

Indian Culture And Heritage**UNESCO Site Status****In News**

- The Geological Survey of India (GSI) has laid out a plan to commemorate heritage locations in Maharashtra and Karnataka as Global Geoparks. It is a tag similar to that of “World Heritage Site” wherein the geological features are highlighted on the global stage.
- One of the sites is an ancient circular lake created by a meteorite strike in **Maharashtra called the Lonar Lake or Lonar Crater**. It became a geo-heritage site in 1979, and is relatively young geologically, at just 50,000 years old.
- Its most remarkable feature is a near-perfect, circular ejecta blanket around it, which is nothing but the earth thrown up during collision. It is probably the only known meteorite crater in basaltic rock in India.
- The other one is **St. Mary’s Island off the coast of in the city of Udupi in Karnataka**. It is a hexagonal mosaic of basaltic rocks that was formed by sub-aerial sub-volcanic activity, at a time when Madagascar was attached to India. The rifting of Madagascar took place around 88 million years ago.
- The road to recognition, however, is long and arduous. An aspiring Global Geopark must have a few pre-requisites for it to be accepted as a world heritage site. The most important things needed to be considered for the tag are: *a dedicated website, corporate identity, a comprehensive management plan; and protection, finance and partnership plans.*

Global Geoparks

- A geopark is basically a unified area that initiates the protection and use of geological heritage in a sustainable way, promoting economic well-being of the people who live there, and also of course putting it on the global map thus initiating geo-tourism.
- Its **bottom-up approach** of combining **conservation with sustainable development** while involving local communities and is becoming increasingly popular.
- At present, there are **140 UNESCO Global Geoparks** in 38 countries.
- In order to ensure the quality of UNESCO Global Geoparks, they are subject to a **thorough revalidation every four years** to examine their functioning and quality.

Experiencing North East Festival**In News**

- The **Experiencing North East festival**, depicting the uniqueness of North Eastern culture, was recently held at India International Centre (IIC), New Delhi
- The festival was organized by **North Eastern Council (NEC)**, Ministry of Development of North Eastern Region (DoNER), in collaboration with **India International Centre**.
- The event which is a part of **‘Destination North East’ series** showcased the diverse culture, heritage and strengths of North East through its art and literature, films and rich musical talent.
- There were 5 workshops focusing on various themes like Adventure Tourism in NER, Science & Technology Interventions in North East Region (STINER), Act East & NER which provided opportunities for discussions and brainstorming sessions.

- Apart from this, the literary events called 'These hills we come from' and 'Voices from North East India', focussed on the linguistic and literary world of North East India through talks, readings, presentations, discussions and interactive sessions with authors from the North East.

Tagore Award for Cultural Harmony

In News

- The Tagore Award for Cultural Harmony for the years 2014, 2015, & 2016 was recently conferred on the doyen of Manipuri dance **Rajkumar Singhajit Singh; Chhayanaut** (a cultural organization of Bangladesh); and on one of India's greatest sculptors, **Ram Vanji Sutar**, respectively.
- The annual award was instituted by the government during the commemoration of **150th Birth Anniversary of Gurudev Rabindranath Tagore**.
- The **first Tagore Award was conferred on Pt. Ravi Shankar**, the Indian Sitar Maestro in 2012 and second was conferred on Shri Zubin Mehta in 2013.
- The award carries an amount of Rs. 1 crore, a citation in a scroll, a plaque as well as an exquisite traditional handicraft/ handloom item.
- The award is **open to all persons regardless of nationality, race, language, caste, creed or sex**.

Society

International Day of Girl Child

Syllabus: Role of Women And Women's Organization

In News

- The International Day of the Girl Child is celebrated annually on 11th October. The main aims of the day are to promote girl's empowerment and fulfilment of their human rights while also highlighting the challenges that girls face all over the world.
- Launched in 2012 by the **United Nations General Assembly**, it aims to focus on issues like education, equality, child marriage, access to services regarding puberty and sexual health, and addressing issues around gender-based violence.
- The theme for 2018 is **With Her: A Skilled Girl Force**
- The United Nation states that there are 1.1 billion girls today brimming with talent and creativity. However, violence, discrimination and the lack of equal opportunities serve to thwart the dreams and potential of many of them.
- Today's generation of girls are preparing to enter a world of work that is being transformed by innovation and automation. Educated and skilled workers are in great demand, but roughly a quarter of young people – most of them female – are currently neither employed or in education or training.
- Of the 1 billion young people – including 600 million adolescent girls – that will enter the workforce in the next decade, more than 90% of those living in developing countries will work in the informal sector, where low or no pay, abuse and exploitation are common.
- The theme will mark the beginning of a year-long effort to bring together partners and stakeholders to advocate for, and draw attention and investments to, the most pressing needs and opportunities for girls to **expand existing learning opportunities, attain skills for employability and prepare them for a successful transition into the world of work**.

Global Hunger Index

Syllabus: Poverty and Developmental Issues

In News

- The Global Hunger Index was recently released. It is a peer-reviewed publication released annually by **Welthungerhilfe and Concern Worldwide**.
- **Four main indicators** are used to calculate hunger levels in the report. The 2018 scores reflect data from 2013-2017.
- The first indicator is **undernourishment**, which is the share of the population which is undernourished and reflects insufficient caloric intake.
- The next three indicators use data for children under five: **child wasting** (low weight for height), reflecting acute under-nutrition; **child stunting** (low height for age), reflecting chronic under-nutrition; and **child mortality**.

India's Performance

- Overall, India has been ranked at **103 out of 119 countries** in the Index, with hunger levels in the country categorised as "**serious**". Its ranking has dropped three places from last year.
- India has **GHI of 31.1** making the country fall in the '**serious**' category. The best-performing countries have a GHI score as low as 5 (*Belarus, Bosnia and Herzegovina, Chile, Costa Rica, Croatia* etc).
- Out of the four parameters, three are dedicated to children below the age of five years. And in all this, India **performed poorly** with a GHI score of 30.5.
- India has shown improvement in three of the indicators over the comparable reference years. The percentage of undernourished people in the population has dropped from 18.2% in 2000 to 14.8% in 2018. The child mortality rate has halved from 9.2% to 4.3%, while child stunting has dropped from 54.2% to 38.4% over the same period.
- However, the prevalence of child wasting has actually worsened in comparison to previous reference years. It stood at 17.1% in 2000, and increased to 20% in 2005. In 2018, it stands at 21%. The only country with a higher prevalence of child wasting is the war-torn nation of South Sudan.
- Many **neighbouring countries** like China (25th), Sri Lanka (67th), Myanmar (68th), Nepal (72nd) and Bangladesh (86th) stood ahead of India.

Global Findings

- Despite improvement over the last two decades, globally the level of hunger still falls into the "serious" category. As per the Index, the level of hunger and undernutrition worldwide fell to 20.9, down from 29.2 in the year 2000.
- The Index projects that at the current rate of progress, 50 countries will fail to reach the low hunger category by 2030. This puts the UN's Sustainable Development Goal 2, which aims to end hunger by 2030, in jeopardy.
- **Highest rates of undernourishment:** Zimbabwe, Somalia, and CAR
- **Highest stunting rates:** Timor-Leste, Eritrea, and Burundi
- **Child Wasting** is most prevalent in **Djibouti** (16.7 %), **India** (21.0 %) and **South Sudan** (28.6 %).
- The **highest under-five mortality rates** are in Somalia (13.3 %), Chad (12.7 %), and CAR (12.4 %).

- Child wasting is high across South Asia, constituting a “**critical public health emergency**”. It is associated with a low maternal body mass index, suggesting the need for a focus on the nutritional status of the mother during pregnancy.
- In South Asia, maternal BMI and access to improved water and sanitation are more closely associated with rates of child wasting than household wealth, suggesting that a reduction in poverty alone may not be sufficient to correct the problem.
- Factors that could reduce child stunting in South Asia include increased consumption of non-staple foods, access to sanitation, women’s education, access to safe water, gender equality, and national food availability.

Why India’s Rank Is Low?

Despite steady economic growth and self-sufficiency in food grains production, high levels of poverty, the country is home to one-quarter of all undernourished people worldwide. The reasons are:

- **Poverty trap** – poverty ridden do not have enough money to buy or produce enough food. In turn, they tend to be weaker and get trapped into poverty hunger nexus.
- **Dietary ignorance** – Many people do not know about the nutritional component about their diets. They often do not complement their children’s diet with sufficient nutritional components. As a result we see the incidents of child stunting, child wasting etc.
- **Socio Cultural Factors** - Hunger in India also has **age, gender and caste** dimensions. Compared to men, women more often forgo meals to feed their children. This is evident from the World Bank’s report which says that 60% of those who are hungry are female. Caste and tribe are structural factors which predispose certain groups to long term poverty and deprivation which ultimately gets translated into hunger and malnutrition.
- **Politics of Distribution** - According to Amartya Sen, hunger usually arises from food distribution problems, or from governmental policies in the developing world, and not from the insufficiency of food production. This is true for India as well. Corruption, leakages, exclusion-inclusion error etc. makes the public distribution system inefficient in addressing the issue of hunger and malnutrition.
- **Food wastage** – Be it the cold storage of Food Corporation of India or the extravaganza shown in marriages and rituals, food/food grains wastages are the common thing in India. These wastages distort the food availability making difficult for poor and vulnerable to buy food from market.
- **Natural Disaster** – Erratic monsoon, incidence of draughts, unseasonal rainfall, cyclones etc. affects the food grain production and hence affects the food security in India.

Few Suggestions to Improve the Ranking

- Increased political commitment
- Convergence among various initiatives such as related to health, nutrition, agriculture, sanitation, labour etc.
- Improvement in food production and more focused approach towards food processing and food fortification
- Revamp public distribution system with focus on localized procurement, storage, and distribution
- Increased Public participation

World Habitat Day

Syllabus: Urbanization, Their Problems, and Their Remedies

In News

- In 1985, the United Nations designated the first Monday of October every year as World Habitat Day. The idea is to reflect on the state of our towns and cities and the basic right of all to adequate shelter. It is also intended to remind the world of its collective responsibility for the future of the human habitat.
- The focus of this year's World Habitat Day celebrations is taking action to address the municipal solid waste management challenge. This year's theme is **Municipal Solid Waste Management** with a slogan **Waste-wise cities**.
- Solid waste, particularly in urban areas, has the potential, if left unchecked, to pose serious health risks and violate a number of constitutionally enshrined human rights such as the right to clean water and to a clean environment which is harmful to one's well-being and health.
- It thus becomes paramount that waste collection processes are efficient and the disposal of waste is controlled and managed properly.
- On 1 October 2018, and in the period before and after this day, a concerted effort will be made to:
 - raise awareness that Municipal solid waste is a global challenge that all of us need to address
 - facilitate policy dialogue and form partnerships
 - promote innovative solutions to municipal solid waste management
 - mobilize resources to address the municipal solid waste challenges

Nobel Peace Prize

Syllabus: Social Empowerment

In News

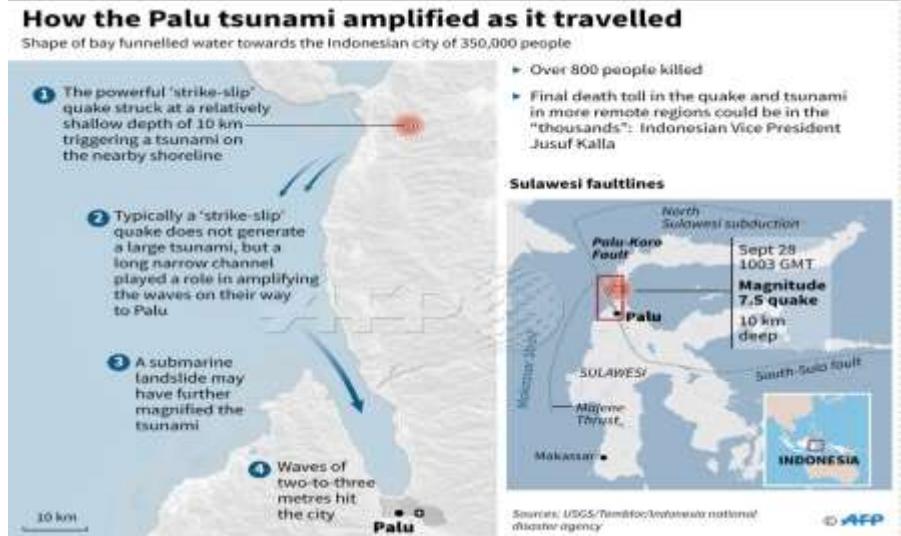
- The 2018 Nobel Peace Prize has been awarded to campaigners against rape in warfare - **Nadia Murad and Denis Mukwege**. The Committee commended them both for having put their personal security at risk by courageously combating war crimes and seeking justice for the victims.
- Ms Murad endured three months as a sex slave at the hands of IS militants. She was bought and sold several times and subjected to sexual and physical abuse during her captivity.
- After escaping, she became an **activist for the Yazidi people**, campaigning to help put an end to human trafficking and calling on the world to take a tougher line on rape as a weapon of war.
- She is the **first Iraqi to win the award** and was also named the UN's first goodwill ambassador for survivors of human trafficking.
- Mr. Mukwege has spent decades helping rape victims in the **Democratic Republic of Congo**.
- He and his colleagues are said to have treated about 30,000 rape victims, developing great expertise in the treatment of serious injuries sustained during sex assaults that were carried out as a weapon of war.
- He lives under the permanent protection of UN peacekeepers at his hospital and has also previously called for a tougher line on rape as a weapon of war.
- He has won a number of international prizes, including the 2008 UN Human Rights Prize, and was named African of the Year in 2009.

Science Of Indonesia's Surprise Tsunami

Syllabus: Important Geophysical phenomena such as earthquakes, Tsunami,

In News

- 7.5-magnitude earthquake shook the Indonesian island of Sulawesi.
- Scientists were surprised by the strength of the ensuing tsunami. And experts suggest that the area's unique geology could be to blame for the unexpected progression of the disaster.
- tsunamis typically are the result of the abrupt motion of large submarine earthquakes at tectonic plate boundaries.



- **And earthquakes are not uncommon in Indonesia; the island chain sits within what's known as the Ring of Fire, a curving horseshoe-shaped chain of tectonic plate boundaries that hugs the Pacific basin.** It is home to around 90 percent of the world's earthquakes.
- The **7.5-magnitude** earthquake appears to be the result of what's known as a strike-slip fault, which takes place as two blocks of crust grind against one another, largely in a horizontal direction.
- Tsunamis more commonly follow vertical movement in the crust, which disrupts the overlying water and can generate massive waves crashing onshore.

Indonesia's geology is highly complex. A spidery web of different types of faults cut through the region. It is also possible that the fault cut through a submarine slope, so the horizontal movement offset the underwater hillside, causing the destructive waves. The Palu bay is like a **bath tub. When you move one half of it, the horizontal displacement of the sea floor also pushed the water away and when it returned it came back as a tsunami wave.** New estimates suggest the land was displaced through Palu City and the bay area, supporting this interpretation.

Tsunami: Facts and Information

A tsunami is a series of ocean waves that sends surges of water, sometimes reaching heights of over 100 feet (30.5 meters), onto land. These walls of water can cause widespread destruction when they crash ashore.

What Causes A Tsunami?

- These awe-inspiring waves are typically caused by large, undersea earthquakes at tectonic plate boundaries. When the



ocean floor at a plate boundary rises or falls suddenly, it displaces the water above it and launches the rolling waves that will become a tsunami.

- Most tsunamis—about 80 percent—happen within the Pacific Ocean's "**Ring of Fire**," a geologically active area where tectonic shifts make volcanoes and earthquakes common
- Tsunamis may also be caused by **underwater landslides or volcanic eruptions**. They may even be launched, as they frequently were in Earth's ancient past, by the impact of a large meteorite plunging into an ocean.
- **Tsunamis** race across the sea at up to 500 miles (805 kilometers) an hour—about as fast as a jet airplane. At that pace, they can cross the entire expanse of the Pacific Ocean in less than a day. And their long wavelengths mean they lose very little energy along the way.
- In Deep Ocean, tsunami waves may appear only a foot or so high. But as they approach shoreline and enter shallower water they slow down and begin to grow in energy and height. The tops of the waves move faster than their bottoms do, which causes them to rise precipitously.

What Happens When It Hits Land?

- A tsunami's trough, the low point beneath the wave's crest, often reaches shore first. When it does, it produces a vacuum effect that sucks coastal water seaward and exposes harbor and sea floors.
- This retreating of sea water is an important warning sign of a tsunami, because the wave's crest and its enormous volume of water typically hit shore five minutes or so later. Recognizing this phenomenon can save lives.
- A tsunami is usually composed of a **series of waves, called a wave train**, so its destructive force may be compounded as successive waves reach shore. People experiencing a tsunami should remember that the danger may not have passed with the first wave and should await official word that it is safe to return to vulnerable locations.
- The best defense against any tsunami is early warning that allows people to seek higher ground.
- The **Pacific tsunami Warning System**, a coalition of 26 nations headquartered in Hawaii, maintains a web of seismic equipment and water level gauges to identify tsunamis at sea. Similar systems are proposed to protect coastal areas worldwide.

Constitution, Polity, And Governance**SC Decision On Reservation In Promotion**

Syllabus: Indian Constitution - Historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

In News

- In a historic decision (**Jarnail Singh v. Lachhmi Narain Gupta**), a five judge Constitution bench of the Supreme Court ruled that the reservation in promotion is legally and constitutionally correct but the creamy layer exclusion principle (till date that applied only to OBCs) can be extended to SCs and STs (in promotion) to deny reservation to the elite among the two underprivileged communities.
- In the **M Nagaraj case (2006)**, a five-judge Bench upheld the Constitutional validity of the 77th, 81st, 82nd and 85th Amendments that were brought to reverse the effect of the decision in the **Indra Sawhney case**. The court in Nagaraj case had ruled that if the state wishes to exercise their discretion and make provision for reservation in promotions for SCs/STs, the State has to collect quantifiable data showing backwardness of the class and inadequacy of representation of that class in public employment in addition to compliance of Article 335 (efficiency in administration).
- Thus, Nagaraj case held that before the SC and ST candidates can be promoted, the states had to prove by 'quantifiable data' that they were indeed 'backward'. But there was no definition of the expression 'backward' and there was also confusion that whether the term meant social backwardness, educational backwardness, economic backwardness or untouchability of which 'quantifiable data' was to be collected. As a result, all promotions made post-Nagaraj were struck down on the ground that there was no quantifiable data.

SC Decision

- **Extension of creamy layer to SC-STs in promotion:** The bench unanimously agreed to extend the creamy layer exclusion principle to SCs and STs in promotion. Thus, Court held that any executive or legislative action refusing to exclude the creamy layer from the benefits of reservation would be violative of Articles 14, Article 16(1) and also of Article 16(4).
- **Collecting quantifiable data:** The SC also gave relief to the Centre, States and SC & ST government employees in exempting states from collecting quantifiable data on backwardness to justify reservation in promotion for the two categories. The bench said their backwardness has been recognised as *inherent to them*. Earlier, the requirement to furnish quantifiable data, laid down in the M Nagaraj case to justify reservation in promotions for SC & ST employees has held up elevation of serving employees. Thus, in this aspect the court has overturned Nagaraj case. The Court also said that the M Nagaraj case misread the Indra Sawhney case (1992), which held that requirement of social, educational backwardness can't be applied to SCs/STs who are inevitably backward class of citizen.

