives of the monetary policy:

- Range of maintaining inflation must be 4+2 percentage.
- Economic growth that is dependent on investment are dependent on interest rates. If Interest rates are low ,then the investment will increase .
- For an open economy like India which supports export and import, exchange stability must be important.
- To bring price stability by curbing inflation
- Full employment
- Having a credit control by controlling inflation through price stability (stable price level of goods and services) and financial stability (equalizing demand for money with supply of money)
- reduction in inequalities of income and wealth
- financial inclusion

### Impact of the decision:

- inflation may be under control
- Calibrated tightening may in favour of government. when interest rates decrease borrowing at cheaper rates will be easy.
- will help in the elections budgetary in 2019
- there is no surety how it can ease the rupee depreciation.
- Quantitative easing will give more cheaper money to economy and hence people will go keeping money in US banks
- US federal reserve's increase in Interest rates further may force RBI to increase Interest rate

### What are the piecemeal measures taken?

- Easing foreign investment norms: The Reserve Bank has eased investment norms

for foreign portfolio investors (FPIs) in debt, especially into individual large corporates, to help attract more overseas flows and curb fall in the

- Intervention in the forex market: under the macroeconomic policies set by the government the intervention helps build

## Next step at Gir

### Why in News?

- There is a need to create a geographically separate habitat and population for the big cat of Gujarat's Gir sanctuary which is the last of the Asiatic lions in the wild.
- The Supreme Court has noted that the death of so many lions was a serious matter and has asked the Central government to look into it.

### About Gujarat's Gir sanctuary

- Gir Forest National Park and Wildlife Sanctuary, also known as Sasan Gir, is a forest and wildlife sanctuary near Talala Gir in Gujarat, India.
- It is part of the Kathiawar-Gir, the largest dry deciduous forests ecoregion in western India.
- It was a part of the Nawab of Junagarh's private hunting grounds.
- Perennial rivers: Hiran, Shetrunji, Datardi, Shingoda, Machhundri, Godavari and Raval and it also includes the biggest reservoir in the area, the Kamleshwar Dam which is dubbed 'the lifeline of Gir'.
- Carnivores: Asiatic lion, Indian leopard, jungle cat, striped hyena, Golden jackal, Indian and Ruddy mongoose, and honey badger.
- Herbivores: chital, nilgai, sambar, four-horned antelope, chinkara and wild boar.
- Smaller mammals: porcupine, hare are common, pangolin.
- Reptiles: mugger crocodile, Indian cobra, tortoise and monitor lizard which inhabit the sanctuary's bodies of water.

### About Asiatic lions

- The Asiatic Lion, which was once found in southeastern Europe, North Africa, the

reserves, stabilize the exchange rate and to correct incorrect arrangements.

### Way forward

- to focus on export oriented and import substitution for service and manufacturing sector
- If the crude prices continue to increase, RBI may have to come with rate increases.

Middle East and India, today, is restricted to the Saurashtra region of Gujarat in India.

- In 2008, Asiatic lions were listed as "Endangered" on the International Union for Conservation of Nature's (IUCN) Red List of Threatened Species.
- The Asiatic lion (also known as the Indian lion and Persian lion) is much smaller in size than its African subspecies.
- World Lion Day celebrations are organised by the Wildlife Division, Gir Sasan, on August 10.

### Present report on Asiatic Lions

- The magnificent Asiatic lion is under threat
- Twenty-three lions have died in as many days in the eastern part of Gir.

### Why SC in 2013 asked for relocation?

- It issued an order to relocate lions from Gujarat to Kuno sanctuary in Madhya Pradesh as a check against an outbreak of possible epidemic most likely to be infectious, some due to poisoning and infighting or natural calamity that might wipe off the entire species.

### Why is Gujarat reluctant to relocation of its lions?

- Gujarat has been unwilling to part with its lions, calling them "its pride" in an affidavit.
- They claim that lions are the metapopulation saying that even though they are geographically separate but have interaction and exchange of individuals spread over the several locations in the greater Gir region.

### What are the challenges?

- Wild animals are subject to state politics.
- Asiatic lion has been restricted to only one single habitat, i.e. the Gir National Forest

and an outbreak of a possible epidemic or natural calamity can be fatal to a small population with limited genetic strength which is more vulnerable to diseases and catastrophes.

- Even though the wildlife conservation concerns itself to maintaining ecological process and reduce threats ,it does not entail treating wild animals for disease (in a way done for domestic animals)which can go against the process of natural selection.
- Artificial medical treatment doesn't have long term sustainability.

#### What are the steps taken?

- When wild animals go extinct locally, they are reintroduced — as in the case of tigers in Sariska, Rajasthan.
- When hungry, they are fed artificially, and even provided salts as supplements, an example being the Hangul (Red deer) population in Dachigam, Jammu and Kashmir.

## The creamy layer of social justice

#### Why in News?

- The Supreme Court's recent ruling, removed the government's responsibility to collect quantifiable data on backwardness but rationally said that the creamy layer test would be consistent with the equality principle.

#### What is creamy layer?

- The term creamy layer was first coined by Justice Krishna Iyer in 1975 in State of Kerala vs NM Thomas case, wherein he observed that the benefits of reservation are snatched away by the top creamy layer of the 'backward' caste or class, thus keeping the weakest among the weak always weak.
- They are not eligible for government sponsored benefits in education and employment.
- The candidates belonging to creamy layer are taken under "General Category"

- In other parts of India, wild animals are funnelled through artificial trenches, barriers and fences.This is wildlife conservation in the age of man, where protected areas sometimes resemble zoos.

#### Way forward

- Role of wildlife managers:
  1. reduce unnatural threats, not unnaturally prolong life.
  2. reduce the drivers of disease, which includes controlling feral dog populations
- There are spatial limitations in this industrialised State. but, a geographically separate population of Asiatic lions needs to be created.An option is the Barda wildlife sanctuary but Barda is close to Gir, and this cannot be confused with creating isolated populations.
- Colonizing new habitats outside the Gir landscape within the State.

- The creamy layer is only applicable in the case of Other Backward Castes and not applicable on other group like SC or ST.

#### In nut shell:

- There are certain expectations on any verdict on public policy by a constitution bench of the Supreme Court. They are
  1. A verdict must hold whether the underlying principle(s) is/are consistent with the Constitution of India.
  2. A verdict must end governance paralysis.
    - Critics believe that unfortunately, the court didn't accomplish this objective in its recent verdict **in Jarnail Singh v. Lachhmi Narain Gupta case.**
    - The crux of the issue is whether or not the 'creamy layer' among SC/STs should be barred from obtaining promotions through reservations.

#### Background:

- In a verdict in 2006 in the M. Nagaraj v. Union of India case, the Court had observed the need to collect quantifiable data.

- However, in the recent judgement, the court set aside the requirement to collect quantifiable data as it ignored the reasoning of a nine-judge bench in Indra Sawhney (1992) that any discussion on creamy layer “has no relevance” in the context of SC/STs.
- Critics allege that since the court took more than a decade to correct an anomaly in the Nagaraj case that brought in creamy layer filter for promotions for SC/ST employees, this resulted in thousands of employees being denied their due promotions.
- With relevance to the constitutional provisions and the verdict in Indra Sawhney case, it is clear that the SC/STs are given job reservations not because they are poor but because they are excluded.

#### At present:

- The matter can't be seen to have received the proper verdict as a two-judge bench of the top court is considering a public interest litigation (PIL) filed by the Samta Andolan Samiti.
- It seeks the removal of creamy layer among the SC/STs in job reservations — a matter already settled by a nine-judge Constitution Bench long ago and has just been settled by a five-judge Constitution Bench.

#### Recent verdict on the reservation in promotions

The Supreme court in its recent verdict in Jarnail Singh v. Lachhmi Narain Gupta held that the government need not collect quantifiable data to demonstrate backwardness of public employees belonging to the Scheduled Castes and the

### No sweeping change –On Swachh Bharat Mission

#### Why in News?

- India's Swachh Bharat Mission has received global praise in closing the sanitation gap of nearly 60% of the rural population who were not having access to a toilet at home in 2014.