While the court invalidated the requirement of collecting quantifiable data to show backwardness, the Bench said the state would still have to collect quantifiable data to establish inadequacy of representation before granting reservation in promotions. It also upheld the Nagaraj judgment's stipulation that the states must take into account the impact of such promotion on administrative efficiency. Thus, the bench partially upheld the Nagaraj ruling.

Challenges

- **Lack of sufficient eligible candidates:** The problem with introduction of creamy layer is that, currently there are no sufficient SC/ST candidates applying for various jobs. Consequently, if people

are eliminated on ground of creamy layer, there may not be enough candidates available for promotion.

- **Continued discrimination:** The economically better off SCs will continue to face discrimination in employment. With this decision, there will be less promotion and less people of reserved categories in higher ranks.
- **Affirmative action can't be based on economic criteria:** Nowhere in the world is affirmative action policy based on economic criteria. The anti-poverty policy is a different thing, for example, in case of foreign scholarships, income criteria is applied by the Ministry of Social Justice and Empowerment but the economic criteria cannot be used for denying reservation to them. Even in **Northern Ireland**, there is affirmative action for Catholics who are rich and educated.
- **Defeats purpose of reservation in promotion:** The application of creamy layer will defeat the very purpose of reservation in promotions.

(Also refer to 'Promotions in govt. offices should go on: Supreme Court' in June 2018 CA Magazine)

Entry Of Women In Sabarimala Temple

Syllabus: Indian Constitution - Historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

In News

Recently, the Supreme Court's constitutional bench (in **Indian Young Lawyers Association v. State of Kerala**) has struck down a rule that disallowed girls and women in the 10-50 age group from entering the Sabarimala temple in Kerala on ground that temple rule violated their right to equality and right to worship.

SC Decision

- **Majority opinion:** The majority opinion held that the prohibition reduced the freedom of religion to a dead letter and the ban was a smear on the individual dignity of women.
- **Violative of various rights:** It held that the exclusionary practice violates the right of women to visit and enter a temple to freely practice Hindu religion besides violating their right to worship.
- **Application of Article 17:** Such exclusionary custom was termed as a form of untouchability, which cannot be allowed under the Constitution. As Article 17 certainly applies to untouchability practices in relation to lower castes, but it will also apply to the systemic humiliation, exclusion and subjugation faced by women.
- **Not a separate religious denomination:** It said Ayyappa devotees do not constitute a separate religious denomination within the meaning of Article 26 of the Constitution.

All eyes on SC

The chronology of the long-standing petition in the Supreme Court against the restriction on women aged between 10 and 50 from entering the Sabarimala temple in Kerala:



1991: In *S. Mahendran versus the Secretary, Travancore* case, the Kerala High Court upheld the State's ban on menstruating women from entering the temple. The HC order went unchallenged for 15 years

sanctum and touched the idol of the deity in Sabarimala. Her claims led to a furor, leading to a case against the actor

2006: Kannada actor Jayamala claimed she had entered the sanctum

2006: A PIL against the Kerala HC order was filed by the India Young Lawyers Association, contending that the ban violated constitutional rights of women

2008: On March 7, a Bench of Justices S.B.Sinha and V.S. Sirpurkar referred the case to a three-judge Bench. The case lay in cold storage for 8 years

2016: On April 13, a Bench of Justices Dipak Misra, V. Gopala Gowda and Kurian Joseph heard a batch of petitions

2016: On April 25, senior advocate K.K. Venugopal, representing the Devaswom, said, "There is a reasonable classification by which certain class of women are excluded." The SC enquired if the defence was implying that menstruation was associated with purity of women

2018: SC Allows Entry of Women into the Sabari Mala temple in Kerala

- **Not an essential religious practice:** SC also held that practice of excluding women from the temple at Sabarimala is not an essential religious practice. Further said that the court must decline to grant constitutional legitimacy to practices which derogate from the dignity of women and to their entitlement to an equal citizenship.
- **Patriarchy not allowed:** To exclude women from worship by allowing the right to worship to men is to place women in a position of subordination. The Constitution should not become an instrument for the perpetuation of patriarchy.

Please refer July 2018 CA Magazine for detailed debate on Sabarimala Temple Entry.

US 25th Amendment

Syllabus: Comparison of the Indian constitutional scheme with that of other countries

In News

Recently, the issue of removal of President Donald Trump has come up over the alleged sexual misconduct allegations.

Background

- **Article II (Section 1, Clause 6)** of the US Constitution deals with removal of the President from Office and mentions his disability or inability to discharge the Powers and Duties of the said Office, but does not explain- What is the extent of the term 'disability' and who is to be the judge of it?
- The procedure to remove a President under **Amendment XXV** is more difficult than impeachment under **Article II, Section 4**, wherein impeachment can happen by a *simple House majority* and the President can be removed by a *two-thirds vote* in the Senate.



Amendment XXV Has Four Sections

- **First Section:** The first section says in case of the removal of the President or of his death or resignation, the Vice President shall become President.
- **Second Section:** The second says that whenever there is a vacancy in the office of the Vice President, the President shall nominate a Vice President who shall take office upon confirmation by a majority vote of both Houses of Congress.
- **Third Section:** The President can after informing the President pro tempore of the Senate and Speaker of the House of Representatives, temporarily hand over his responsibilities to the Vice President.
- **Fourth section:** It allows the Vice President and a majority of either the principal officers of the executive departments (the Cabinet) to declare to the President pro tempore and Speaker that the President is unable to discharge the powers and duties of his office. In such a case, the Vice President shall immediately assume the powers and duties of the office as Acting President. If the President submits that no inability exists, Congress shall decide the issue by *two-thirds* vote of both Houses.
- **Procedure:** Congress would have to assemble within 48 hours and vote on the issue within 21 days. If two-thirds of both Houses agree that President (Trump) can't remain President he would

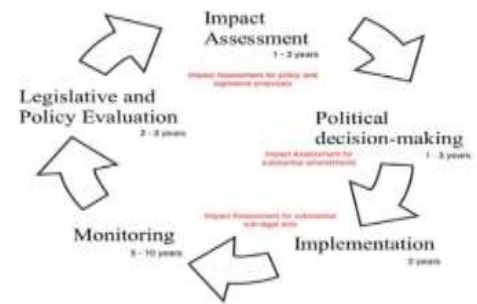
have to go and Pence (Vice President) would become President. Otherwise, Trump would be back as President.

Legislative Impact Assessment

Syllabus: Parliament and State Legislatures- structure, functioning, conduct of business, powers & privileges and issues arising out of these.

In News

- Legislation and policies in the country are often passed with inadequate scrutiny and assessment. Increasingly, the '**rush towards law**' results in policies and legal frameworks that are mostly reactive and seek to offer quick fix solutions to complex problems.
- As a result, both lawmakers and citizens are frequently blindsided by the unanticipated impact of these moves and the laws often run aground on issues of implementation.
- The idea of **legislative impact assessments** is slowly getting traction around the world, since there is widespread acceptance of the idea that laws and rules need to be comprehensively analyzed prior to their enactment so as to minimise such negative externalities or at the very least, to identify them.



Challenges

- **No legislative impact assessment:** The law making in India is still largely conducted in silos, which ensures that there is little consciousness of how these might potentially impact, either directly or indirectly, aspects of the economy, ecology, development and society in ways that might be wholly unintended by their framers.
- **Further compound existing problem:** Ultimately, the time and effort it takes to undo and resolve the issues caused by such hasty law making can compound these problem that the law was intended to resolve, making the entire exercise of fixing the issue futile. The current *issue of Aadhaar* is one such example.
- **Multiple causes:** The problem further stems from multiple causes, including the nature of political economy in India, the lack of a formal assessment structure for these laws and rules and the increasing complexity of law making in today's diverse and interconnected societies.

Way forward

- The need of the hour is an impact assessment that focuses on policy and legal frameworks before they are passed. Countries like **Kenya and Finland** have mechanisms in place for the assessment of regulatory and legislative proposals as an essential part of their legislative process.
- A **Policy And Legislative Impact Assessment (PLIA) Framework** be submitted and released to the public along with every proposed Bill. At a minimum, a framework would (a) identify the policy problem, its root cause and the need for action; (b) benchmark it against available alternatives; (c) conduct stakeholder meetings and identify potential impact; and d) pre-empt possible conflicts by identifying and planning for the mitigation of any and all negative effects of taking such an action.
- Thus, establishing and following a PLIA framework in both letter and spirit would allow us to identify optimal law and policy changes and ensure that preferred options are those that are economically feasible, operationally viable and socially acceptable, among several other considerations.

- Above all, such a framework would promote transparent and democratic law making in the country and allow citizens to understand and debate trade offs created by such laws even before they are formalized.

Issue Of Clemency To Rajiv Gandhi Killers

Syllabus: Structure, organization, and functioning of Executive and Ministries/Departments

In News

- After failing to get the seven convicts in the Rajiv Gandhi assassination case released by exercising its statutory power to remit life sentences, the AIADMK government has decided to invoke the Governor’s clemency power under **Article 161** of the Constitution.
- The earlier attempt in 2014 to remit the sentences (after 14 years of imprisonment) under the provisions of the Code of Criminal Procedure (Section 435) was stayed by the Supreme Court, which ultimately held that the Centre had primacy in according remission to life convicts in a case that involves consultation between the Centre and the State.
- Tamil Nadu Governor will now have to take a call on the advice of the State’s Council of Ministers and decide whether he is bound by it. The moot question is whether he will pause to consider the Centre’s opinion against releasing these convicts and either reject the proposal or seek its reconsideration. In either case, he will also be mindful of the fact that his decision will be subject to judicial review.

Raj Bhavan to take call

T.N. govt. has invoked Article 161, which grants clemency power to the Governor, to recommend the release of seven convicts in the Rajiv Gandhi assassination case. What are the options before Banwarilal Purohit?

1 Advice of Council of Ministers is binding on the Governor; so he may accept it immediately

2 No time limit is prescribed in the Constitution, and the Governor can take his time

3 The Governor can seek Centre's opinion in the matter

4 The Governor can seek reconsideration of the decision

POSSIBLE GROUNDS FOR REMISSION

- Change in circumstances, as the convicts have completed 27 years in prison
- Earlier rejection of mercy petitions by Governor/President was made while some of them were death row convicts; as they are all life convicts now, there is no bar on granting remission
- Sovereign power has not been exercised so far in respect of three convicts originally sentenced to life

Ray of hopes: Perarivalan's mother Arputhammal thanking CM Edappadi K. Palaniswami on Sunday.

• SPECIAL ARRANGEMENT

• Supreme Court: judgments have ruled that rejection of clemency once does not exhaust the power, and it can be invoked again

Arguments In Favour

- **Provisions of Article 14:** The hundreds of prisoners who have been convicted of similar crimes have had their sentences pardoned under *Article 161*. Thus, by not exercising clemency in present case government runs the risk of violating Article 14.
- **Effect of Long Incarceration:** In principle the idea, that convicts who have suffered prolonged incarceration require compassion, cannot be faulted. The idea of locking away a person for life, without so much as a sliver of hope of freedom is not in keeping with the ideals of a truly modern society.
- **Humane Consideration:** A case may be made to say that the perpetrator and the principal conspirator are dead and that those who were imprisoned were mere pawns some of whom may not have known the entirety of the enterprise. In these circumstances, to routinely deny the benefit of remission may not always be appropriate.
- **Reforming prisoners:** The focus of our prison system should be in bringing about reform in the moral character of each prisoner and enabling him to restart his life outside the jail complex after serving his sentence.

Arguments Against

- **Limited discretionary power:** The SC decision in *Nabam Rebia v. Deputy Speaker (2016)* held that the discretionary power of the Governor is extremely limited and entirely amenable to judicial review.
- **Centre's primacy:** Since in the present case the CBI is the prosecuting agency and not the State. Therefore, the State has no say and even after the State government recommends and the Governor takes a decision to release the convicts, there still needs to be reaffirmation by the Centre.
- **International ramification:** There is no legal bar on the convicts getting the benefit of Article 161, even though the mercy petitions of some of them have been rejected by both the Governor and the President. But the issue has thrown up a number of questions. For instance, what happens to the four Sri Lankan nationals among the convicts? Will they remain in India or be repatriated?
- **Case by case analysis:** Also, shouldn't there be a case-by-case evaluation for releasing those sentenced for life? An omnibus order of release clearly will not address the particularities in each case or evaluate the gravity of their role in the crime and the effect on society of releasing them.
- **India will be perceived soft on terror:** Another factor that may need to be taken into account is the social impact of a remission order, in the event that it is passed in this case. If people can be freed even after being convicted for the murder of a former Prime Minister in a terror incident, questions could be asked whether India is a soft state on matters of terrorism?
- **Set precedent:** A release order in this case may be cited as a precedent in other cases where terrorists and their co-conspirators are serving sentences of imprisonment for life.
- **Clemency already exercised:** In the present case, earlier the sentence was commuted from death to life imprisonment. So, the power has already been exercised. Thus, keeping the issue open would not be fair.
- **Life imprisonment vis-à-vis capital punishment:** When lifelong imprisonment is regarded as a humane alternative to capital punishment, releasing life convicts may only strengthen the demand for the imposition of the death penalty, which would be retrograde.

Way forward

Although there are many political considerations behind the move to release the convicts, this case must be decided on the basis of legal principles alone.

Live Streaming Of Court Proceedings

Syllabus: Structure, organization, and functioning of Judiciary and Related Issues

In News

The Supreme Court took a major leap in imparting transparency in the functioning of the judiciary by allowing live streaming of court proceedings of cases of constitutional and national importance, saying this openness was like sunlight, which is the best disinfectant.

Other Points Of The Decision

- **Pilot project:** The live streaming will start as a pilot project in the Supreme Court for cases of national importance.
- **Exclusion from live streaming:** The top court said that sensitive cases such as those dealing with matrimonial disputes or sexual assault should not be live streamed. It also pointed out that in some cases the parties may have genuine reservations and may claim right of privacy and dignity. Such a

claim will have to be examined by the court and for which a just regulatory framework must be provided for, including obtaining prior consent of the parties to the proceedings to be live streamed.

- **No appeal:** The final decision whether to live stream a case or not, lies with the court, especially in sensitive ones and such decision cannot be appealed.
- **Time gap:** There must be a reasonable time delay (say 10 minutes) between the live court proceedings and the broadcast, in order to ensure that any information that ought not to be shown, as directed by the court, can be edited from being broadcast.
- **Gist of the judgement:** The live streaming will be subject to two broad conditions: *one* that the court permission can be revoked any time; *two* the consent of all parties to be taken. Where there are many petitioners in a constitutional case, all have a no-consent veto that can be examined by the court for reasons. This will create a case within a case before any broadcasting.

For detailed analysis (Benefits and Challenges) on this topic, please refer July 2018 CA Magazine

Government Weighing Law Panel's Report on Unfair Prosecution

Syllabus: Structure, organization, and functioning of Judiciary and Related Issues

In News

- The recent Supreme Court judgement on acquitted *ISRO scientist Nambi Narayanan*, being awarded a compensation of Rs. 50 lakh for implication in a fabricated case, has put the spotlight on the Law Commission report on wrongful prosecution.
- Submitting the report, the Law Commission expressed deep concern over the absence of any effective response from the state to victims of wrongful prosecution. For, there is no statutory or legal scheme to this effect.

Law Commission Recommendations

- **Legislative framework:** The Law Commission suggested that the need for a legislative framework for redressal of harms inflicted by wrongful prosecution. It has recommended enactment of a specific legal provision for effective redressal of such cases.
- **Compensation:** The panel has also suggested a statutory obligation on the state to compensate victims of wrongful prosecution and a corresponding statutory right of compensation for such victims.
- **Components of compensation:** On compensation the panel has suggested that since it will not be feasible to lay down a fixed compensation, the law should include certain guiding factors for the special court to consider while determining it. The compensation should include both pecuniary and non-pecuniary assistance.
- **Indemnification:** In such cases, where the state pays compensation for the errant acts of its officials, it can seek indemnification from the concerned officials. It also adds that the state can initiate appropriate proceedings against them in accordance with the law.
- **Speedy adjudication:** For speedy adjudication of such cases, the panel has opined that special courts be set up for this purpose and summary proceedings be conducted.
- **Other features of framework:** Law Commission adds that the framework will also include prescribed timelines for the disposal of the application, payment of compensation; period of limitation for filing the claim for compensation and for filing an appeal against the order of the special court.

Prison Reforms

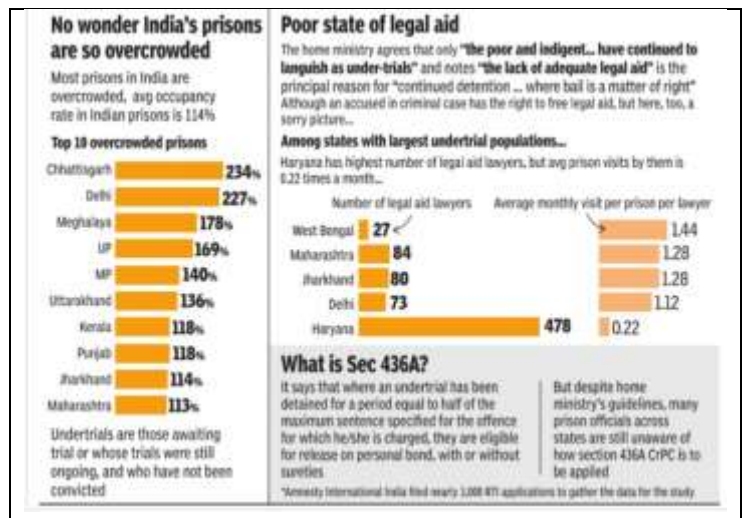
Syllabus: Structure, organization, and functioning of Judiciary and Related Issues

In News

- In an acknowledgment that the more than a century-old system of prisons in India needs repair, the Supreme Court (SC) has formed a committee on prison reforms. Former SC judge, **Justice Amitava Roy**, will head the committee and it is to look into the entire gamut of reforms to the prison system.
- But this is not the first time that such a body is being set up, examples being the **Justice A.N. Mulla committee** and the **Justice Krishna Iyer committee** on women prisoners (both in the 1980s).
- While marginal reforms have taken place, these have not been enough to ensure that prison conditions are in tune with human rights norms.

Challenges

- **Overcrowding:** There is a concern about growing numbers of prisoners and the woeful incapacity of governments to build more and larger prisons. In India, the *publication (Prison Statistics India)*, brought out by the National Crime Records Bureau (NCRB) provides that there has been an average occupancy rate of 114% in most of the prisons.
- **Shortage of staff:** The ratio between the prison staff and the prison population is approximately 1:7. In the absence of adequate prison staff, overcrowding of prisons leads to rampant violence and other criminal activities inside the jails.
- **Large number of undertrials:** About 67% of total inmates were undertrials, which has further complicated the problem.
- **Long incarceration:** The incarceration in any form is uncivilized, especially when it is so long drawn out and when the objective of criminal punishment should be one of reform rather than wreaking vengeance on a perpetrator of crime.
- **Problems in acquiring bail:** For poor and marginalized, it is also difficult to get bail, which leaves them no option but to stay in jails and wait for courts final order.
- **Unnecessary arrests:** Over 60 per cent of arrests were unnecessary, and such arrests accounted for 3 % of jail expenditure.
- **Lack of legal aid:** Legal aid lawyers are poorly paid and often over-burdened with cases. Further, there is no monitoring mechanism to evaluate the quality of legal aid representation in most states.
- **Unsatisfactory living conditions:** Prison structures in India are in dilapidated condition. Further, lack of space, poor ventilation, poor sanitation and hygiene make living conditions deplorable in Indian prisons.
- **Loss of human rights:** Another complaint against prisons is the brutality and venality of prison officials, again common across the world.



- **Custodial deaths:** In 2015, a total of 1,584 prisoners died in jails. A large proportion of the deaths in custody were from natural and easily curable causes aggravated by poor prison conditions. Further, there have been allegations of custodial deaths due to torture.

Suggestion by Mulla Committee (1983)

- **Formation of NPC:** The setting up of a *National Prison Commission* to oversee the modernization of the prisons in India.
- **Segregation:** Putting a ban on clubbing together juvenile offenders with the hardened criminals in prison and enacting a comprehensive and protective legislation for the security and protective care of delinquent juveniles. Segregation of mentally ill prisoners to a mental asylum.
- **Conditions in prisons:** The conditions of prison should be improved by making adequate arrangements for food, clothing, sanitation and ventilation *etc.*
- **Under trials:** Lodging of under trial in jails should be reduced to bare minimum and they should be kept separate from the convicted prisoners

Best Practices

- Norway's incarceration rate is only 75 per 100,000 people.
- The criminal justice system in Norway focuses on the principle of restorative justice and rehabilitating prisoners.
- 30% of prisons in Norway are open and all prisons ensure healthy living conditions, vocational training and recreational facilities.

Way forward

- There is a belief that improving prison conditions, there is likely to be an attendant impact on the incidence of crime. This accounts for the reluctance of many criminal justice administrators to employ or enlarge non-prison alternatives such as community service.
- Moreover, there is a popular view that in order to reduce prison populations, proven non-violent offenders could be dealt differently and white-collar crime are one of such kind of offences. Devising swift processes of attachment of properties and freezing of bank accounts are alternatives to a jail term.

Relevance of NITI Aayog

Syllabus: Constitutional/Statutory/Regulatory/Quasi-Judicial Bodies

In News

The NITI Aayog was formed to replace Planning Commission and bring fresh ideas to the government. Its first mandate is to act as a think tank.

Significance of NITI Aayog

- **Congregation of Ideas:** NITI Aayog act as a funnel through which new and innovative ideas come from all possible sources *i.e.* industry, academia, civil society or foreign specialists and flow into the government system for implementation.
- **Drafting of Policies And Laws:** Initiatives like *Ayushman Bharat*, policy on *Artificial Intelligence* and water conservation measures and the Draft Bill to establish the National Medical Commission to replace the Medical Council of India have all been conceptualized in NITI Aayog and are being taken forward by the respective Ministries.
- **An Action Think Tank:** NITI Aayog has acted as an action tank rather than just a think tank by collecting fresh ideas and sharing them with the Central and State governments, it pushes frontiers and ensures that there is no inertia. If it succeeds, NITI Aayog can emerge as an agent of change

over time and contribute to the agenda of improving governance and implementing innovative measures for better delivery of public services.

- **Ensure Convergence:** NITI Aayog works to cut across the silos within the government. It is best placed to achieve this convergence and push the agenda forward.
- **Bring In Accountability:** NITI Aayog is also bringing in greater level of accountability in the system. Earlier, there were Five-Year Plans, but they were mostly evaluated long after the plan period had ended. Hence, there was no real accountability. But NITI Aayog has established a *Development Monitoring and Evaluation Office*, which collects data on the performance of various Ministries on a real-time basis. The data are then used at the highest policymaking levels to establish accountability and improve performance. This performance and outcome based real time monitoring and evaluation of government work can have a significant impact on improving the efficiency of governance.
- **Promote Cooperative as well as Competitive Federalism:** NITI Aayog identifies the best practices in different States in various sectors and then try to replicate them in other States. NITI Aayog also come up with performance-based rankings of States across various verticals to foster a spirit of competitive federalism. It also plays an important role of being the State's representative in Delhi and facilitate direct interactions with the line Ministries, which can address issues in a relatively shorter time.
- **Improving Innovation:** The *Atal Innovation Mission*, which is also established under NITI Aayog, has already done commendable work in improving the innovation ecosystem in India. It has established more than 1,500 *Atal Tinkering Labs* in schools across the country and this number is expected to go up to 5,000 by March 2019. It has also set up 20 *Atal Incubation Centres* for encouraging young innovators and start-ups.

Criticism Of NITI Aayog

- **Uncritical praise:** NITI Aayog is supposed to be a think tank. This implies that while generating new ideas, it maintains a respectable intellectual distance from the government of the day. Instead, it is seen that Aayog has been putting uncritical praise of government-sponsored schemes.
- **Planning is essential:** The country like India can't transform itself with new ideas and strategies if it doesn't have a paradigm of planning for development. India requires planning that addresses social justice, reduces regional and gender inequalities and ensures environmental sustainability.

Conclusion

With its current mandate that is spread across a range of sectors and activities and with its unique and vibrant work culture, NITI Aayog remains an integral and relevant component of the government's plans to put in place an efficient, transparent, innovative and accountable governance system in the country.

Rift In CBI

Syllabus: Constitutional/Statutory/Regulatory/Quasi-Judicial Bodies

In News

- The Central Bureau of Investigation (CBI) Joint Director Nageshwar Rao has been appointed as interim director with immediate effect. While the CBI Director Alok Verma, along with Special Director Rakesh Asthana have been sent on leave, who accused each other of corruption.
- The crisis within the CBI started building up in October 2017 when the director, Alok Verma opposed the appointment of Rakesh Asthana as special director in the CBI on the ground that he did not have a clean image.

- The Supreme Court also stepped into the present institutional, when Alok Verma challenged his forcible leave on ground that **Section 4B of the Delhi Special Police Establishment Act** doesn't allow the government to transfer the CBI Director during the *two-year fixed* tenure without the previous consent of the high-powered committee consisting of the Chief Justice of India, the Prime Minister and the Leader of the Opposition. The same was also introduced in *Lokpal Act, 2013*.
- The SC in its interim order has clipped the wings of the interim Director, restraining him from making any policy or major decisions, except those that are routine and essential for the CBI to function.
- Further, a *retired SC judge Justice A.K. Patnaik* has been appointed to supervise the investigation into the complaints against Alok Verma and submit report within 2 weeks.

Challenges Faced By CBI

- **Overall Issues:** The CBI has been facing charges on various counts such as its alleged politicization, serious charges against its various chiefs, its very poor conviction rate, its delays in carrying out timely investigation, not to mention its lack of core competence and domain knowledge are indicative of a much more serious malaise.
- **Lack of legal backing:** The real problem for the CBI lies in its charter of duties. These are not protected by legislation. Instead, its functions are based merely on a government resolution that draws its powers from the *Delhi Special Police Establishment Act 1946*.
- **Caged parrot:** Excoriating the agency's investigation of the coal scam, the SC had in 2013, described it as a caged parrot who works according to the wishes of the government in power.
- **Professional impropriety:** The Verma-Asthana face-off is not the first time that the CBI's top brass has come under the scanner for professional impropriety. Former director, Ranjit Sinha, for instance, came under cloud in both the 2G and coal scams.
- **Manpower shortage:** CBI is facing the staff shortage, which is required to deal with the daily dealings of the CBI office. Further, Supreme Court and High Courts are handing over a large number of sensitive cases to the CBI for investigation without additional manpower.
- **Issue about CVC:** In the present case, many experts have pointed out that the CVC has acted in partisan manner. Moreover, it has also been claimed that the CVC usually acts as a postbox for forwarding complaints to the requisite government departments, without even bothering to ask for a reply from the department concerned. Moreover, the questions such as whether the CVC's power of superintendence extends to recommending stripping a Director of his powers and functions have also arisen.

Way forward

- **Formation of SIT:** Officers of proven integrity can still be found and they should be gathered in a Special Investigation Team charged with getting to the bottom of the police wars.
- **Legal backing:** The structural deficiency need to be removed such as CBI continued to work under Delhi Special Police Establishment Act of 1946. As far back as 1978, the *L P Singh committee and Second Administrative Reforms Commission (2007)* had recommended enactment of a comprehensive Central legislation to remove the deficiency of not having a central investigative agency with a self-sufficient statutory charter of duties and functions. Thus, it is high time the CBI is vested with the required legal mandate and is given pan-India jurisdiction.
- **Specialized cadre:** This should also serve as the occasion to think of institutional reform. Perhaps it is time to act on the proposal to create a specialized cadre for the CBI. The CBI, just like its counterpart in the US, the FBI should now convert itself into a multidisciplinary corruption-fighting

force with experts from diverse fields such as finance, banking, purchase, procurement, insurance and engineering.

- **Improving functioning:** There's a dire need to improve the capability of the intelligence-collection machinery and upgrade its resources, the intelligence-sharing mechanism.
- **Accountability:** Moreover, the police should ideally have multiple lines of accountability, to the executive, the legislature *via* a committee and to the Human Rights Commission. These multiple lines of accountability would, instead of making them dysfunctional, give them functional autonomy in their professional conduct, shielding them from undue influence.

Issue of Payment Regulatory Board

Syllabus: Constitutional/Statutory/Regulatory/Quasi-Judicial Bodies

In News

- The Reserve Bank of India (RBI) released its dissent note on the report of an Inter-Ministerial Committee, which has recommended that the proposed **Payments Regulatory Board (PRB)** should be an independent regulator (moreover, Committee recommended that the Chairman of this body should be appointed by the government). While, the RBI wants the body to be under its purview as had been stated in the **Finance Bill of 2017**.
- Before report of Inter-Ministerial Committee report in August 2018, the panel formed by the government for finalization of amendments to the **Payment & Settlement Systems Act, 2007** under Economic Affairs Secretary **Subhash Chandra Garg's** chairmanship had recommended that the PRB should be an independent regulator outside RBI's purview.
- RBI says that the composition of the PRB is also not in conformity with the announcements made in the Finance Bill, 2017 that suggested that the RBI governor would be in charge of the board. The RBI also says that the PRB must remain with the RBI and headed by the governor, RBI.

RBI Contentions

- **Subset of currency:** Payment systems are actually technology-based substitutes for currency. The RBI does the distribution of currency, therefore payment system also need to be regulated by the RBI.
- **Digital payments settles at banks:** The RBI says that the digital payments get eventually settled between bank accounts that is why the RBI wants to be in charge of the board.
- **Dual regulation not warranted:** The RBI has also pointed out that Banks issue credit and debit cards globally and dual regulation over such instruments will not be desirable. Moreover, as India's payment system is bank-dominated, oversight by the same regulator inspires public confidence.
- **Reduction of compliance cost:** RBI also contends that since the RBI regulates the banks, a holistic regulation by the RBI would be more effective and will not result in increased compliance costs unless multiple regulators exist for related systems.
- **Impacts monetary policy:** The overarching impact of monetary policy on Payment and Settlement systems and *vice versa* provides support for regulation of payment systems to be with monetary authority.
- **Global practices:** Central banks are in charge of payment systems globally and moreover there has been no evidence of any inefficiency in existing payment systems of India. Thus, given this, there need not be any change in a well functioning system.

Recommendations of the Inter-ministerial Committee		Dissent by RBI	
1. Keep Payments Regulatory Board outside control of RBI.	3. Deputy chairman nominated by RBI not below the rank of ED	1. Keep payments regulation within Reserve Bank	3. Have a seven-member committee: 3 members nominated by the govt and 3 from RBI, plus RBI GAN as chairman with a casting vote.
2. Appoint a chairman as per govt recommendations	4. Make non-banks a bigger stakeholder in the process	2. Keep RBI gov as chairman of PRB	

Way Forward

- The RBI's case makes good sense when seen from the perspective of the cost of regulatory compliance. As stated above, there is definite overlapping between the current regulatory powers of the RBI and the proposed regulations for the payments industry. A unified regulator can thus help in lowering the compliance costs and enabling the seamless implementation of rules.
- Further, there is the real risk that a brand new regulator may be unable to match the expertise of the RBI in carrying out necessary regulatory duties. So it makes better sense to have the RBI take charge of the rapidly growing payments industry, which can ill afford regulatory errors at this point.
- However, the RBI's demand for the centralization of regulatory powers also brings with it the need for exercising a greater degree of responsibility. At a time when there are increasing risks to the stability of the domestic financial system, both the government and the RBI must look to work together to tackle these risks instead of battling over regulatory powers.

Code of Conduct For MPs and MLAs

Syllabus: Important aspects of governance, transparency and accountability

In News

- Recently, Vice President has called on political parties to evolve a consensus on a code of conduct for their members, both inside the legislature and out of it, so that people do not lose faith in political processes and institutions. A Code of Conduct for members of Rajya Sabha has been in force since 2005; there is no such code for Lok Sabha.
- Similarly, a conference of Chief Justices in 1999 resolved to adopt a Code of conduct for judges of the SC and High Courts, this 15-point '**Reinstatement of Values in Judicial Life**' recommended that serving judges should maintain an air of aloofness in their official and personal lives.
- In **UK**, a code of conduct for MPs was prepared pursuant to Resolution of House of 19 July 1995.
- The Canadian House of Commons has a **Conflict of Interest and Ethics Commissioner** with powers to examine violations of the Conflict of Interest Code at the request of another Member or by Resolution of the House or on his own initiative.
- **Germany** has had a Code of Conduct for members of the Bundestag since 1972; the US has had a Code since 1968. Pakistan has a Code of Conduct for members of the Senate.

Background

- Codes of conduct for high constitutional functionaries and representatives of the people have been discussed for long. A Code for Union Ministers was adopted in 1964 and state governments were advised to adopt it as well.
- In the case of MPs, the first step was the constitution of Parliamentary Standing Committees on Ethics in both Houses. *Chairman K R Narayanan* inaugurated the Committee in Rajya Sabha on May 30, 1997 to oversee the moral and ethical conduct of the Members and to examine the cases referred to it with reference to ethical and other misconduct of Members.

Provisions of Rajya Sabha 14 point Code of Conduct

- **Public interest primary:** If Members find that there is a conflict between their personal interests and the public trust which they hold, they should resolve such a conflict in a manner that their private interests are subordinated to the duty of their public office.

- **Guarding against conflict of interest:** Members should always see that their private financial interests and those of the members of their immediate family do not come in conflict with the public interest and if any such conflict ever arises, they should try to resolve such a conflict in a manner that the public interest is not jeopardized.
- **Non-participation:** According to the rule, a member should not participate in any debate if there is direct conflict of interest, without first declaring it and that in case of a vote on any issue in the House, the vote of such a member could be challenged.
- **Expectation from members:** Members should never expect or accept any fee, remuneration or benefit for a vote given or not given by them on the floor of the House, for introducing a Bill, for moving a resolution or desisting from moving a resolution, putting a question or abstaining from asking a question or participating in the deliberations of the House or a Parliamentary Committee.
- **Rule 293 of Rajya Sabha:** Rule 293 of the Rules of Procedure and Conduct of Business in the Council of States states that there shall be maintained a **Register of Member's Interests** in such form as may be determined by the Ethics Committee which shall be available to members for inspection on request. This is accessible to ordinary citizens under the RTI Act.

Right to Privacy vis-à-vis Right to Information Act

Syllabus: Important aspects of governance, transparency and accountability

In News

- The Central Information Commission (CIC) plans to make clear its objections against recommendations made by the **BN Srikrishna Committee** on data protection on the grounds that they infringe upon the freedom of speech, undermine the Right to Information (RTI) Act and could prevent the exposure of corruption.
- The Srikrishna Committee suggested amending RTI Act to authorize public information officers (PIOs) to deny information containing personal data, if they feel that such disclosure is likely to cause harm to the '**data principal**' and if such harm outweighs public interest. (The current laws says that the information can be given access even if it violates privacy, where the public interest demand so) The Bill defines 'data principal' as whomsoever the data relates to.

Objection by CIC

- **Put curb on RTI:** The Draft Privacy bill undermines the RTI Act and proposes curbs on information, which should ideally be in public domain.
- **Chances of misuse:** The Privacy tool can easily be misused and put curbs as serious as those implemented during the Emergency.
- **Shield from public scrutiny:** The Right to privacy, which is meant to protect citizens from arbitrary state and corporate surveillance might be deployed first and foremost to shield authorities from scrutiny by citizens.
- **Privacy exemption already under the Act:** The RTI Act has various provisions (including *Section 8(1)(j)*), which carve out privacy exemption, thus there is no need for further widening the privacy exemption.
- **PIO will play safe:** The amended clause will chill the RTI Act, as PIOs will now have a strong legal ground to play safe and deny RTI requests.
- **Confusion:** A citizen seeking access to alleged private information will be confused whether to approach the CIC or Data Protection Authority (DPA).

- **Question about Right to Forgotten:** Reservations were also expressed about the so-called Right to be forgotten, which gives an individual the power to restrict or prevent the disclosure of personal information by a data fiduciary.

Please refer August 2018 CA Magazine for Srikrishna Panel's Data Protection Report.

Social Justice

POCSO Act

Syllabus: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes

In News

- In a significant development amid multiple cases of alleged sexual abuse and a raging debate on the issue of dignity of women, the central government has said that a victim of sexual abuse faced as a child can register a complaint at any age.
- The Law Ministry concurred with the opinion of the Ministry of Women and Child Development, after examining the overriding provisions of POCSO Act vis-à-vis provisions of CrPC.
- **Section 19 of the POCSO Act**, which deals with sexual crimes against children, lays down the procedure for reporting a crime but **doesn't specify a time limit or statute of limitation for reporting it.**
- Whereas the **CrPC lays down different time limits for crimes which carry a punishment of up to three years.** However, there is no time bar for crimes that would attract a jail term of more than three years.
- Reacting to the development, the Women and Child Development Minister said that now any victim, at any age can complain the sexual abuse faced by them as a child and urged them to come forward and report through the POCSO e-Box.
- **POCSO e-Box is a complaint management system that operates completely online for reporting sexual offences against children.** The e-Box can be accessed through the official website of National Commission for Protection of Child Rights.
- Anyone, a victim or an adult, can file a complaint about a child facing sexual abuse. For small children, the portal offers pictorial aides to make the procedure simple.
- The development assumes significance for child abuse survivors, who more often than not are turned away at police stations or during investigation when they gain the courage to report the matter as adults.

Wage Compensation Scheme For Pregnant Women In Assam

Syllabus: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes

In News

- Assam has recently launched a **wage compensation scheme for pregnant women** in tea gardens of the state.
- The tea-producing belt of upper Assam, comprising Dibrugarh, Jorhat, Sivasagar and Tinsukia, has one of the country's **worst maternal mortality rates (MMR)** due to anaemia and other diseases,

and has been a major cause of worry as the pregnant women labourers in the tea gardens have to work through their pregnancy till the time of delivery.