#### Background

Scheduled Tribes (SC/STs) to provide reservations for them in promotions.

#### Need for reservation and a creamy layer provision: Article 335

1.The first part of Article 335 stipulates job reservations for SC/STs as a right of representation, not as a welfare measure.

2.the creamy layer among SC/ST employees helps fulfil the second part of Article 335 that requires maintaining the “efficiency of administration”.

#### Right to opt out

- an SC/ST candidate does not have the right to reject reservations
- One is merely required to state whether he/she belongs to the SC or the ST category and a response in affirmation automatically puts them in the queue for reservations
- It is also a punishable offence to withhold one's caste status while seeking government employment
- A simple administrative decision to allow SC/ST candidates to compete in the general category would have helped thousands to leave the space for the less privileged among them
- Correcting only the second anomaly, the court has now held that the government need not collect quantifiable data to demonstrate backwardness of SC/STs.

#### Conclusion

India needs a period of ‘benign neglect’ for changes in matters related to caste as well as the constitutional provisions aimed at getting rid of the rough edges of caste discrimination. The policies help project the community as normal Indians. It is a mere recognition of the fact that socio-economic progress moves by generations. Today's creamy layer are yesterday's underprivileged.

- Prime Minister Narendra Modi announced a Swachh movement in 2014 and four years later the outcomes show that achieving social change is neither difficult nor far.

#### Important highlights of the Swachh Bharat Mission achievement

- At the Centre, the SBM enjoys the highest priority, and a ₹16,400-crore fund was raised for it during 2015-17.
- On Gandhi Jayanti this year, the SBM's Gramin wing declared to have constructed 86.7 million Individual Household Latrines and raised sanitation access to 94% in rural areas; 5,07,369 villages are now 'open defecation free'.

### Challenges to full-fledged implementation

- In some States, such as Rajasthan, Uttar Pradesh and Madhya Pradesh, independent verification shows that traditionally oppressed communities continue to manually remove filth from dry latrines used by the upper castes.
- It shows that the very evil that Gandhi wanted to see changed, still persists.
- Waste volumes continue to grow as economic growth has led to increased consumption.

## In harmony with Mother Nature

### Why in News?

- The United Nations honoured Prime Minister Narendra Modi with the Champions of the Earth Award in recognition of India's proactive role in mitigating climate change.

### Human beings, nature and the present situation:

- Human beings and nature have a very special relationship. Mother Nature has nurtured and nourished us.
- The first civilizations were established on the banks of rivers. Societies that live in harmony with nature flourish and prosper. Today, human society stands at an important crossroads. The imbalances between our greed and necessities have led to grave ecological imbalances.

### Learning from the Past:

- Respect for nature is at the core of India's traditions. The Atharvaveda contains the Prithvi Sukta, which contains unparalleled knowledge about nature and the environment.

- The laws on municipal solid waste, protection of water sources and pollution control are just not being enforced.
- the infrastructure to manage waste scientifically are inadequate.

### Way forward

- Besides making sanitation a movement, SBM should have a broader vision of what constitutes cleanliness.
- Besides ending manual scavenging that kills so many workers each year, the Swachh Bharat Mission must ensure the manual cleaning of septic tanks.
- There is a need for a close audit of the outcomes and a better legal action.
- Without full commitment, there is little chance of meaningfully achieving the Sustainable Development Goals on water and sanitation anytime soon.

- The ancients write about the Panch Tatvas – Prithvi (Earth), Vayu (Air), Jal (Water), Agni (Fire), Akash (Sky) – and how our life systems are based on the harmonious functioning of these elements.
- Mahatma Gandhi wrote extensively on the environment and even practised a lifestyle where compassion towards the environment was essential. He propounded the Doctrine of Trusteeship, which places the onus on the present generation, to ensure that our coming generations inherit a clean planet.