- The Annual Health Survey of 2012-13 puts MMR at 404 in the tea gardens, whereas the state's average is 301. The national average during 2014-16 was 130.
- The main objective is to provide better health and nutritional supplements to pregnant women, and reduce maternal and neonatal mortality. For this, each woman will get **Rs 12,000** so that she can look after herself and her unborn baby without affecting the livelihood of her family.
- As per the scheme, the first instalment of Rs 2,000 will be provided during the Ante-Natal Check-up (ANC) registration within the first trimester, second instalment of Rs 4000 during the sixth month of the pregnancy, the third instalment of Rs 3000 during delivery at a government-approved health institution and the fourth installment of Rs 3,000 during the sixth week post-delivery.
- They will also not be engaged in work from the third trimester of pregnancy to three months after delivery.
- All temporary, permanent or non-workers living within the tea garden areas will be eligible for the scheme.
- An amount of more than Rs 55 crore has been allotted in the State Health Budget for the financial year 2018-19 for this scheme which will benefit nearly 48,000 pregnant women every year.

First Regional Conference on Women in Detention and Access to Justice

Syllabus: Mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections

In News

- The Bureau of Police Research and Development (BPR&D), Ministry of Home Affairs recently organised the first ever Regional Conference on **Women in Detention and Access to Justice** at Shimla.
- It will be attended by prison officials, representative from Universities/ Institutions, NGOs, health professionals, social workers, counsellors working in the field of correctional administration, and rehabilitation of prisoners.
- The conference is organised with a view to provide a platform for the prison personnel of all ranks at the national level to share their views on various operational as well as administrative issues not only with their counterparts, but also with other experts of national repute in this field and also to identify best practices and standards in the working of correctional administration.

Issues Faced By Women In Prisons

- Women in prisons face greater hardships than their male counterparts due to many factors such as **social stigma, financial dependence** on their families or husbands. These difficulties are further exacerbated when the woman has children.
- Women have to face numerous problems in prisons owing to **inadequacy of female staff** which often leads to male staff becoming responsible for female inmates, which is undesirable.
- Women are at a most disadvantageous position when it comes to their **reintegration in society after release**. Many are abandoned or harassed post-release, mainly due to the stigma attached with incarceration,
- Further, women tend to **lose ties with their children** over the years, due to inadequate child custody procedures.

- Also, a **robust grievance redressal mechanism** is found to be lacking to tackle cases of sexual harassment, violence and abuse against women in jails.

Cabinet Approves Instant Triple Talaq Ordinance

Syllabus: Mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections

In News

- With the **Muslim Women (Protection of Rights on Marriage) Bill, 2017** stuck in the Rajya Sabha, the Union Cabinet approved an ordinance on to ban instant triple talaq.
- The government explained that the pressing need for an ordinance was the continued practice of this form of talaq despite the Supreme Court judgment.
- The promulgation of the ordinance follows the declaration of instant triple talaq as unconstitutional and invalid by the Supreme Court in 2017 (**Shayara Bano v. Union of India**). The court had held that instant triple talaq given by a Muslim man capriciously and whimsically, without an attempt at reconciliation, was *manifestly arbitrary and violative of Article 14* of the Constitution.

For provisions and analysis of the Triple Talaq Bill 2017, please refer August 2018 CA Magazine.

A Note

- The discriminatory nature of triple talaq is, of course, undeniable, but the government's approach flattens an issue that has more than one dimension.
- There is no evidence to show that the incidence of instant talaq had reached alarming levels to warrant the hasty promulgation of an ordinance.
- The complexity of the triple talaq issue demanded thorough legislative scrutiny. By rushing through with the ordinance, the government has lost the chance to give the law the nuance such a process would have afforded.

WHO's First Global Conference On Air Pollution And Health

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

- The first Global Conference on Air Pollution and Health was recently held at the World Health Organisation's headquarters in **Geneva**.
- The conference was held in collaboration with UN Environment, World Meteorological Organization (WMO), the Secretariat of the UN Framework Convention on Climate Change (UNFCCC), the Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants (CCAC) and the United Nations Economic Commission for Europe (UNECE).
- A WHO report titled "**Air Pollution And Child Health: Prescribing Clean Air**", launched on the eve of the conference, examines the heavy toll of both ambient (outside) and household air pollution on the health of the world's children, particularly in low and middle-income countries.

Report Findings

- More than nine out of 10 people on the planet breath dangerously toxic air, causing some seven million premature deaths each year.
- Around 600,000 children died from acute lower respiratory infections caused by dirty air in 2016.

- Children in poorer countries are far more at risk, with around 98 per cent of all children under five in low- and middle-income countries exposed to PM2.5 levels above WHO air quality guidelines.
- It also reveals when pregnant women are exposed to polluted air, they are more likely to give birth prematurely and have small, low birth-weight children.
- The report compiles evidence on a host of impacts including poor birth outcomes, infant mortality, adverse effects on neurodevelopment, weight issues, respiratory effects and cancers, concluding that air pollution impacts children in 'uniquely damaging ways.'

Indian Scenario

- Alarmingly, 14 out of the 20 most polluted cities in the world are in India.
- More than two million deaths occur in India prematurely every year, accounting for 25 % of the global deaths due to poor air quality.
- The air pollution related mortality and disease burden India faces is also the highest in the world.
- Most Indian cities, unlike Delhi, do not have an emergency response plan to tackle air pollution.

Objectives and Outcomes of the Conference

- The conference focussed on presenting evidence, identifying gaps and solutions, and were targeted at practitioners and other technical and political representatives from the health sector and other sectors relevant to the discourse.
- Member states, mayors, heads of Intergovernmental organizations, institutions, and non-state actors launched voluntary commitments, new initiatives, financial support, partnerships and other actions to tackle air pollution while promoting health.
- It called for an acceleration of the switch to clean cooking and heating fuels, and for the promotion of cleaner transportation, lower emissions, and better waste management, among other measures.
- The outcome document included a plan of action and an overall goal to reduce the 7 million deaths per year due to air pollution. These actions will contribute significantly towards achieving the Sustainable Development Goals 3- Good Health and Well-Being, SDG 7- Affordable and Clean Energy, SDG 11- Sustainable Cities and Communities and SDG 13- Climate Action.

SC Decision On Use Of Firecrackers

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

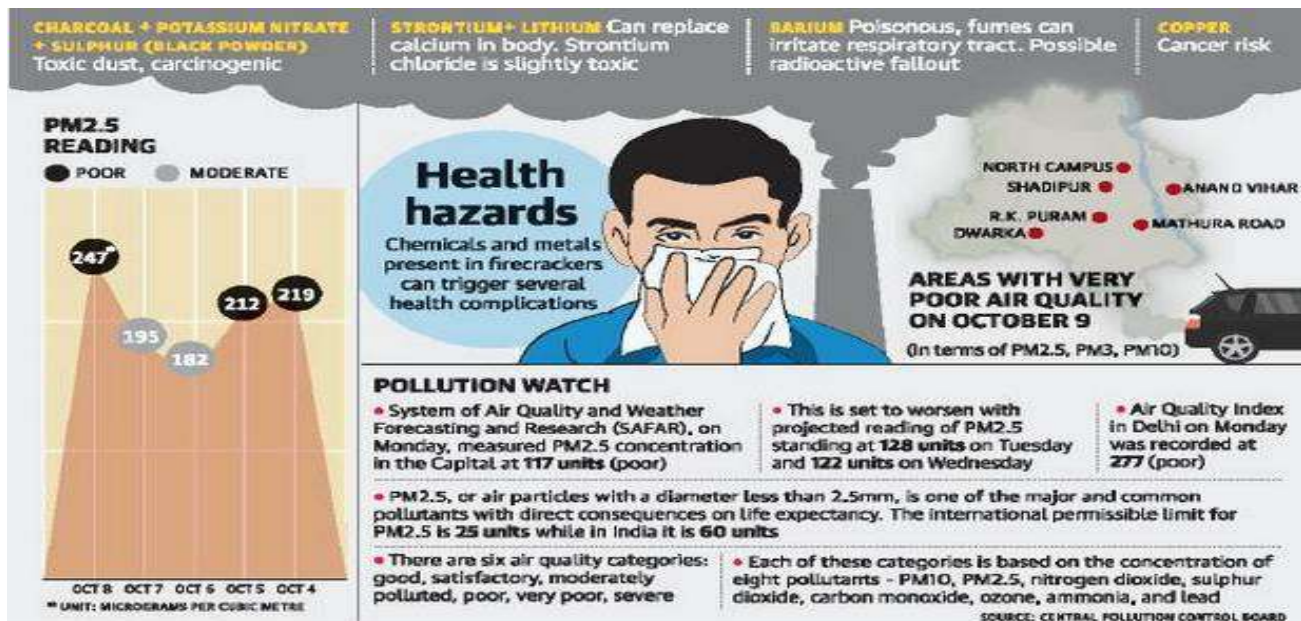
In News

- The Supreme Court has struck a balance between the interests of the firecracker industry and the right to public health, allowing the manufacture and sale of only green and reduced emission or improved crackers, while banning those that are loud and toxic to man, animal and the environment.
- The ban came on the basis of a petition filed by two infants through their fathers in 2015. They said the air pollution caused by various factors, especially firecrackers, made Delhi a gas chamber. They pleaded for their Right to life.

Decision of SC

- **Green crackers:** A Bench of Justices A.K. Sikri and Ashok Bhushan held that only green or improved crackers would be used during religious festivals and other occasions, including weddings through licensed traders.

- **Timing:** The judgment reduced the time for bursting crackers to two hours *i.e.* between 8 p.m. and 10 p.m. For Christmas and New Year, the time slot allowed is half-an-hour, between 11.55 p.m. and half past midnight.
- **Online sale:** The judgement also banned online sale through e-commerce websites, including Flipkart and Amazon.
- **Community bursting:** The court urged the Central and State governments to permit community bursting of crackers during festivities in pre-designated areas. In the case of Delhi and the National Capital Region, the court made it mandatory and gave the Centre, the Delhi government, a week's time to identify these pre-designated areas.
- **Not an essential practice of religion:** The Court rejected arguments that bursting crackers was a fundamental right under Article 25 (right to religion) and an **essential practice** during religious festivals like Diwali. The court held that Article 25 is *subject to Article 21* (right to life).
- **Banned the use of certain substances:** Banning the use of *barium salts* in fireworks, the court entrusted the *Petroleum and Explosives Safety Organisation (PESO)* with the job of ensuring that only fireworks with permitted chemicals were sold or purchased during festivities or celebrations; test and check for the presence of banned chemicals like *lithium/arsenic/antimony/lead/mercury*.
- **Punitive action by PESO:** PESO has been empowered to suspend the licences and appropriately dispose of stocks of manufacturers who violated the court's directions.
- **Banned Use of Laris:** The court banned the manufacture, sale and use of joined firecrackers (series crackers or 'laris'), holding that they caused huge air, noise and solid waste problems.



Final Analysis

- **Implementation issues:** This year there it is a partial ban on use of firecrackers. The SC has done its job, but the two-hour limit won't be implementable on the ground.
- **Livelihood issues:** The industry argued that the revenue from the manufacture and sale of fireworks came to *Rs. 6000 crore* a year. There is a fear that many worker's livelihoods are at stake as there are many units that are exclusively involved in making sparklers and other light-emitting products.

- **Lack of specific study:** Some have also argued that there was no definite study to show that bursting of crackers worsened the air quality during festivals such as Deepavali.
- **Imposition from above:** the failure of the ban also bares the absence of an adequate groundswell of public opinion against firecrackers. It has to be realized that pollution control is more a matter of individual action rather than legal diktat and coercive controls.

Way Forward

- The governments must adopt a phased plan to give teeth to the verdict, rather than going for an outright ban on sale of firecrackers, which was attempted with mixed results last year.
- Similarly, last year's ban on sale of firecrackers may have succeeded in ensuring a cleaner Diwali than previous years but cracker bursting was still widely prevalent. However, awareness can play a key role in triggering reform.
- The recent emphasis on scientifically improving firecracker composition holds great promise. The development of **green crackers** with lower emissions and producing water particles that suppress dust and **electronic crackers at CSIR labs** must be adopted by the industry.
- The government also needs to crackdown on **Chinese crackers**, which are cheaper and no less toxic, and have made rapid inroads into market.
- With a phased multipronged plan and public participation, firecracker production, sale and use can be regulated. It is a test of state capacity and individual civic spirit.
- A similar and even stringent approach is required to limit other sources of pollution throughout the year, which includes badly planned and managed mobility and transport sector along with polluting industries and power plants.

Swasth Bharat Yatra

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

- The government has recently launched a national campaign **Swasth Bharat Yatra**, under which a pan-India cycle rally is being organised to sensitise people about *eating safe food, combat food adulteration, and be healthy* which will compel food businesses to manufacture only those products.
- The campaign has been launched by central government, in association with states, from Oct' 16 on occasion of the World Food Day. The World Food Day is celebrated every year on Oct' 16 in honor of the date of founding of the Food and Agriculture Organisation of United Nations in **1945**.
- The **Food Safety and Standards Authority of India (FSSAI)** is leading this campaign where about 7,500 cyclists are expected to participate in over 18,000 km relay cycle rally to propagate the message **Eat Right India**.
- The volunteer cyclists would stop at 2,000+ locations and conduct in-city and en-route activities and Prabhat Pheris to propagate the message.
- Although the country does not have an issue with availability and affordability of food but there is an issue with the quality and safety of food. Hence the campaign would not only mobilise the masses but also create a large pool of local community to sustain the movement.

India Ranked 5th In Pictorial Warning On Tobacco Products

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

- India has been ranked 5th in terms of the largest pictorial warning on cigarette packs with 85 % of both sides of the packets covered. It shows that the country is making tremendous progress towards creating public awareness on the health hazards of tobacco abuse.
- The Cigarette Package Health Warnings: International Status Report was released recently by the Canadian Cancer Society which documents global progress on plain packaging.
- Canadian Cancer Society is a national, community-based organisation of volunteers whose mission is the eradication of cancer and the enhancement of the quality of life of people living with cancer.

Report's Findings

- The report ranks 206 countries and territories on the size of their health warnings on cigarette packages and lists countries and territories that require graphic picture warnings.
- East Timor is ranked first with 85% of the front and 100% of the back of the packaging being used for pictorial warnings. Nepal follows with 90% coverage on both sides.
- The report found that 118 countries and territories have now made picture health warnings on cigarette packages mandatory, up from 100 in 2016. Canada was the first to insist on picture health warnings in 2001.

Indian Scenario

- Indian packaging has the warning on 85% of both sides. Moreover, India is the **only SAARC country** to have a Quit-Line number on tobacco products and the fourth in Asia after Thailand, Malaysia and Singapore.
- The current pictorial warnings in India came into effect in April 2016 on the direction of the Rajasthan High Court and, subsequently, the Supreme Court of India.
- In a country like India, where people use several languages and dialects, the pictorial warning transcends the language and in many cases also the illiteracy barrier.
- The 85% pictorial warnings on all cigarettes, bidis and chewing tobacco packages manufactured and sold in India have resulted in 92% of adults (surveyed under GATS 2016-2017) believing that smoking caused serious illness and 96% saying use of smokeless tobacco causes serious illness.
- Moreover, pictorial health warnings on tobacco products are the most cost-effective tool for educating people on the health risks of tobacco use.

WHO Guidelines On Sanitation And Health

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

- World Health Organization (WHO) recently launched its **first global guidelines on sanitation and health**.
- It has developed the new guidelines on sanitation and health because current sanitation programmes are not achieving anticipated health gains and there is a lack of authoritative health-based guidance on sanitation.

- Worldwide, 2.3 billion people lack basic sanitation (with almost half forced to defecate in the open). They are among the 4.5 billion without access to safely managed sanitation services – in other words a toilet connected to a sewer or pit or septic tank that treats human waste.
- Without proper access, millions of people the world over are deprived of the dignity, safety and convenience of a decent toilet.
- Transmission of a host of diseases, including cholera, diarrhoea, dysentery, hepatitis A, typhoid and polio, is linked to dirty water and inadequately treated sewage.
- Further, poor sanitation is also a major factor in transmission of neglected tropical diseases such as intestinal worms, schistosomiasis and trachoma, as well as contributing to malnutrition.
- The world will not reach the goal of universal sanitation coverage – where every person in the world has access to toilets – by 2030 unless countries make comprehensive policy shifts and invest more funds.
- By adopting the new guidelines, countries can significantly reduce the 8,29,000 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.
- The guidelines go on to state that sanitation interventions should ensure entire communities have access to toilets; the full sanitation system should undergo local health risk assessments to protect individuals and communities from exposure resulting from unsafe toilets.
- Sanitation should be integrated into regular local Government-led planning to avert higher costs associated with retro-fitting sanitation and to ensure sustainability.
- The health sector should invest more and play a coordinating role in sanitation planning to protect public health.
- Sanitation is a fundamental foundation of human health and development and underpins the core mission of WHO and ministries of health worldwide. The guidelines will go a long way in securing health and wellbeing for everyone, everywhere.

Swachh Survekshan Grameen Awards 2018

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

- The Ministry of Drinking Water and Sanitation had commissioned “Swachh Survekshan Grameen-2018” (SSG 2018) through an independent survey agency to develop ranking of all districts of India on the basis of quantitative and qualitative sanitation parameters.
- In all, 6786 villages in 685 Districts across India were covered. The ranking was done based on surveys of public places like schools, Anganwadis, PHCs, haat/ bazaars, Panchayat and citizen’s perception of Swachhata and their recommendations for improvement of the program and data from the SBM-G MIS.
- Awards for Swachh Survekshan Grameen (SSG) 2018 were recently conferred at the concluding session of Mahatma Gandhi International Sanitation Convention.
- **Overall Ranking:**
 - **Top 3 States-**1) Haryana, 2) Gujarat 3) Maharashtra
 - **Top 3 Districts** 1) Satara, Maharashtra 2) Rewari, Haryana 3) Pedapalli, Telangana

- **States with maximum citizen participation** 1) Uttar Pradesh 2) Gujarat 3) Maharashtra
- **Districts with maximum citizens' participation** 1) Nashik, Maharashtra 2) Solapur, Maharashtra 3) Chittorgarh, Rajasthan
- SSG 2018 turned out to be massive mass mobilisation exercise with communities in each village undertaking special drives to improve the general cleanliness in their villages and Gram Panchayats investing funds from their local area development fund to augment the sanitation situation in public places.

IIT Bombay Tops in QS Rankings

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

- The **Indian Institute of Technology Bombay has emerged on top** in the first-ever standalone prestigious Quacquarelli Symonds (QS) rankings (a British company specialising in education) for Indian institutions of higher education.
- The India University Rankings is the second country-specific rankings done by QS, after it released one for China on October 10. The table reflects country's top 75 institutions.
- Seven out of the top ten positions were occupied by IITs in these rankings as IIT Madras, IIT Delhi and IIT Kharagpur bagged the third, fourth and fifth slots respectively. IISc bagged the second spot on the list.

Global Rankings

- The QS world rank list released has ranked 1011 institutes in 85 countries.
- Massachusetts Institute of Technology (MIT) is the world's best university as per the list.
- In the World University rank list, IIT Bombay has been placed 162 rank followed by the foremost research institute of India IISc at 170.
- Explaining the variance in performance of Indian institutions in the domestic and international tables, QS informed that the ranking criteria for both was different.
- Institutions have been scored on academic reputation (30 %), employer reputation (20 %), faculty-student ratio (20 %), proportion of staff with PhD (10 %), papers per faculty from Scopus database (10 %), citations per paper from Scopus database (5 %), proportion of international students (2.5 %) and proportion of international faculty (2.5 %).

IMPRESS and SPARC

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

The Union HRD Minister recently launched web portals of two schemes IMPRESS and SPARC, with an aim to build a research ecosystem in educational institutions.