### Three things will determine how we as a society can bring a positive change:

#### Public Awareness:

- We need to talk, write, debate, discuss and deliberate as much as possible on questions relating to the environment which is vital to encourage research and innovation on subjects relating to the environment.

#### Proactiveness

- 1.Swachh Bharat Mission is proactively linked to a sustainable future. Over 85

million households now have access to toilets for the first time. Over 400 million Indians no longer have to defecate in the open.

- 2.Ujjwala Yojana too has significantly reduced indoor air pollution due to unhealthy cooking practices that were causing respiratory diseases.
- 3.The Namami Gange Mission is helping India move at a quick pace in cleaning The Ganga, which is India's lifeline.
- AMRUT and the Smart Cities Mission are our urban development initiatives balancing urban growth with environmental care.
- 5.More than 13 crore soil health cards distributed to farmers are helping them make informed decisions and improve the health of our land.
- Green Skill Development Programme will be skilling about seven million youth in environment, forestry, wildlife and climate change sectors by 2021thereby creating opportunities for skilled jobs and

entrepreneurships in the environment sector.

- 7.The Ujala Yojana has led to the distribution of nearly 31 crore LED bulbs leading to the reduction in electricity bills and the CO2 emissions.

#### **Climate justice**

- While the world is talking about climate change, the call for climate justice has also reverberated from India. It includes safeguarding the rights and interests of the poor and marginalised sections of society, who are often the biggest sufferers from the negative impacts of climate change.

#### **Way forward**

- To ensure and exercise a better human empowerment we must have a clean environment. It will not only determine our well-being but also of the generations who will inhabit our planet after us. The world needs to shift to a paradigm of environmental philosophy that is anchored in environmental consciousness rather than merely in government regulations.

### The Big Picture – On Bank Mergers & Policy Watch - Merger of Banks

#### Introduction:

- State-owned Bank of Baroda, Vijaya Bank and Dena Bank will be merged to create the country's third largest lender as part of efforts to revive credit and economic growth.
- The move follows top lender State Bank of India last year merging with itself five of its subsidiary banks and taking over Bharatiya Mahila Bank, a niche state-run lender for women.
- Announcing the plan Finance Minister Arun Jaitley said the merger will make the banks stronger and sustainable as well as increase their lending ability. Giving the context of the merger, he said bank lending was becoming weak, hurting corporate sector investments.
- The government owns majority stakes in 21 lenders, which account for more than two-thirds of banking assets in the Asia's third biggest economy.
- But these PSU banks also account for the lion's share of bad loans or NPAs plaguing the sector and need crores of rupees in new capital in the next two years to meet global Basel III capital norms.
- The envisaged amalgamation will be the first-ever three-way consolidation of banks in India, with a combined business of Rs 14.82 lakh crore, making it the third largest bank after SBI and ICICI Bank.
- Post this merger, the number of PSU banks will come down to 19.
- The consolidation will help create a strong globally competitive bank with economies of scale and enable realisation of wide-ranging synergies.
- Leveraging of networks, low-cost deposits and subsidiaries of the three banks have the potential of yielding significant synergies for positioning the consolidated entity for substantial rise in customer base, market reach, operational efficiency, wider bouquet of products and services, and improved access for customers.
- The merged entity will have better financial strength and its net NPA ratio will be at 5.71 per cent, significantly better than public sector bank (PSB) average (12.13 per cent).
- Provision Coverage Ratio (PCR) would be better at 67.5 per cent against average of 63.7 per cent and cost to income ratio of the combined entity would come down to 48.94 per cent as compared to average of 53.92 per cent.

#### Positive aspects of the merger:

- The decision taken by 'Alternative Mechanism' to amalgamate three banks would create a mega lender which will be stronger and sustainable.