IMPRESS Scheme

- The objective of **Impactful Policy Research in Social Sciences (IMPRESS)** is to identify and fund research proposals in social sciences with maximum impact on the governance and society.

- It will provide an opportunity for social science researchers in any institution in the country which includes all universities (central and state) and also a few private institutions meeting the requirement.
- The **Indian Council of Social Science and Research (ICSSR)** will be the project implementing agency and it will be implemented at a total cost of Rs. 414 crore till March, 2021.
- Under the Scheme, **1500 research projects will be awarded for 2 years** to support the social science research in higher educational institutions and to enable research to guide policy making.
- Research in social science is essential for progress of the society and the research carried out under IMPRESS scheme will be used to understand and solve problems facing the society.

SPARC

- The **Scheme for Promotion of Academic and Research Collaboration (SPARC)** aims at building the research ecosystem of India's higher educational institutions by facilitating academic and research collaborations between Indian and foreign institutions.
- **IIT-Khargapur** is the national coordinating institute to implement the SPARC programme.
- Under this Scheme, **600 joint research proposals will be awarded for 2 years** to facilitate strong research collaboration between Indian research groups with the best in class faculty and renowned research groups in the leading universities of the world, in areas that are at the cutting edge of science or with direct social relevance to the mankind, specifically India.
- A set of **5 Thrust Areas** (Fundamental Research, Emergent Areas of Impact, Convergence, Action-Oriented Research and Innovation-Driven) and sub-theme areas in each thrust area has been identified for collaboration under SPARC based on emergent relevance and importance for the nation.
- This Scheme is expected to have a major impact in providing the best international expertise to address major national problems, expose Indian academicians to the best collaborators abroad, enable international faculty to stay in India for a longer duration, provide Indian students an opportunity to work in the world class laboratories, to develop strong bilateral relationships in research and improve the international ranking of Indian Institutes.
- The research work under both the schemes would start from January next year.

Human Capital Index

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

- The World Bank has released a Human Capital Index (HCI) as part of the **World Development Report (WDR) 2019**. Broader theme of WDR this year is “**The Changing Nature of Work**”.
- As part of this report, the World Bank has launched a Human Capital Project (HCP). The HCP programme is claimed to be a program of advocacy, measurement, and analytical work to raise awareness and increase demand for interventions to build human capital.
- There are three components of HCP-
 - a cross-country human capital measurement metric called the Human Capital Index (HCI),
 - a programme of measurement and research to inform policy action, and
 - a programme of support for country strategies to accelerate investment in human capital.

- This index measures the amount of human capital that a child born today can expect to attain by age 18, given the risks of poor health and poor education that prevail in the country where he/she was born.
- According to the World Bank, Human capital consists of the knowledge, skills, and health that people accumulate over their lives, enabling them to realize their potential as productive members of society.
- The aim is to spur governments to invest more in people – increasing their budget allocations to health and education and stepping up the interventions made in these sectors.
- The HCI has three components:
 - **Survival:** A measure of whether children survive from birth to school age (age five)
 - **Education:** A measure of expected years of quality-adjusted school, which combines information on the quantity and quality of education
 - **Health:** Two broad measures of health—the rate of stunting for children under 5 and adult survival rates.

Comparison with Human Development Index (HDI)

- UNDP constructs Human Development Index (HDI) while World Bank releases HCI.
- The HCI uses **survival rates and stunting rate instead of life expectancy** as measure of health, and **quality-adjusted learning instead of merely years of schooling** as measure of education.
- HCI also excludes per capita income whereas the HDI uses it.
- Two significant changes from HDI are exclusion of income component and introduction of quality adjustment in learning.

Indian Performance

- India is ranked **115 among 157 countries** and is placed lower than its Asian peers viz. Nepal, Sri Lanka, Myanmar and Bangladesh.
- A child born in India today will be **only 44 % as productive** when he/she grows up if he/she enjoyed complete education and full health.
- The HCI in India for females is marginally better than that for males.
- **Probability of Survival to Age 5:** 96 out of 100 children born in India survive to age 5.
- **Expected Years of School:** In India, a child who starts school at age 4 can expect to complete 10.2 years of school by her 18th birthday.
- **Harmonized Test Scores:** Students in India score 355 on a scale where 625 represents advanced attainment and 300 represents minimum attainment.
- **Learning-adjusted Years of School:** Factoring in what children actually learn, expected years of school is only 5.8 years.
- **Adult Survival Rate:** Across India, 83 per cent of 15-year olds will survive until age 60.
- **Healthy Growth (Not Stunted Rate):** 62 out of 100 children are not stunted. 38 out of 100 children are stunted, and so at risk of cognitive and physical limitations that can last a lifetime.

Global Metrics

- The HCI measures the Index outcomes for each country as a fraction of maximum value of 1.

- For 56% of the world's population, the HCI is at or below 0.50; and for 92% it is at or below 0.75. Hence only 8% of the population can expect to be 75% as productive as they could be .
- **Singapore was ranked number one** in the world followed by followed by South Korea, Japan, Hong Kong and Finland.
- The advanced economies such as North America and Europe mostly have HCI value of above 0.75, while South Asia and Sub Saharan Africa have the lowest HCI among the regions.

Why India Rejected This Report

- There are serious reservations about the advisability and utility of this exercise of constructing HCI.
- There are major *methodological weaknesses, besides substantial data gaps*. For instance, for the schooling parameter, though quantity is assessed using enrolment rates reported by UNESCO, quality is gauged using harmonized test scores from major international student achievement testing programs.
- Due to lack of availability of an authoritative and uniform test score, about 9 different test scores and systems using varying methodology have been claimed to have been harmonized by the World Bank.
- None of the 9 systems cover more than 100 countries, with some have very limited regional coverage. This makes the methodology quite complex and non-uniform.
- As most nations have country-wide assessments of elementary education, which could have been used, this is not a reasonable approach.
- For India, the data for quality of education **pertains to 2009 assessment by PISA**, which was conducted for only two states, namely Himachal Pradesh and Tamil Nadu. The methodology for harmonization is hugely suspect, the data quite dated and consequently the results quite non comparable.
- Adult survival rates, stunting, and under 5 mortality are outcome indicators will change at a relatively slow rate as compared to process indicators used in computing for example the Ease of Doing Business. As a result, none can really be excited about setting out the programme of Index improvement.
- Several key factors, on the other hand, seem to have been neglected. As against the variability of outcomes for similar levels on investment, it would be more useful to developing countries if the Index focused on enabling them to measure and improve the cost-effectiveness of their spending on health and education.
- Also, the differences in development outcomes arising from governance issues, political systems, socio-cultural context, and legacy issues have been totally ignored.

International Relations

Wing Loong II

Syllabus: India and its neighbourhood- relations.

In News

- China has decided to sell 48 advanced armed drones to Pakistan. Called the Wing Loong II, the drone can be used for both combat and surveillance missions.
- the drones will enhance Pakistan's capabilities in the backdrop of India signing a deal with Russia for the S-400 missile defence system.

Key Highlights

- The Wing Loong II is an improved version of the Wing Loong 1 **Unmanned Aerial Vehicle**.
- Falling in the category of **Medium Altitude Long Endurance**, it is manufactured by the Chengdu Aircraft Industrial (Group) Company in China.
- The Wing Loong II can carry bombs and air-to-surface missiles. It is also integrated with day and infrared cameras and sensors to collect surveillance and targeting data. The UAV is remotely controlled from the mobile ground station.

What Does This Mean For India

- China is the largest supplier of military equipment to Pakistan. A deal providing 48 Wing Loong IIs could be China's largest export order for drones.
- The addition of the armed drones to Pakistan's arsenal will definitely enhance its surveillance and strike capabilities, especially along the border with India.
- However, India which currently does not have armed drones, signed a deal with Russia for the S-400 air defence system. The system can engage all types of aerial targets, including drones, within a range of 400 km.

A Political Crisis in Sri Lanka

Syllabus: India and its neighbourhood- relations.

In News

In an unexpected turn of events, President Maithripala Sirisena **sacked Prime Minister Ranil Wickramasinghe**, and **appointed former President and his political foe Mahinda Rajapaksa** as the new premier of Sri Lanka.

Key Highlights

- On 26 October 2018, Sri Lankan President Maithripala Sirisena withdrew his United People's Freedom Alliance (UPFA) from the coalition government with the United National Party (UNP).
- He sacked Prime Minister Ranil Wickramasinghe and replaced him with former President turned Member of Parliament Mahinda Rajapaksa.
- This was followed by further drama with the Speaker of the Parliament Karu Jayasuriya refusing to recognize Rajapaksa as the Prime Minister.
- As of now, Rajapaksa has announced his cabinet, while there are agitations in the streets in favour of Wickramasinghe.

Background

- Sirisena was a senior Cabinet member, including Minister of Health, in Rajapaksa's government during the latter's two terms as President from 2005 to 2014.
- He later joined hands with the UNP in November 2014 to contest and win the Presidential election as the common candidate against Rajapaksa, his long-term political partner.
- Sirisena explained that he had defected to the UNP and joined his long-term political rival Wickramasinghe to save the country from being steered towards a dictatorship and to prevent blatant abuse of power.
- Reportedly, hours after this election result was announced, *Rajapaksa failed in a coup attempt to wrestle the presidency from Sirisena.*

What Led To The Difference

- The Wickramasinghe-Sirisena alliance was viewed as a mismatch due to their political history. While Wickramasinghe represented centre-right political ideologies and liberal economic policies, Sirisena was a centre-left, people-centred nationalist.
- At the time of coming together, their primary objective was to defeat the strongman Rajapaksa.
- Later, Sirisena appointed a Presidential Commission of Inquiry into the Central Bank bond scam, which found a direct or indirect involvement of the UNP Members of Parliament.
- In late February 2018, the President disbanded the Prime Minister-led Economic Management Committee, indicating an internal conflict in the government.
- Sirisena's silence over the no-confidence motion raised in Parliament against Wickramasinghe by Rajapaksa's supporters in April 2018 fuelled speculations of the rift.
- As Sirisena himself stated, it is the revelation of a plot to assassinate him, and his suspicion of the intervention of UNP Members of Parliament to spread fake news of him *accusing the Indian Research and Analysis Wing's involvement in the assassination plot* that triggered his immediate action of replacing the Prime Minister.

Analysis

- India and China **appear to be on opposite sides** of the widening domestic divide. India – separated from the island republic by the Palk Strait that is barely 80 kilometres at its widest – has always been an important factor in Sri Lanka's domestic politics and international relations.
- Over the last decade, China's economic and political salience in Sri Lanka has steadily grown.
- The domestic politics of Sri Lanka, its economic choices and its foreign policy orientation have all become inextricably tangled with the deepening geopolitical tensions in the IndoPacific.
- As a power struggle unfolded in Colombo at the end of October, New Delhi and Beijing were quickly sucked into Sri Lanka's internal dynamics.
- Many in Colombo questioned the President's right to dismiss the Prime Minister under the constitution, Sirisena made matters worse by delaying a floor test of majority support in the Parliament.
- While Wickremesinghe claimed he still enjoyed the support of the majority, Sirisena appeared to be giving time to Rajapaksa to produce the necessary numbers by engineering defections.
- Beijing is throwing its political lot with Sirisena and Rajapaksa in Colombo's internal political contestation. After all, it was during Rajapaksa's years of presidency (2005-15) that China rapidly gained ground in Sri Lanka.
- Rajapaksa's decision to grant key strategic infrastructure projects to China, including the Colombo Port City, the Hambantota port and the Mattala airport, and his government's decision to host Chinese submarines generated much strategic anxiety in New Delhi and some concern in Washington.
- As Rajapaksa rode a wave of Sinhala nationalism and stepped up and won the war against the Liberation Tigers of Tamil Eelam, India's emphasis on the Tamil minority rights in Lanka was not welcome in Colombo.
- When he lost the presidency, Rajapaksa blamed New Delhi for his rout in the elections.
- Hence, India reacted more cautiously and slowly than China to the developments in Colombo. So far, India has emphasized on **legality and due democratic process**.

- India's diplomatic position was echoed by the European Union and the US. Brussels insisted on "due institutional process" and Washington declared that "it's up to the Parliament to decide who the prime minister is." While this mounts some pressure on Sirisena and Rajapaksa, they hope Beijing's support will turn the tide in their favour.
- It would be unwise, however, to frame the political struggle in Colombo as a zero-sum game between New Delhi and Beijing.
- The weight of geography and history will continue to make India relevant to whatever happens in Sri Lanka. China's enormous economic power and its growing stakes in the Indian Ocean make it a player to reckon with in Colombo.

Malaysia Decides to Abolish Capital Punishment

Syllabus: Effect of policies and politics of developed and developing countries on India's interests

In News

- The Malaysian Cabinet has decided to abolish the death penalty for all crimes and halt all pending executions.
- The government has taken the decision to scrap capital punishment following strong domestic opposition to the practice.

Key Highlights

- Currently, in Malaysia, capital punishment is mandatory for a wide range of crimes including murder, drug trafficking, treason, kidnapping, possession of firearms and acts of terror.
- Hanging till death is the prevalent form of death penalty in the country, which will be abolished once the Malaysian Parliament accedes to it.
- The decision will have a huge effect on those on a death row, such as the two women accused of assassinating the estranged half-brother of North Korean leader Kim Jong-un in 2017.
- In April 2017, the Amnesty International had ranked Malaysia at the 10th spot in the use of the death penalty among the 23 countries that carried out capital punishment in 2016.

Death Penalty Around The World

- Around 143 countries across the world have abolished this punishment as a form of punishment for crimes.
- The most recent countries to abolish capital punishment include Malaysia (2018), Burkina Faso (2018), Guinea (2017), Benin (2016), and Madagascar (2015).
- Every European country has abolished it, with one exception: Belarus.
- Overall, there are 52 countries- including *India, China, Japan, US*- which retain death penalty.
- According to Amnesty International's report on capital punishment in 2017, China is believed to be the 'world's top executioner'.

Death Penalty in India

- In India, capital punishment is awarded for murder, gang robbery with murder, abetting the suicide of a child or insane person, waging war against the government, and abetting mutiny by a member of the armed forces.
- It is also given under some anti-terror laws for those convicted for terrorist activities.

- The death sentence is imposed only when the court comes to the conclusion that life imprisonment is inadequate based on the facts and circumstances of the case.
- Recently, in 2018, India has introduced death penalty for those who rape children under age of 12.
- The Supreme Court in **Mithu vs. State of Punjab** struck down Section 303 of the Indian Penal Code, which provided for a mandatory death sentence for offenders serving a life sentence.
- The section was based on the logic that any criminal who has been convicted for life and still can kill someone is too cold blooded and beyond reformation, to be allowed to live.
- Further, in **Bachan Singh case**, the SC laid down the “**extraordinary circumstances**” which define whether or not death sentence was required in the said case.
- In **Shatrughan Chauhan v. Union of India**, SC further humanised the implementation of capital punishment.
- Prior to this judgment, it was well settled that once the courts have awarded the death sentence in the “**rarest of rare**” cases, the process surrounding the execution of the sentence is entirely in the domain of the executive, with any reform of this process on humanitarian grounds being left to the wisdom of Parliament.
- This status quo was challenged through this judgement and created new forms of the accountability of the executive at all stages of the pardon process, right from the level of the Ministry of Home Affairs all the way up to the office of the President of India.
- It will no longer be possible for the executive to give excuses for the delay in taking a decision on pardon petitions.

Recent Executions In India

- Yakub Memon - July 2015
- Afzal Guru: February 2013
- Ajmal Kasab - November 2012
- Dhananjoy Chatterjee – in 2004
- India saw an execution-free period of seven years between 2004 and 2012.

Law Commission Recommendation on Death Penalty

The Law Commission of India released a **report in 2015** recommending that the country must move toward abolishing the death penalty, except in terrorism cases to safeguard national security. The Law Commission report cited the following reasons while advocating the abolition of capital punishment:

1. **Developments in India** - India has made significant progress since the last report in 1967. The level of education, general well-being, and socio-economic developments are vastly different today.
2. **Death penalty as a deterrent is a myth**
3. **Arbitrary sentencing of capital punishment** - The Supreme Court has expressed concerns over arbitrary imposition of capital punishment. In most cases, the courts have affirmed or refused to affirm the death penalty without laying down legal principles.
4. **Long delays leading to extreme agony**
5. **International developments** - India has retained capital punishment while 143 countries have

abolished it in law or in practice. That leaves India in a club with the USA, Iran, China, and Saudi Arabia as a country which retains it.

US Currency Monitoring List

Syllabus: Effect of policies and politics of developed and developing countries on India's interests

In News

- The Treasury Department has said that US could *remove India from its currency-monitoring list* of major trading partners.
- This has been mentioned in its latest semi-annual report on **Macroeconomic and Foreign Exchange Policies of Major Trading Partners of the US**.

Key Highlights

- India was for the first time, in April 2018, placed by the US in its **currency monitoring list of countries with potentially questionable foreign exchange policies** along with five other countries — China, Germany, Japan, South Korea and Switzerland.
- In its latest report released the Department of Treasury maintained the same monitoring list.
- However, it added that *if India continued with the same practices* as in the last six months, it would be removed from its next bi-annual report.
- The Treasury praised India for being “exemplary” in publishing its foreign exchange market intervention.
- The Reserve Bank of India (RBI) had noted that the value of the rupee was broadly market-determined, with the intervention used only during “episodes of undue volatility”.

Fact:

- India was generally a net purchaser of foreign exchange from late 2013 to the middle of 2017, as the RBI sought to gradually build a stronger external buffer in the aftermath of the May 2013 “**taper tantrum**”.
- Purchases accelerated in the first half of 2017 amid strong portfolio inflows to India (and many other emerging markets); as a result, cumulative net purchases of foreign exchange exceeded 2% of GDP over 2017.
- Foreign exchange purchases generally declined in the second half of 2017, and the RBI shifted to selling foreign exchange in the first half of 2018.
- As of June 2018, foreign currency reserves stood at \$380 billion, equal to 3.7 times gross short-term external debt, eight months of import cover, and 14% of GDP.

Criteria For Putting A Country In Currency Monitoring List

- The findings are based on the three key criteria:
 - (1) a significant bilateral trade surplus with the United States,
 - (2) a material current account surplus, and
 - (3) engaged in persistent one-sided intervention in the foreign exchange market
- Once included, countries remain on the list for two report cycles to ensure that if there are any improvements in the performance of the country it should not be due to temporary reasons.

What Has Changed Now

- India’s circumstances have shifted markedly, as the central bank’s net sales of foreign exchange over the first six months of 2018 led net purchases over the four quarters through June 2018 to fall to \$4 billion, or 0.2% of GDP.
- This represented a notable change from 2017, when purchases over the first three quarters of the year pushed net purchases of foreign exchange above 2% of GDP.
- Recent sales came amid a turnaround in foreign portfolio inflows, as foreign investors pulled portfolio capital out of India (and many other emerging markets) over the first half of the year.
- The rupee depreciated by around 7% against the dollar and by more than 4% on a real effective basis in the first half of 2018.
- India has a significant bilateral goods trade surplus with the US, totalling \$23 billion over the four quarters through June 2018, but India’s current account is in deficit at 1.9% of GDP.
- As a result, India now only meets one of the three criteria from the 2015 Act. If this remains the case at the time of its next report, Treasury would remove India from the monitoring list.

MoU Towards Sittwe Port Operationalisation

Syllabus: Effect of policies and politics of developed and developing countries on India’s interests

In News

- India and Myanmar have signed an important MoU towards operationalisation of Sittwe port.
- It would lead to the appointment of a private Port Operator for the *Operation and Maintenance of Sittwe Port, Paletwa Inland Water Terminal* and associated facilities included in the **Kaladan Multi Model Transit Transport** Project.

About Kaladan Multi Modal Transit Transport

- The Kaladan Multi-Modal Transit Transport Project is a project that will connect the **eastern Indian seaport of Kolkata with Sittwe seaport** in Rakhine State, Myanmar **by sea**.
- In Myanmar, it will then link **Sittwe seaport to Paletwa**, Chin State **via the Kaladan river** boat route, and then from **Paletwa by road to Mizoram state** in Northeast India.
- The project will provide an alternate access route to the North-Eastern region of India and contribute towards the region's economic development.
- Being a key connectivity project, it will promote economic, commercial and strategic links between India and Myanmar.
- It also provides a strategic link to the North-East, thereby reducing pressure on the Siliguri Corridor.
- In the absence of an alternate route, the development of this project not only serves the economic, commercial and strategic interests of India, but also contributes to the development of Myanmar, and its economic integration with India.



- Since the project is of political and strategic significance, it was decided to execute it through **India's grant assistance to Myanmar.**

Visit of The President of Russia to India

Syllabus: Effect of policies and politics of developed and developing countries on India's interests

In News

- President of the Russian Federation, Vladimir V. Putin, paid an official visit to New Delhi from October 04-05, 2018, for the 19th India-Russia Annual Bilateral Summit.
- The last Annual Summit was held on June 1, 2017 during the visit of Indian Prime Minister to Russia.

Key Highlights

- The deal on the supply of the **S-400 Triumf missile system** was concluded. The leaders of both the countries also signed eight pacts in areas ranging from defence, nuclear energy, space and economy.
- List of Agreements/MoUs Exchanged between India and Russia during Visit of President of Russia to India are:
 - Protocol for Consultations between the Ministry of Foreign Affairs of Russian Federation and MEA for the period 2019-2023
 - MoU between the Ministry of Economic Development of the Russian Federation and NITI Aayog
 - MoU between Indian Space Research Organization (ISRO) and the Federal Space Agency of Russia 'ROSCOSMOS' on Joint Activities **in the field of Human Spaceflight Programme Gaganyaan.**
 - Memorandum of Cooperation between the Indian and Russian Railways to build **modern railroads**
 - MoU between the Russian Ministry of Transport and Indian Railways in the Development Cooperation in **Transport Education**
 - Action Plan for Prioritization and Implementation of **Cooperation Areas in the Nuclear Field**
 - MoU between the National Small Industries Corporation (NSIC), of India and the Russian Small and Medium Business Corporation (RSMB), on **Cooperation in the field of Micro, Small and Medium Enterprises**
 - Cooperation Agreement in the **Fertilizers Sector** between the Russian Direct Investment Fund" ("RDIF"); PJSC Phosagro (PhosAgro) and Indian Potash Limited (IPL)
- Both leaders have discussed in detail Kudankulam nuclear power plant in Tamil Nadu--the fourth and fifth units of the plant are being constructed and the fourth and fifth will be constructed next.
- According to India's agreement with Russia, 12 units will be built in the next 20 years.

S-400 Air Defence Missile System

- A missile defence system is intended to act as a shield against incoming ballistic missiles.
- The **Russian-built S-400 Triumf** — identified by NATO as the SA-21 Growler — is the world's most dangerous operationally deployed modern **long-range surface-to-air missile system,**

and is considered **much more effective than the Terminal High Altitude Area Defence (THAAD) system** developed by the US.

- The S-400 is a mobile system that integrates a multifunction radar, autonomous detection and targeting systems, anti-aircraft missile systems, launchers, and a command and control centre.
- It can be deployed within five minutes, and is capable of firing three types of missiles to create a layered defence.
- It can engage all types of aerial targets including aircraft, unmanned aerial vehicles, and ballistic and cruise missiles within a range of 400 km, at an altitude up to 30 km.
- It can simultaneously track 100 airborne targets, including super fighters such as the US-built F-35, and engage six of them at the same time.
- The S-400 was made **operational in 2007**, and is responsible for defending Moscow. It was **deployed in Syria in 2015** to guard Russian and Syrian naval and air assets.

Why India Need This?

- India must have the capability to thwart missile attacks from the two likeliest quarters, Pakistan and China.
- Beijing signed a deal with Moscow in 2015 to buy six battalions of the S-400 system, and deliveries began in January 2018.
- While the Chinese acquisition has been seen as a “gamechanger” in the region, the concern for India is limited because of the system’s range. However, the S-400 can play a **crucial role in case of a two-front war**.

US In Picture

- In August 2017, President Donald Trump signed into law the Countering America’s Adversaries Through Sanctions Act (CAATSA), which specifically targets Russia, Iran, and North Korea.
- The act empowers the US President to impose at least five of 12 listed sanctions — enumerated in Section 235 — on persons engaged in a “significant transaction” with the Russian defence and intelligence sectors.
- In July 2018, the US communicated that it was ready to grant India (along with Indonesia and Vietnam) a waiver on the CAATSA sanctions. The waiver also conveyed the acceptance by the US that India could not be dictated on its strategic interests by a third country.
- Moments after India and Russia signed S-400 deal air defence system deal, the US embassy in India said that the US sanctions were aimed to punish Russia, **not to damage military capabilities of 'our allies'**.

Analysis Of This Visit

- The 19th bilateral summit between Prime Minister Narendra Modi and President Vladimir Putin left a **mixed feeling** about the current state of the Indo-Russian relationship and its future prospects.
- Though important deals including the supply of the S-400 Triumf missile system was concluded, a number of questions pertaining to the future trajectory of bilateral ties still remain.
- Earlier it was reported that the two sides would sign a “political document” with a clause on unacceptability of imposition of sanctions not approved by the United Nations. However, **the word “sanctions” did not even figure** in the joint statement.

- Surprisingly, now that CAATSA is a major challenge in Indo-Russian defence cooperation, Moscow and New Delhi seem to have decided to downplay the issue of sanctions by omitting any mention of it in the current joint statement. The idea probably is **not to further irritate Washington**.
- Reference to defence cooperation is very short and placed somewhere in the middle of the joint statement. The two leaders did not elaborate on the bilateral military partnership. This raises the important issue of taking defence cooperation forward.
- Also, the deal on the S-400 was neither announced by the leaders nor mentioned in the list of agreements. The possible explanation could be to demonstrate that bilateral ties *do not revolve around defence alone* and that it is not the sole sphere of cooperation.
- Surprisingly, the widely discussed deals on Kamov helicopters and Krivak/Talwar class frigates were not concluded.
- It was left to be discussed at the **Inter-Governmental Commission on Military-Technical Cooperation** scheduled to take place in December 2018.
- There is a growing perception in Russia that India has been slowly drifting away and, as a consequence, imports of Russian arms is likely to shrink in size. In such scenario, the finalisation of contracts will be an **important indicator of the trajectory** of Indo-Russian defence cooperation.
- Amidst the **American sanctions on Iran** becoming a new reality, several projects that both New Delhi and Moscow are interested in are under threat of being shelved.
- This was reflected in the joint statement where Iran was mentioned several times: Firstly, in the context of the upcoming trilateral meeting on the side-lines of “Transport Week-2018” in Moscow and, secondly, in support of the Joint Comprehensive Plan of Action (JCPOA) on the Iranian nuclear programme.
- Dialogue on regional dynamics and maritime cooperation has turned into an integral part of India’s engagement with the US, Japan, Australia, France and other regional players. However, Moscow and New Delhi are **yet to begin consultations on regional issues**.
- This can be seen from the fact that the Russian version of the Indian Prime Minister’s statement **did not include the word “Indo-Pacific”**.
- The Indo-Pacific concept is not endorsed by Russian officialdom. Thus, the usage of terms is an indicator of different prisms through which Moscow and New Delhi view regional processes. Their approaches towards the Indo-Pacific are thus **not broadly congruent**.

Conclusion

While adjusting and adapting to the geopolitical challenges, the two countries cannot afford to overlook bilateral issues that remain chronically unresolved. The India-Russia partnership, albeit showing some positive signals by way of increased interaction at the top most level, is still lagging behind in many spheres.

Visit of Indian Prime Minister To Japan

Syllabus: Effect of policies and politics of developed and developing countries on India’s interests

In News

- Prime Minister of India Shri Narendra Modi visited Japan on October 28-29, 2018 for the India-Japan Annual Summit with Prime Minister of Japan Mr. Shinzo Abe.
- This was the 13th such annual summit and fifth for current Indian Prime Minister.

Key Highlights

Besides the five annual summits during which both the leaders have met, there are six other occasions on which they have also met in the sidelines of international and multilateral meeting. So far, they have **already met 12 times** in the past four and a half years.

A) Announcements

- Japan announced **joining the International Solar Alliance** (ISA) submitting the instrument of ratification. It became the 71st country to join ISA and 48th country to ratify it.
- Exchange of Notes concerning the provision of seven Yen loan projects including
 - Project for the Construction of *Mumbai-Ahmedabad High Speed Rail*,
 - Project for Renovation and Modernization of *Umiam-Umtru Stage-III Hydroelectric Power Station*,
 - *Delhi Mass Rapid Transport System Project* (Phase 3),
 - *North East Road Network Connectivity Improvement Project*,
 - Project for the Construction of *Turga Pumped Storage*,
 - Project for the Construction of *Chennai Peripheral Ring Road* and
 - Project for Sustainable Catchment *Forest Management in Tripura*

B) MoUs Signed:

- Implementing arrangement for deeper cooperation between Japan Maritime Self-Defence Force and Indian Navy
- MoC on **Japan-India Digital Partnership** to tap into the synergies and complementarities between Japan's "Society 5.0" and India's flagship programmes like "Digital India", "Smart City" and "Start-up India" in areas of next generation technologies such as Artificial Intelligence (AI), and IoT (Internet of Things) etc.
- Statement of Intent between NITI Aayog and Ministry of Economy, Trade & Industry (METI), Japan on Artificial Intelligence (AI) to encourage and develop **cooperation on AI technologies**
- MoU between Export Credit Guarantee Corporation of India and NEXI, Japan for *stimulating trade and investment between India and Japan and strengthening cooperation in projects in third countries*.
- MoU between Council of Scientific and Industrial Research (CSIR), India and Hiroshima University, Japan **for Research Partnership** to promote research partnership in areas such as Electronics, Sensors, High Speed Vision, Robotics, Advanced Manufacturing including Mechatronics, Environmental Research, Intelligent Transportation, etc.
- MoU between CSIR, India and Research Centre for Advanced Science and Technology (RCAST), University of Tokyo, Japan **for Research Partnership** to promote research partnership in areas like Renewable Energy, Electronics including Robotics/IoT, Advanced Materials, etc.
- MoU on Further Cooperation toward Indo-Japan Global Startup between Nagasaki University and IIITDM Kancheepuram, India.
- MoU between Sports Authority of India (SAI), India and University of Tsukuba, Japan for academic exchanges and sports cooperation

India- Japan Fact Sheets**1. India-Japan Development Cooperation in the Indo-Pacific, including Africa**

- Synergizing India's "**Act East Policy**" and Prime Minister Modi's **10 guiding principles** for India's sustained and regular engagement with African countries, with Japan's "**Expanded Partnership for Quality Infrastructure Initiative**" and **TICAD VI Nairobi declaration**
- **Cooperation in Sri Lanka**, such as the development of LNG-related infrastructure
- **Cooperation in Myanmar**, synergizing development efforts in the Rakhine State by collaborating in housing, education and electrification projects
- **Cooperation in Bangladesh**, for enhancing connectivity by way of four-laning of road and reconstruction of bridges on the Ramgarh to Baraiyarhat stretch, and providing rolling stock and constructing the Jamuna Railway Bridge over the Januma River
- **Cooperation in Africa**, such as organising an SME development seminar in Kenya and seeking a possibility of a collaborative project in the area of health service such as developing a cancer hospital in Kenya.

2. India-Japan Cooperation Act East Forum

- The Act East Forum established last year has served as a driving force to advance India-Japan cooperation in the North-East.
- *Meghalaya North East Connectivity, Sikkim: Biodiversity Conservation & Forest Management, Nagaland: Forest Conservation Livelihood Improvement, Japan-India North East Bamboo Initiative* are few examples highlighting the cooperation between these two countries under this forum.

3. India-Japan Economic and ODA Cooperation

- Japan's ODA to many projects has contributed to the socio-economic development of India.

4. India-Japan Security and Defence Cooperation

- India and Japan have made significant progress in the last decade in fostering joint efforts towards shared security since the announcement of the **India-Japan Joint Declaration on Security Cooperation in 2008**.
- Both countries attach importance to the **Malabar exercise**, regular Passage Exercises (**PASSEX**) and other joint exercises including the first counter terrorism exercise between the Japan Ground Self-Defense Force (JGSDF) and the Indian Army as well as Japan Air Self-Defense Force's (JASDF) participation as observer in **Cope India** and welcome increased cooperation with like-minded countries.

India - Japan Vision Statement

During the visit, recognizing the unparalleled potential for development of relations between the two countries, Prime Minister Modi and Prime Minister Abe outlined the following shared vision for the future of India-Japan relations:

- India and Japan must endeavour to work together for a **rule-based and inclusive world order** guided by the universal values of freedom, humanism, democracy, tolerance and non-violence.
- The two leaders also affirmed that **ASEAN unity and centrality are at the heart of the Indo-Pacific concept**, which is inclusive and open to all. They shared willingness to *expand concrete cooperation with the U.S. and other partners*.
- The two leaders' **vision for the Indo-Pacific** is based on a rules-based order that respects sovereignty and territorial integrity of nations, ensures freedom of navigation and overflight as well as unimpeded lawful commerce, and seeks peaceful resolution of disputes with full respect for legal and diplomatic processes in accordance with the universally recognised principles of international law, including those reflected in the UNCLOS, without resorting to threat or use of

force.

- For **Partnership for Prosperity**, the two Prime Ministers reviewed with satisfaction the cooperation on development of connectivity via quality infrastructure, and other projects including capacity building. This synergy is embodied in collaborative projects between India and Japan in the Indo-Pacific region, including in Sri Lanka, Myanmar and Bangladesh as well as in Africa.
- In this regard, the two Prime Ministers welcomed the discussions for establishing the "**Platform for Japan-India Business Cooperation in Asia-Africa Region**" to further enhance the exchanges between Japanese and Indian businesses toward developing industrial corridors and industrial network in the region.
- The two Prime Ministers remain committed to **synergising India's demographic dividend and Japan's capital and technology** to realise the true potential of the India-Japan economic partnership for a prosperous future. In this regard, India welcomed Japan's strong support for key transformational initiatives such as "Make in India", "Skill India" and "Clean India Mission".
- For **Partnership for Peace**, they reaffirmed their desire to further deepen bilateral security and defence cooperation and institute Foreign and Defence Ministerial Dialogue (2+2), in addition to existing mechanisms, including the Annual Defence Ministerial Dialogue, Defence Policy Dialogue, the National Security Advisers' Dialogue, Staff-level Dialogue of each service.
- For cooperation between India and Japan on **defence equipment and technology**, both leaders further reaffirmed to promote interaction between Indian and Japanese defence industries and relevant authorities, and also welcomed the commencement of the cooperative research in the area of Unmanned Ground Vehicle (UGV) and Robotics.
- The two sides will continue to make efforts with regard to cooperation on US-2 amphibian aircraft.
- Both leaders decided to launch an **Annual Space Dialogue** for enhancing bilateral cooperation in outer-space. Both leaders also welcomed the technological collaboration between their respective agencies in the Joint Lunar Polar Exploration Mission.
- The two leaders reaffirmed their shared commitment to the total **elimination of nuclear weapons** and remained resolute in the task of strengthening international cooperation to address the challenges of nuclear proliferation and nuclear terrorism.
- The two leaders called for an immediate commencement and early conclusion of negotiations on a non-discriminatory, multilateral, and internationally and effectively verifiable **Fissile Material Cut-off Treaty (FMCT)** on the basis of Shannon Mandate.
- The two Prime Ministers condemned in the strongest terms the **growing threat of terrorism** and its universal reach. They called upon all countries to work towards rooting out terrorist safe havens and infrastructure, disrupting terrorist networks and financing channels, and halting cross-border movement of terrorists.
- India and Japan seek **expeditious and meaningful reforms of the United Nations**, in particular the comprehensive reform of the United Nations Security Council (UNSC), to make it more legitimate, effective and representative, taking into account the contemporary realities of the 21st century.
- For **Partnership for Global Action**, the two Prime Ministers underlined the importance of their growing collaboration for achieving the Sustainable Development Goals (SDGs).
- Underscoring the need for concerted global action to combat climate change, in line with the

Paris Agreement adopted under UN Framework Convention on Climate Change (UNFCCC), they shared the view to play a leading role in this field and reiterated their commitment to finalising the work programme for implementation of the Paris Agreement and accelerate further **consultations for establishing the Joint Crediting Mechanism**.

- Both leaders reaffirmed their commitment to strengthening cooperation on sustainable and clean forms of energy, including nuclear and renewables; explore possibilities for collaboration in hydrogen-based energy.
- They also expressed their commitment for cooperation in use of clean coal technology, petroleum and natural gas projects and LNG supply chain and welcomed "**Japan-India Energy Transition Cooperation Plan**".
- They acknowledged the importance of effective implementation of the **Sendai Framework for Disaster Risk Reduction 2015-2030**, in areas such as early warning mechanism, water resource management, use of space-based technology and disaster resilient infrastructure.
- The two leaders underlined the crucial role of the rules-based multilateral trading system and shared the **urgent necessity to reform the WTO** leading to the reinforced functioning of the WTO and to free, fair, and open trade, for achieving sustainable growth and development.
- They reaffirmed the strategic importance of the early conclusion of the negotiations for a high-quality, comprehensive and balanced **Regional Comprehensive Economic Partnership (RCEP) Agreement** for realising full benefits of a free and open Indo-Pacific region.
- They underscored their mutual trust and deep faith in the maturity of the India-Japan **Special Strategic and Global Partnership** today and the immense promise it holds for the future of the two countries as they jointly endeavour to build a more secure, peaceful and prosperous region and the world.

Visit of External Affairs Minister to State of Qatar and State of Kuwait

Syllabus: Effect of policies and politics of developed and developing countries on India's interests

In News

- External Affairs Minister Smt. Sushma Swaraj visited two countries in the Gulf region from 28 to 31 October 2018.
- The visit was in pursuit of India's objective of enhanced engagement with the Gulf region which is in India's extended neighbourhood.

Key Highlights

A) Qatar

- India and Qatar share millennia old historic multi-dimensional, relations. The bilateral visit of His Highness the Emir of the State of Qatar in March 2015 and His Excellency Prime Minister of Qatar to India in December 2016 and that of the visit of Indian Prime Minister Shri Narendra Modi to Qatar in June 2016 have further boosted traditionally cordial and close ties between the two countries.
- Qatar hosts about seven lakh Indians who form the largest expatriate community there.
- Qatar is a reliable energy partner, supplying more than 50% of India's natural gas imports. Our bilateral trade with Qatar in 2017-18 was US\$ 9.9 billion.
- During the first ever visit of External Affairs Minister of India Smt. Sushma Swaraj to Doha on 28-30 October 2018, both countries have decided to establish a **Joint Commission to strengthen the**

relations between the two countries in various fields with a view to further the common interests of their two friendly peoples.