### The Pulse - Anti-Dowry Law: Implementation & Concerns

#### Introduction:

- Dowry is undoubtedly a big social evil and several efforts have been made to tackle this evil practice.
- The movement against dowry demands and harassment gained momentum in 1970s and reached its peak in 1980s.
- In December 1983 Parliament passed the Criminal Law (Second Amendment) Act thus introducing section 498 A to the Indian Penal Code.
- The new law proved effective in tackling the menace of dowry and provided much needed protection to the women who were victims.
- However, with the passage of time concerns were raised over the misuse of this law prompting the Supreme Court to put in place guidelines for arrest procedure and setting up of Family Welfare Committees to scrutinise the complaints under 498A.
- Recently **Supreme Court modified its previous order by doing away with the provision of Family Welfare Committee.** The Apex court also expressed concern over the complaints of misuse of this law.

#### What is IPC Sec 498A?

- Passed by Indian Parliament in 1983, Indian Penal Code 498A, is a criminal law (not a civil law) which is defined as follows,
- "Whoever, being the husband or the relative of the husband of a woman, subjects such woman to cruelty shall be

punished with imprisonment for a term which may extend to three years and shall also be liable to fine. The offence is Cognizable (register and investigate the complaint), non-compoundable (complaint can't be withdrawn) and non-bailable (you have to appear in court and get bail from the judge).

#### Why sec 498 A is essential?

- A total of 24,771 dowry deaths have been reported in India from 2012-2014. Activists suggest reason behind low conviction in dowry-related cases is delay in judicial process.
- In spite of laws that are supposed to serve as a deterrent, India continues to see a rise in the number of reported dowry-related deaths. More than 8600 cases where women died from dowry-related harassment were registered in India in 2011, up from 8391 in 2010.

#### Concerns of misuse:

- 498a can only be invoked by wife/daughter-in-law or her relative. Most cases where Sec 498A is invoked turn out to be false (as repeatedly accepted by High Courts and Supreme Court in India) as they are mere **blackmail attempts** by the wife (or her close relatives) when faced with a strained marriage. In most cases 498a complaint is followed by the **demand of huge amount of money** to settle the case out of the court.
- In some cases to ruin the name and reputation of the husband and his family.

## In Depth - Destination India

#### Introduction:

- India has always been a popular tourist destination. In 2017, inbound tourist volume grew at a rate of 9%.
- For the first time, around 10 million foreign tourists visited India during the past year.
- With a view to promote and boost tourism in India, the Ministry of Tourism, in collaboration with several central ministries and stakeholders, has organised the second edition of Paryatan Parv.
- With tourism becoming a promising economic sector, let's explore the reasons behind the booming tourism market in India, the multiple tourism opportunities in the country and the need to further improve the tourism experience in this great land of ours.

#### Possible safeguarding options

- The police has to act dispassionately and the lawyers should not misguide the litigants.
- The police would decide whether or not it should act — the assumption being that this would filter out frivolous cases and instances of the law's misuse.
- As said by SC judge CK Prasad in 2014, the police should not make any arrests under 498A without subjecting the complaint to the 9-point checklist provided under Section 41 of the IPC. Sec 498A should not be used as weapon by disgruntled women.
- In 2003 the Malimath Committee on Criminal Justice Reforms too suggested that Section 498A be made bailable and compoundable (where the case can be withdrawn and settled by mutual agreement between the parties). "...a less tolerant and impulsive woman may lodge an FIR even on a trivial act... innocent persons may languish in custody," wrote Justice Malimath.

#### Conclusion

- In a genuine case of dowry harassment, Sec 498A will be used with full authority. Dowry is a big social evil and it needs to be eradicated and every measure under the law should be taken to prevent it. But here the question is not of dowry prevention. It is using arrest as a source of punishment. The police should not arrest a person unless investigation is complete.

#### Potential of tourism sector in India:

- According to the **World Tourism and Travel Council (WTTC) Report 2018**, India is the 7<sup>th</sup> largest tourist sector in the World and is likely to become 3<sup>rd</sup> largest by 2028.
- Tourism currently employing 42.9 million people by 2018 is likely to add 1 crore job by 2028.
- The contribution of Tourism to GDP which is 9.4% of GDP at 2017 is expected to rise by 6.9% to 9.9% by 2028.
- The employment opportunities that tourism offers are 8% in 2017 is likely to grow by 8.4% by 2028.
- The medical tourism is likely to grow by 22-25% and yield a revenue of 9 billion dollars by 2020.

- Increased tourism will give rise to increased employment, exports, rural livelihood and job opportunities.
- India which is blessed with diversified geographical features like 7000km long coastline, deserts, snowfall and rainforest and diversified culture like mosques, temples and church has immense tourist potential to offer to the world.

#### Types of Tourism available in India:

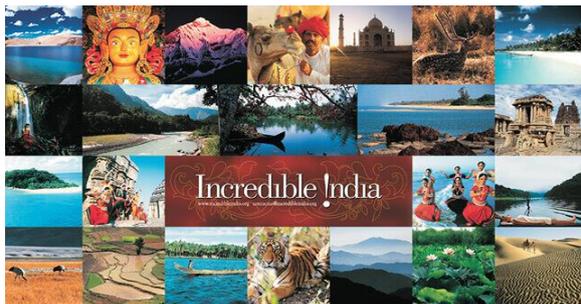
1. Medical tourism
2. Business tourism
3. Adventurous tourism
4. Ecological tourism
5. Pilgrimage tourism

#### Government of India's Effort to promote Tourism:

##### 1. Paryatan Parv:

- The event focuses on the people experiencing the diversity of India.
- The event reinforces the principle of "Tourism for all".
- It focuses on all sites in all states.
- **Dekho apna Desh-**
- 1. To encourage domestic tourism. Encouraging Indians to tour their own country.
- 2. Tourism in all sites in all states.
- 3. Encourage people participation.
- 4. Enable people understand and celebrate our own diversity.
- **Atithidevo Bhava-** Honouring guest equal to god.

##### 2. Incredible India Campaign:



## Policy Watch- Smart Fencing of Borders a Pilot Project

#### Introduction:

- India has 1500 km long land border and 7500km long coastline border.
- The porous border of India poses threats in form of longest border, smugglers, drug peddling and fake currency.

- Incredible India is the name of an international tourism campaign maintained by the Government of India since 2002, to promote tourism in India to an audience of global appeal.
- The tourism ministry engaged the services of advertising and marketing firms to create a new campaign to increase tourist inflows into the country.

#### 3. Efforts of Ministry of Tourism:

- 2014 e-Visa norms were eased and now 163 countries are under this facility. And Visa-on-arrival facility is also provided to some of the country citizens.
- Interactive sessions and workshops are conducted involving all the stakeholders regularly on skill development and innovation in tourist sector.
- Recently Government conducted "India Tourism Mart" the 1st ever mart in Delhi to promote both domestic and the international tourists.
- The UDAAN and Swachh Bharath Mission are other efforts of the government to promote tourism.

#### Areas that need focus:

- Promoting tourism means not only focusing on infrastructure and mobility the focus should be on increasing investment on human resource development.
- Attack on the tourist especially women needs to be taken care of.
- Tourism has to be made a beneficial sector and involve local population in promoting the local handicraft, food and clothing.

#### Conclusion:

- India aims to make India's tourism share as 1% of the world's tourism.
- Better connectivity, security and hospitality has to be focussed to promote tourism.

- India's relation with Bangladesh and its border guarding force, BGB, are very friendly at present, and their priority is to install these smart gadgets, as part of the comprehensive integrated border management system (CIBMS), along the Pakistan frontier first.
- The border guarding force is using a number of latest gadgets and technology to technology-enabled this area on the eastern side.
- They have been integrated and a CCTV-like feed will be given to the border post and

immediate action can be taken against any intrusion attempt.

### Conclusion:

- Though the smart fencing projects are successful in Israel and USA, the terrain of India is longer and different which has different challenges.
- There can be intrusion from the river and underwater.
- It is impossible for the manpower to keep watching the border always to keep away intrusion and hence this smart fencing will go a long way in guarding the border.