- The Joint Commission will be charged with the following tasks:
 - Formulating the required basis to strengthen the relations between the two countries particularly in the economic, commercial, cultural, scientific, technological, information technology and educational fields.
 - Following up the implementation of the Agreements concluded between the two countries; and finding the suitable solutions for the resulting problems of the implementation thereof.
 - Facilitating the exchange of information and expertise; and encouraging bilateral consultation in service of cooperation between the two countries.
- The Joint Commission will be co-chaired by the Ministers of External Affairs and Foreign Affairs of the two countries or their representatives; and may include in its membership representatives of the sectors concerned with the bilateral cooperation in both the countries.

B) Kuwait

- India and Kuwait have close and friendly bilateral relations. Kuwait is a reliable energy supplier to India and hosts about ten lakh Indians forming the largest expatriate community. Our bilateral trade with Kuwait in 2017-18 was US\$ 8.5 billion.
- Agreement between the Government of the Republic of India and the Government of the State of Kuwait on mutual exemption from visa requirements for holders of Diplomatic, Special and Official Passports was signed during the visit.

U.S. Exit from INF Treaty

Syllabus: Bilateral, regional and global groupings and agreements.

In News

- President Donald Trump announced at a campaign rally on October 20 that the United States would withdraw from the **Intermediate-range Nuclear Forces (INF) Treaty**.
- The United States will exit the agreement six months after it gives formal notification.

The INF Treaty

- Ronald Reagan and Mikhail Gorbachev signed the INF Treaty in December 1987.
- The INF Treaty **banned all U.S. and Soviet land-based cruise and ballistic missiles** with ranges between 500 and 5,500 kilometers.
- It entered into force in summer 1988.
- Three years later, the United States and Soviet Union had destroyed almost 2,700 missiles as well as their launchers, all under the **most intrusive verification measures** ever agreed, including on-site inspections.
- The treaty also led to the end of a dangerous standoff between US Pershing and cruise missiles and Soviet SS-20 missiles in Europe.

Why US Took This Step

- US blames Russia of cheating and not adhering to the treaty. According to it, Russia developed and deployed a land-based cruise missile of intermediate-range, identified in 2017 as the 9M729.

- US hawks have also argued that the INF treaty ties the country's hands **in its strategic rivalry with China** in the Pacific, with no response to Chinese medium-range missiles that could threaten US bases, allies and shipping.

Analysis

- Many analysts have described the abandonment of the accord as a "**dangerous and destabilizing move**" with the potential revert the world back to the worst days of the Cold War.
- It was a **landmark treaty** in many ways. When enforced, the pact eliminated all ground-launched nuclear missiles with a range of 300 to 3,000 miles and aimed at the total destruction of over 800 U.S. missiles in Europe and 1,700 Russian missiles in Asia and Europe.
- Moscow appeared satisfied with the treaty's performance up until the early 2000s.
- Senior Russian officials then began to express concern that, while the United States and Russia could not have intermediate-range missiles, third countries could. (The exceptions were Belarus, Kazakhstan and Ukraine, which, like Russia, remained party to the INF Treaty after the Soviet Union's collapse.)
- Third countries such as South Korea, North Korea, China, India, Pakistan, Iran, Saudi Arabia and Israel have developed and deployed intermediate-range missiles, with China producing hundreds. Each of these countries is geographically much closer to Russia than it is to the United States.
- Hence, many analysts believe that by announcing the U.S. intention to withdraw, Trump has set in motion a train that will leave Washington and be seen as responsible for killing the treaty.
- In addition, withdrawal from the treaty will allow the Russians to deploy land-based intermediate-range missiles without constraint, missiles for which the U.S. military currently has no land-based counterpart. It will be a **win-win for Moscow**.
- Many critics view this decision as part of the US policy course to **withdraw from those international legal agreements that place equal responsibilities** on it and its partners and make vulnerable its concept of its own 'exceptionalism'.

Trade Deal Replacing NAFTA

Syllabus: Bilateral, regional and global groupings and agreements.

In News

- The US and Canada have reached a new trade deal, along with Mexico, to replace the current North American Free Trade Agreement (NAFTA).
- The new deal has been named as the **United States-Mexico-Canada Agreement (USMCA)** and is expected to be signed by the three North American countries before the end of November

Key Highlights

- The new USMCA is intended to last 16 years and be reviewed every six years.
- The deal has 34 chapters and governs more than \$1tn (£767bn) in trade.
- The new deal gives the US greater access to Canada's dairy market whilst Canadian car makers will be protected from US tariffs.
- In addition, according to the deal, 40% of car parts of vehicles produced in the USMCA area must be made in areas of North America, paying wages of \$16 an hour.

- On the lumber (or wood) industry, Canada secured protection from US anti-dumping tariffs through the preservation of a dispute-settlement mechanism.
- The new deal has, for the first time, set rules for financial-services and digital businesses and intellectual property that have emerged since the bloc was created.
- The deal, however, failed to resolve U.S. tariffs on Canada's steel and aluminum exports.

Background

- US President Donald Trump, during Presidential campaign, labelled NAFTA "the worst trade deal" ever signed by the US.
- He blamed NAFTA for wiping out US manufacturing jobs because it allowed companies to move factories to Mexico where labour is cheaper.
- In April 2017, US President threatened to pull out of the trade agreement. Canada and Mexico insisted to renegotiate it instead, and Trump agreed.
- As per the NAFTA agreement, a country **can withdraw** from it after **giving six months notice**.
- The US made a deal with Mexico in August 2018, but relations with Canada over the trade pact had become increasingly strained in recent weeks.
- Finally, the US President had imposed September 30 midnight deadline to reach the deal.

Why September 30 as Deadline?

- The Trump administration has been working to sign a new trade deal before Mexican President Enrique Pena Nieto leaves office on December 1.
- To meet that deadline, the text of the agreement had to be submitted to Congress before October so that US congress gets sufficient time to review.

Analysis Of The Current Deal

- The new deal is expected to **re-balance US' trade relations** with Mexico and Canada.
- It has also **modernized** what was covered in NAFTA by including new area such as Digital processing and IPR etc.
- After this deal, it will be **harder, or at least more expensive, for car makers** to use parts from outside North America, notably from China. American dairy farmers are getting better access to the highly protected Canadian market.
- Many analysts believe that the **new deal would be able to reduce the imbalance** in US international trade, with individual trade partners and globally.
- However, many economists **do not think trade balances are primarily the outcome of trade policy** - instead they reflect government borrowing, private investment and savings decisions and international capital movements.
- The powerful Dairy Farmers of Canada group, **which opposes increased US access** to Canadian markets, released a statement saying "any final NAFTA deal should have no further negative impact on the dairy sector".

About NAFTA:

- NAFTA stands for the **North American Free Trade Agreement** to lift tariffs (taxes on imports and exports) on virtually all goods traded among the US, Canada, and Mexico.
- NAFTA came into effect on January 1, 1994, after it was signed on December 17, 1992.

- The aim of NAFTA was to make it easier for companies in the three countries to do business across borders.
- The argument for NAFTA was that - by boosting economic integration - there would be increased economic prosperity in all three countries.

Has US Lost Jobs Because Of NAFTA?

- Since NAFTA, trade quadrupled among the three countries, surpassing \$1tn in 2015.
- Economists Shushanik Hakobyan and John McLaren studied NAFTA's effect on the US labour market in 2016. They found a **severe impact on income among blue-collar workers** in the most affected industries and areas.
- College-educated workers were less likely to be affected, they said, and executives saw some benefits. The **most affected workers were college dropouts** working in industries that depended heavily on tariff protections in place prior to NAFTA.
- However, many economists note that manufacturing employment was already in decline before NAFTA was signed.
- They attribute much of the decline to **automation in US industry**. Companies have been able to increase output with fewer workers.
- Also, **US tariff cuts** on Mexican trade under NAFTA were implemented at roughly the same time as tariff cuts with most other countries as the US entered the World Trade Organization (WTO) in 1995.
- Competition from **Chinese exports** increased during the same time period and boomed as China joined the WTO in 2001. Economists are more united in the view that the US has lost more jobs to China than to Mexico.

Impact on Mexico and Canada

- NAFTA gave a **major boost to Mexican farm exports** to the US, which have tripled since NAFTA's implementation.
- Hundreds of thousands of **Mexican auto-manufacturing jobs** have also been created, and most studies have found that the pact had a positive impact on Mexican productivity and consumer prices.
- But there are **significant downsides**: Mexico's economy grew at an average rate of just 1.3 percent a year between 1993 and 2013 during a period when Latin America was undergoing a major expansion, and poverty remains at similar levels to 1994, while mass unemployment has increased.
- Some believe that, instead of fulfilling its promise of providing cheaper food to Mexicans, NAFTA **deepened Mexico's dependency on food imports**, leaving it unprotected from volatility in international food prices and exchange rates.
- According to one study, Canada has seen strong gains in cross-border investment in the NAFTA era.
- Since 1993, *US and Mexican investments in Canada have tripled*. Canadian agriculture, in particular, saw a boost, while employment in Canadian manufacturing held steady.
- However, the "**productivity gap**" between the Canadian and US economies remains wide: Canada's labour productivity remains at 72 percent of US levels.

India And 1951 United Nations Refugee Convention Or Its 1967 Protocol

Syllabus: Bilateral, regional and global groupings and agreements.

In News

- India has neither signed nor ratified the 1951 United Nations Refugee Convention or its 1967 Protocol. Despite this fact, India continues to host a large population of refugees on its soil.
- India is home to diverse groups of refugees, ranging from Buddhist Chakmas from the Chittagong Hill Tracts of Bangladesh, to Bhutanese from Nepal, Muslim Rohingyas from Myanmar and small populations from Somalia, Sudan and other sub Saharan African countries.
- Many critics argue that it is precisely the large numbers that enjoin upon India the duty to enshrine in law how these refugees will be treated.
- In the absence of any domestic law or regional South Asian framework, India has desisted from taking its rightful regional leadership role in this increasingly critical matter.

Reasons

- The reasons are chiefly security-related. The government's stand is that borders in South Asia are **extremely porous** and any conflict can result in a mass movement of people.
- This can have two results: first, **a strain on local infrastructure and resources** in countries that are poorly equipped to deal with sudden spikes in population. Second, it can upset the **demographic balance**.
- Another argument is that India already does its duty, so where's the need to sign this piece of paper? It mostly **does not even take UN money** to look after the refugees.
- Another reason offered by some scholars is that India retains a degree of **scepticism about the UNHCR**, which apparently flows from the Bangladesh war of 1971.
- Although, UNHCR played a stellar role in helping devise India's administrative response to Bangladeshi refugees. However, India was upset that the UNHCR began talking about the need for repatriation of refugees only in June 1971.
- It was the time when Pakistani atrocities were causing millions more to flee to India. New Delhi felt talk of repatriation at that particular point in time gave the wrong signals to the world.
- Additionally, India was far from pleased by a visit to Bangladesh (then East Pakistan) by the UNHCR high commissioner, Sadruddin Agha Khan, on the invitation of Pakistani president Yahya Khan. This was seen as an **endorsement of Pakistani propaganda** that its eastern territory was normal.

India Elected to UNHRC

Syllabus: Important International institutions, agencies and fora- their structure, mandate.

In News

- India has been elected to the United Nations' top human rights body for a period of three years beginning January 1, 2019.
- The 193-member UN General Assembly held elections in United Nations for new members to the UNHRC. The 18 new members were elected by absolute majority through a secret ballot. Countries needed a minimum of 97 votes to get elected to the Council.

Key Highlights

- India was vying for a seat in the Asia-Pacific category. Along with *India, Bahrain, Bangladesh, Fiji, and Philippines* had also staked a claim in the same regional group.
- Given that there were five nations vying for five seats in the Asia Pacific category, all the countries were likely to get elected.
- India will join Pakistan, China and Nepal, which were elected to the Council in previous years.
- India secured 188 votes in the Asia-Pacific category, the **highest number of votes** among all candidates. Countries need a **minimum of 97 votes** to get elected to the Council.
- India had **previously been elected** to the Geneva-based Human Rights Council for the 2011-2014 and 2014-2017 term.
- Its last tenure had ended on December 31, 2017 and in accordance with the rules, it was not eligible for immediate re-election since it had already served two consecutive terms.

Facts:

- Created by the Assembly in March 2006 as the principal United Nations body dealing with human rights, the Human Rights Council comprises 47 elected Member States.
- On the basis of equitable geographical distribution, Council seats are allocated to the **five regional groups** as follows: African States, 13 seats; Asia-Pacific States, 13 seats; Eastern European States, 6 seats; Latin American and Caribbean States, 8 seats; and Western European and other States, 7 seats.
- India was among the **first batch of 47 countries** elected to the Council in 2006 soon after it was set up and received an initial one-year term instead of three to facilitate a rotating roster of vacancies each year.

IORA Countries Adopt The Delhi Declaration

Syllabus: Important International institutions, agencies and fora- their structure, mandate.

In News

- 21 countries in the Indian Ocean Rim Association (IORA) have adopted the **Delhi Declaration on Renewable Energy in the Indian Ocean Region**.
- Adoption of the declaration took place at *2nd IORA Renewable Energy Ministerial Meeting* held at the 2nd Global Re-Invest India-ISA Partnership Renewable Energy Investor's Meet & Expo in Greater Noida.

Key Highlights

- The declaration calls for **collaboration** among IORA member states in meeting the growing demand for renewable energy in the Indian Ocean littorals, **development** of a common renewable energy agenda for the Indian Ocean region and **promote** regional capacity building.
- It also calls for *promotion of technology development and transfer, strengthening of public private partnerships* in renewable energy and *collaboration among IORA member states and the member nations of the International Solar Alliance (ISA)*.
- IORA member countries also resolved to collaborate with the International Renewable Energy Agency (IRENA).
- Additionally, IORA member nations and IRENA will undertake the **expansion of the Global Renewable Energy Atlas** the world's largest-ever joint renewable resource data project coordinated by IRENA).

- This collaboration would result in creation of the Indian Ocean region's first and most comprehensive map and database which can then be used to tap the sizable renewable energy potential of the region.

About IORA

- The Indian Ocean Rim Association was set up with the objective of strengthening regional cooperation and sustainable development within the Indian Ocean Region with 21 Member States and 7 Dialogue Partners.
- India, Australia, Iran IR, Indonesia Thailand, Malaysia, South Africa, Mozambique, Kenya, Sri Lanka, Tanzania, Bangladesh, Singapore, Mauritius, Madagascar, UAE, Yemen, Seychelles, Somalia, Comoros and Oman are members of IORA.
- The last Renewable Energy Ministerial Meeting was held on 21st January, 2014 in Abu Dhabi, UAE. Subsequently, during the meeting of IORA Council of Ministers, held in October, 2016 in Bali, Indonesia, it was decided that the next conference will be held in India.

Economic Growth and Development

IL&FS Financial Woes

Syllabus: Indian Economy and Issues relating to mobilization of resources.

In News

- The government has sacked the 15-member board of bankrupt Infrastructure Leasing & Financial Services (IL&FS) and appointed a new board headed by banker **Uday Kotak** in a major attempt to boost investor confidence scalded by the infra firm's defaults and fears of a market wide credit freeze.
- This is the second major intervention by the authorities to stop system wide panic, nearly a decade after the government stepped in to take over the affairs of **Satyam Computer Services in 2009**.
- Confidence was shaken after IL&FS, with a debt of Rs 91,000 crore, started defaulting on loan repayments beginning end of August 2018. Rating companies that had rated all its bonds triple A, immediately downgraded them to junk, sending investors scurrying for cover.
- A probe by the Serious Fraud Investigation Office (SFIO) into IL&FS's books was also announced.

Reason For Crisis

- **Overall reasons:** The IL&FS crisis is a combination of poor management, possible malfeasance, and systemic deficiency.
- **Asset liability mismatch:** Founded in 1987, IL&FS has executed many infrastructure projects in a country where long-term funding was nearly absent. While it built projects, it over-leveraged its balance sheet and created asset-liability mismatches (taking short term loans to fund long term infra projects), making timely payments difficult.



- **Economic issues:** Globally, there have been models like this one where an institution acts as an infrastructure developer and as financier too, but it is fraught with risk given the high leverage. Those risks are amplified in India because of frequent policy changes, projects stalling and the constraints in pricing in the infrastructure sector and the failure to enforce contracts.
- **Problem with credit ratings:** All those who invested in commercial paper and longer-term bonds issued by IL&FS and other non-banking finance companies were guided by the superlative ratings these instruments had been given by assorted rating agencies. But virtually overnight, ultra-safe debt instruments turned into junk.
- **Poor corporate governance:** But a crisis of this nature puts the spotlight again on the entire framework of corporate governance, particularly the institution of independent directors. Not enough has changed, evidently, after the Satyam scam. India has a distance to go to make independent directors sufficiently accountable.

Way Forward

- IL&FS is a private company, but has an aura of a PSU, making it easy to seek and give favours at political and bureaucratic levels. That must end. For the new board and government, the job should

not end with a resolution plan. It should go hand in hand with a forensic audit and fixing of accountability.

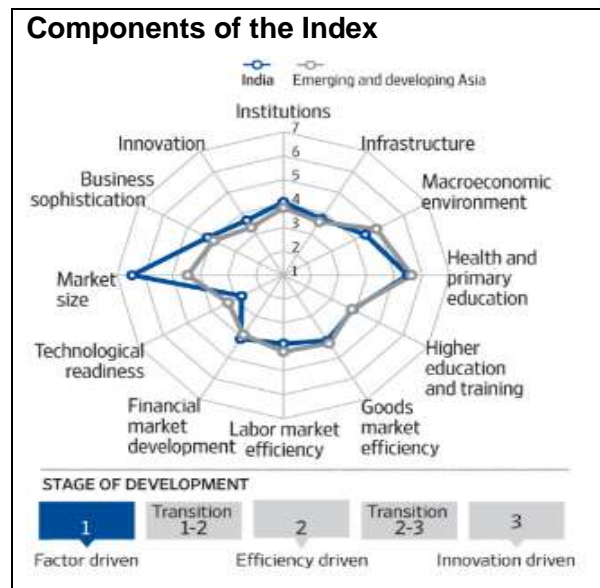
- Moreover, the rating agencies must be accountable for their rating. To bring market discipline to their work, they could be asked to buy insurance for the liability they bear, on account of damages payable to investors who lost money because of their unreliable work. Insurance companies would charge the rating agencies premia depending on their assessment of the robustness of their methods of risk assessment.
- Finally, the Infrastructure should not depend on either banks or private lenders who raise short-term money to lend long term. Thus, without concerted efforts to remove the systemic problems in financing infrastructure, future crises of the IL&FS type cannot be prevented.