## In Depth - The Machine Age: 2025

### Introduction:

- It's true that technology has brought tremendous, unstoppable changes to society. Machines can do multiple things faster and better than humans.
- And that's why, with the advancement in digital technologies and automation, fears about workers' futures have increased.
- A latest research from the World Economic Forum forecasts that by 2025, machines will perform more current work tasks than humans.
- In the next seven years, more than half of all current workplace tasks will be performed by machines as opposed to 29% today.
- This transformation will have a profound effect on the global labour force. But, in terms of overall numbers of new jobs, the outlook is positive. The WEF report says 133 million new jobs are expected to be created by 2022 compared to 75 million that will be displaced.

### World Economic Forum Report on machines in workforce:

- 2018-Humans perform on an average 71 % of the total human task hours.
- 2025- Human task expected to drop to 48% the machines would do 52% of the task.
- Machines will replace the humans in work like accounting, client management and services.

### World Economic Forum Report on future of employment:

- With development in automation technology, AI could see 75 million jobs being displaced.
- 133 million new roles may be created and 58 million new jobs likely by 2022.

- Jobs like design, create and critical thinking is likely to resist AI.
- WEF says a huge job transformation in going to be there and hence it is necessary that the Government of all nations have to create an enabling environment to reskill and upskill the labour to deal with the new kind of jobs.

### What is artificial intelligence?

- Artificial intelligence (AI), sometimes called machine intelligence, is intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans and other animals.
- In computer science AI research is defined as the study of "intelligent agents": any device that perceives its environment and takes actions that maximize its chance of successfully achieving its goals.
- It is a branch of computer science which deals with creating computers or machines as intelligent as human beings.
- The term was coined in 1956 by John McCarthy at the Dartmouth conference, Massachusetts Institute of Technology.
- It is a simulation of human intelligence processes such as learning (the acquisition of information and rules for using the information), reasoning (using the rules to reach approximate or definite conclusions), and self-correction by machines, especially computer systems.

### Working of Artificial Intelligence:

- Artificial Intelligent systems are specifically designed with software that enables the computer to process information through deep learning and make decisions.
- Deep learning (also known as deep structured learning or hierarchical

learning) is part of a broader family of machine learning methods based on learning data representations, as opposed to task-specific algorithms. Learning can be supervised, semi-supervised or unsupervised.

#### Types of AI:

1. **Reactive Machine AI-** Cannot use past experience to decide the future action.
2. **Limited Memory AI-** Works on the pre-programmed knowledge and past experiences.
3. **Theory of Mind AI-** Machines capable of interpreting and inform the information. The information can be reproduced when needed based on observation mode.
4. **Self Awareness AI-** Most advanced of all AI. Machines can interpret the world. Possess consciousness, feelings and emotions and is able to interpret others feelings. But this AI has not yet been developed.

#### Challenges and risks of AI:

- The decrease in demand for human labour due to machines and intelligent robots taking over the jobs in the manufacturing and the services sectors. For Example: In china some customs officers are now robots, In japan robots as housemaid is emerging trend.
- Existential risks: Stephen Hawkins has once said "The development of full artificial intelligence could spell the end of the human race. Once humans develop artificial intelligence, it will take off on its own and redesign itself at an ever-increasing rate. Humans, who are limited by slow biological evolution, couldn't compete and would be superseded".
- AI technologies falling into terrorist hands may unleash modern terror network including machine and therefore vulnerability of humans may magnify.
- It may lead to moral degradation in society due to decreased human to human interactions.
- Machines in sensitive areas like medicine and defence will make humanity vulnerable.
- These technological changes be accompanied by equally profound economic, social and cultural changes.
- Potential job loss causes threat to human economic future.

#### Conclusion:

- Despite the fear of threats and challenges associated with AI, it is not the end of the road for humanity and we have a history of technological revolutions causing social and political changes in society. By using the AI in the right way it has potential to revolutionise the human lives. The human labour just has to be reskilled according to the new needs and there will be job transformation and not job loss in the future.