World Economic Forum’s Competitiveness Index for 2018

Syllabus: Indian Economy and Issues relating to planning, mobilization of resources, growth, development

In News

- India has improved its ranking by five places the largest gain among all G20 countries to emerge the world’s **58th most competitive economy** in the WEF’s latest Global Competitiveness Index. (India finished with overall score of 62).
- **Components of GCI:** The WEF’s Global Competitiveness Index 4.0 is a composite indicator that assesses a set of factors that determine an economy’s level of productivity, widely considered as the most important determinant of long-term growth. The GCI 4.0 framework is built around **12 main drivers of productivity** as shown in figure here.
- The **US**, with a score of 85.6, topped the index for the first time since 2008.
- **Top 10 countries** - USA (1st), Singapore (2nd), Germany (3rd), Switzerland (4th), Japan (5th), Netherlands (6th), Hong Kong (7th), United Kingdom (8th), Sweden (9th) and Denmark (10th)
- 17 of the 34 sub-Saharan African economies are among the bottom 20. Mauritius (49th) leads the region, ahead of South Africa and nearly 91 places ahead of **Chad (140th)**.
- **BRICS Ranking** – Brazil (72), Russia (43), India (58), China (28), South Africa (67).



India Specific Observation

- The country registered the largest gain of any country in the G20 as it has jumped spot from 2017.
- The report highlighted that India is a remarkable example of a country that has been able to accelerate on the pathway to innovation due to the quality of its research institutions.
- India ranked highest among South Asian countries. Sri Lanka was ranked 86th, Bangladesh 103rd, Pakistan 107th and Nepal 109th.

- **Strength and areas for improvement:** The WEF report counted market size as India's biggest strength. The areas where the country needs to improve include labour market (in particular workers' rights), product market (in particular trade tariffs) and skills (in particular pupil-teacher ratio). As per the report, India leads the region in all other areas of competitiveness except for health, education and skills. India currently ranks 108th on the Health pillar and 96th on the Skills field of the index.

Ten Key Takeaways For All Economies

1. **Competitiveness is not a luxury good** - All economies must pursue the drivers of productivity, regardless of their current level of income or current areas of strength
2. **Investing in people is good for social and economic outcomes** - In fact, the health, education and skills of a population are among the key drivers of productivity, particularly in the context of economic and technological transformations.
3. **Embracing globalization in the 4th IR goes beyond free trade** - More open economies are more innovative and their markets more competitive.
 - However, the definition of openness must look to concepts beyond trade and include the freedom of people's movement and ideas exchange. Collaboration across borders is particularly critical for a dynamic innovation ecosystem.
 - Using such a definition, the report found that Singapore, Germany, Netherlands, Sweden, Finland and the United States are some of the **most open countries** in the world, while **Brazil and India emerge as relatively "closed"**.
4. **Open economies must also embrace social protection** - Attempting to address inequality by reversing globalization is counterproductive.

Instead of protecting specific jobs or the products resulting from those jobs, policies should focus on improving the conditions of those specifically impacted by globalization through redistributive policies, safety nets, investments in human capital, more progressive taxation, and opportunities to transition to new economic opportunities.
5. **Creating an innovation ecosystem goes well beyond research and development** - While scientific publications, patent applications, R&D expenditure and research institutions are all well-established aspects of developing innovation capability, they are not enough.

For good ideas to move through to commercialization, a number of "softer" factors are equally important. This includes the ability of companies to **embrace disruptive ideas**, the **attitude toward entrepreneurial risk**, **diversity of the workforce**, and **flat hierarchical structures** in companies.
6. **Technology offers a path to economic leapfrogging but only in combination with other factors** - Critical Factors like institutions, infrastructure and skills also play important role.
7. **Institutions still matter** - Governments must pay attention to both traditional and emerging aspects of the institutional environment as a factor of productivity.

Weak institutions—*defined as including security, property rights, social capital, checks and balances, transparency and ethics, public-sector performance and corporate governance*—continue to be the Achilles heel hindering competitiveness.
8. **Infrastructure and the financial system also play an important role**
9. **In a time of constant change, there is a need for constant agility** - Amidst the transformations and disruptions brought about by the 4IR, the adaptability and agility of all stakeholders—individuals, governments, and businesses—will be key features in successful

economies.

- 10. Achieving equality, sustainability and growth together is possible – but needs proactive, far-sighted leadership** - The most competitive economies have the largest ecological footprints, but they are the most efficient (their footprint per unit of GDP is the lowest).

It is therefore incumbent upon leaders to set longer-term priorities and put in place proactive efforts to create virtuous cycles between equality, sustainability and growth.

High-level Panel Suggest UN Model For Cross Border Insolvency Cases

Syllabus: Indian Economy and Issues relating to mobilization of resources.

In News

- A high-level panel headed by Corporate Affairs Secretary Injeti Srinivas has recommended a United Nations Commission on International Trade Law (UNCITRAL) Model Law of Cross Border Insolvency, 1997 to deal with cross-border insolvency cases under the Insolvency and Bankruptcy Code (IBC).
- The UNCITRAL Model Law has been adopted in **44 countries** and therefore, forms part of international best practices in dealing with cross border insolvency issues.
- The necessity of having a cross-border insolvency framework under the IBC arises from the fact that many Indian companies have a global footprint and many foreign companies have a presence in multiple countries, including India.

The Recommendations

- **Main principles:** The model law deals with four major principles of cross-border insolvency, including direct access to foreign insolvency professionals and foreign creditors to participate in or commence domestic insolvency proceedings against a defaulting debtor.
- **Principal of cooperation:** Other key principles include recognition of foreign proceedings and provision of remedies, cooperation between domestic and foreign courts and domestic and foreign insolvency practitioners. Another principle pertains to coordination between two or more concurrent insolvency proceedings in different countries.
- **Centre of main Interests:** The model will be based on the basis of **Centre of main Interests (COMI)**, which would be defined. In accordance with COMI, the place of main proceedings for cross border cases would be decided.
- **Main advantages:** The main advantages of the Model Law are the precedence given to domestic proceedings and protection of public interest. The other advantages include greater confidence generation among foreign investors, adequate flexibility for seamless integration with the domestic insolvency law and a robust mechanism for international cooperation.

Direct Tax Base Widens Sharply Over 4 Years

Syllabus: Indian Economy and Issues relating to mobilization of resources.

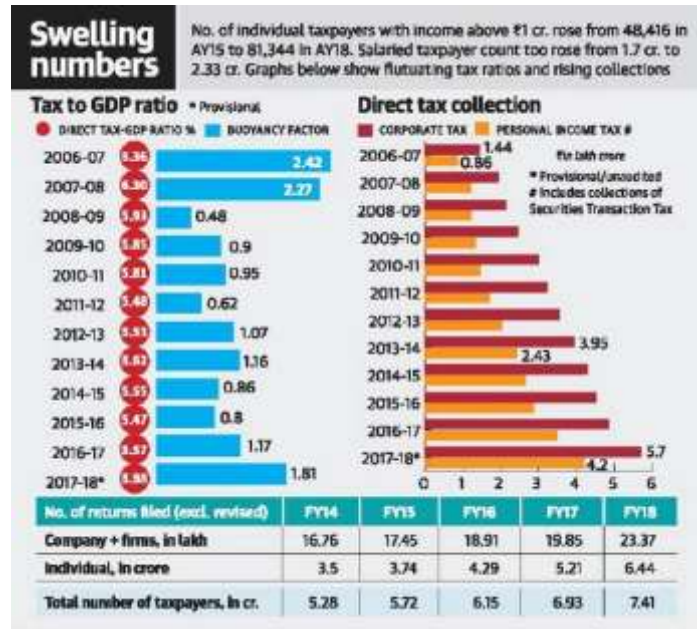
In News

- The direct tax base has significantly widened in the last few years, according to new back series data released by the government. The data shows that a growth of more than 80% in the number of returns filed in the last four financial years from 3.79 crore in financial year (FY) 2013-14 to 6.85 crore in FY 2017-18. The data also showed that the **Direct Tax-to-GDP ratio rose to 5.98%** in FY 2017-18, the highest it has been in the last 10 years.

- Further, the number of **persons filing income tax returns** also increased by about 65% during this period from 3.31 crore in FY 2013-14 to 5.44 crore in FY 2017-18.
- **Increase in income declared:** There has been continuous increase in the amount of income declared in the returns filed by all categories of taxpayers over the last three assessment years. For FY 2014-15, the declared gross total income of Rs. 26.92 lakh crore, which has increased by 67% to Rs. 44.88 lakh crore for FY 2017-18.

Final Analysis

- **Impact of various measures:** The data shows the higher level of compliance resulting from various legislative and administrative measures taken by the government, including effective enforcement measures against tax evasion.
- **The other reason for increasing compliance:** There may be four reasons for increase in the number of tax returns, *one*, the effect of demonetisation, *two*, the increase in the use of information being collected digitally and being used by the tax department. *Three*, the movement towards digital assessment and decrease in the number of cases being picked up for scrutiny and *four*, the ease of getting refund, majorly by small and medium taxpayers. The last two have reduced fear of the tax department among these sections of taxpayers.



- **Direct tax collection still lower:** The contribution of direct taxes to the total amount of taxes collected by the government, which is currently 52.29%, is still below what it was in 2014. It is also far too low when compared to its peak of over 60% in 2009-10. In other words, most of the rise in the total tax collection in the last few years has come from indirect tax collections. A further increase in the share of direct taxes will help the government to lower regressive indirect taxes that impose a significant burden on the poor.
- **Corporate tax collection still lower:** For much of the improvement in direct tax compliance in the last four years has come from plucking low-hanging fruit *i.e.* cracking down on cases of individual evasion, while the compliance culture remains poor among businesses. What's worse, nearly two-thirds of the taxable income declared in 2017-18 came from individuals. This indicates either that a vast majority of Indian businesses are operating at an abysmally poor scale or that tax evasion is quite pervasive. Both require policy fixes.

Way Forward

- Thus, reforms must aim at doubling the tax collections by the Centre and the states combined that stands at around **17% of GDP**. The tax department also need to augment its capacities by recruiting specialists and breaking down silos between its direct and indirect tax departments for seamless information sharing. The Centre too must make a concerted push for formalization, if this anti-evasion drive is to net the really big fish.

- Ideally, the government must raise the income threshold for the maximum marginal income tax rate of 30% to kick in, rather than lower the tax rate. However, India's corporate tax rate must come down to below 20%, to ASEAN levels. It will create an incentive for individuals to incorporate their businesses and become more transparent.
- Moreover, making compliance easy and taking tough action against evaders will push up the cost of non-compliance higher than the cost of compliance, and encourage people to pay up.
- Data also show that the number of salaried taxpayers, whose taxes are diligently deducted at source, is rising at a faster pace than the non-salaried. Hounding of salaried taxpayers is avoidable. Tax evasion is more common among the self-employed and in the unorganised sector. So, the need is to bring large swathes of the informal sector under GST and make them formal.

Government Cuts Fuel Rates

Syllabus: Indian Economy and Issues relating to mobilization of resources.

In News

- With global crude prices surging and the rupee weakening, the Centre announced a cut of Rs 2.50 per litre for petrol and diesel and urged states to match the price reduction.
- Of the Rs 2.50 per litre reduction, Rs 1.50 per litre of excise duty cut would be borne by the central government and the impact of the remaining Re 1 per litre cut would be absorbed by oil marketing companies.

Analysis

- **Fuel economic growth:** Some have also called the decision a good economics as what people save on fuel will be directed into consumption, thus fueling economic activity.
- **Consumer friendly measure:** It is also been seen as a consumer friendly measure that will ease the burden on the common man and probably, even lift up sentiment ahead of the festival season.
- **Ease inflation:** The move will possibly ease inflationary pressures due to the reduction in prices of petroleum. Thus, cut is also a signal to the RBI on the Centre's commitment to keep inflation in check.
- **Return of government control:** The move to make state-owned oil firms absorb Re 1 per litre was seen as a return of government control over pricing.
- **Loss of revenue:** The decision to cut excise duty by Rs 1.50 per litre will cost the Centre Rs 10,500 crore this financial year.
- **Hurt private retails:** Price controls on transport fuels are likely to hurt the expansion of private petrol pump chains of Rosneft-led Nayara Energy, Shell Plc and Reliance Industries amid concerns that rising global crude prices and approaching elections may tempt the government to give a heavy subsidy to sales by competing outlets of state firms.

Way Forward

Centre and State governments should focus on reducing the long-term dependency of the Indian economy on imported fuels, through stronger public urban transport and infrastructure development for electric vehicles.

Kalyani Panel Suggests Delinking SEZs From Exports

Syllabus: Indian Economy and Issues relating to mobilization of resources.

In News

- A committee on special economic zones (SEZs) led by **Baba Kalyani** has suggested delinking the enclaves from exports and allowing payments to be made in rupee when they deal with areas outside the zone.
- The draft comes in the wake of India's export-linked incentive schemes including SEZs being disputed by the US in the World Trade Organization (WTO). Exports from SEZs *grew 15% to 5.52 lakh crore* in 2017-18.

Suggestions Of The Committee

- **Reorientation of strategy:** The committee said that the SEZ Act of 2005 focused on promoting trade competitiveness, but it needs to be shifted to manufacturing competitiveness in the current environment.
- **Aligning the policy framework:** It also recommended for aligning the policy framework to avoid competition among similar schemes of industrial parks, export-oriented units, SEZ, national investment and manufacturing zones, and sectoral parks and provide ease of doing business to developers and tenants.
- **Transformation of SEZ:** The panel wants SEZs to be converted into employment and economic enclaves (3Es) with efficient transport infrastructure, uninterrupted water and power supply. The Committee also said for the manufacturing SEZs that 3Es will move away from incentive linkages from exports and hence the condition of net foreign exchange (NFE) will not be required. For service SEZs, it has proposed allowing supplies to domestic market in rupees. The government has also recently amended SEZ rules to exclude income from supplies made to area outside the zone called domestic tariff area from NFE.
- **Enablers for SEZ:** The committee set up in June 2018, has talked of enablers for the SEZs based on job creation, investment committed, inclusivity, value addition and technology differentiation, which are delinked from export performance. It has suggested that States and the Centre together work on an incentive package for such enablers.
- **Preparing a sunrise list:** In line with WTO norms and goods and services tax, the group has suggested the government to prepare a sunrise list for focused diversification such as engineering and design, biotech and healthcare services.
- **Other suggestions:** The committee has advocated simpler entry and exit processes using time-bound online approval and dispute resolution through robust arbitration and commercial courts. It has sought infrastructure status to 3E projects to make cheaper finance available to them.

India Attracted USD 22 Billion Of FDI Flows In First Half Of 2018

Syllabus: Indian Economy and Issues relating to mobilization of resources.

In News

- **Introduction:** As per the UN Conference on Trade and Development (UNCTAD) in its 'Investment Trends Monitor' report that in South Asia, India attracted USD 22 billion of Foreign direct investment (FDI) flows, contributing to the sub region's 13 per cent rise in FDI in the first half of the year 2018.
- **Top 10 economies:** However, as per the report with the USD 22 billion FDI, India just about managed to make it to the top 10 host economies receiving the most FDI during the period.

- **World wide ranks:** As per the report **China was the largest recipient** of FDI, attracting an estimated **USD 70 billion** in inflows in the first half of the year 2018, followed by the UK with USD 65.5 billion, the US with USD 46.5 billion, The Netherlands at USD 44.8 billion, Australia with USD 36.1 billion, Singapore got USD 34.7 billion and Brazil received USD 25.5 billion.
- **Overall fall in global GDP:** Global FDI fell by 41 per cent in the first half of 2018, to an estimated USD 470 billion from USD 794 billion in the same period of 2017, mainly due to large repatriations by the US parent companies of accumulated foreign earnings from their affiliates abroad following tax reforms. Thus, the decline in global FDI is mainly owing to recent tax reforms implemented by US President Donald Trump's administration that led to big firms in the US to bring home earnings from abroad principally from Western European countries.
- **FDI fell mainly in developed countries:** The report noted that while the fall in FDI had happened mainly in richer nations, including Ireland (down USD 81 billion) and Switzerland (down USD 77 billion), developing economies saw FDI flows declining only slightly in the first half of the year by four per cent to USD 310 billion compared with 2017.

Global Skills Park

Syllabus: Indian Economy and Issues relating to employment.

In News

- India and **Asian Development Bank (ADB)** have signed a \$150 million loan agreement to establish the country's first multi-skills park in **Bhopal** to create a more skilled workforce.
- It will engage international Technical and Vocational Education and Training (TVET) partners to support advanced training who will bring global best practices in TVET management, training infrastructure, industry cooperation and quality assurance.
- It will have training facilities focusing on skills for manufacturing, service and advanced agricultural jobs, benefitting about 20,000 trainees and trainers.
- The campus will consist of core Advanced Training Institutes including the Center for Occupational Skills Acquisition and the Center for Advanced Agricultural Training as well as other support services focusing on entrepreneurship, training of trainers and skill-related research.
- Further, the project will also help in modernizing 10 industrial training institutes across the state by renovating training infrastructure and upgrading skills courses to align with industry and market needs.
- It will improve the quality of TVET programs and will help impart advanced job-ready skills training of international standards.

Task Force For Closing Skills Gap

Syllabus: Indian Economy and Issues relating to employment.

In News

- A task force for **Closing the Skills Gap in India** was launched recently in collaboration with the **World Economic Forum** to develop an action plan to address skills gaps in India and make the country's workforce ready for jobs of the future.
- According to the Future of Jobs report, by 2022 over half of workers in India will require re-skilling to meet the talent demands of the future.

- The task force will bring together leaders from business, Government, civil society, and the education & training sectors to accelerate the future-proofing of education and training systems in the country.
- The project will serve as a platform to focus fragmented actions within one overarching mission to address future-oriented skills development, while at the same time supporting constructive public-private collaboration on urgent and fundamental reform of education systems and labour policies.
- The goal is to convene the top 50 to 100 companies in the country to develop an action plan and objectives to address skills gaps. One of its first mandates will be to define targets for re-skilling and up-skilling in the adult workforce.
- With more than half of the population in the working age, the initiative will help broaden the opportunity horizon for re-skilled talent, while accelerating competitiveness for Indian companies and will be critical to sustaining inclusive growth and development in India.

Closing The Skills Gap

- India is the second in a planned network of ten leading economies after South Africa to establish country-level Closing the Skills Gap task forces in collaboration with the WEF.
- This initiative forms part of the WEF's Centre for the New Economy and Society. The centre aims to build dynamic and inclusive economies and systems in an era of accelerated technological and political change, providing leaders with a platform to understand and anticipate emerging economic and social trends and to adapt to the rapidly evolving ecosystem.

Atal Innovation Mission

Syllabus: Indian Economy and Issues relating to employment.

In News

- An MoU between NITI Aayog's Atal Innovation Mission and Russian Federation's SIRIUS Educational Foundation has been signed to promote innovative cooperation between students of India and Russia.
- The MoU will provide a platform for joint scientific and entrepreneurial efforts by the youth of the two nations.
- It aims to remove cultural and language barriers between students of Russia and India, share the best practices in the promotion of educational, scientific, innovative achievements, search and develop talented youth of both countries fostering a knowledge driven innovation ecosystem in both the countries.
- Russians have an algorithmic mind and have excelled in mathematics, cognitive science, Artificial Intelligence, robotics and blockchain among other sectors of the modern age innovation that can benefit India.
- International collaboration will broaden Indian students' minds, deepen curiosities, and sharpen their intellect.

Atal Innovation Mission

- Atal Innovation Mission (AIM) is NITI Aayog's flagship initiative to promote a culture of innovation and entrepreneurship in India through various initiatives at school, university and industry levels.
- AIM also serves as a platform for promotion of world-class Innovation Hubs, Grand Challenges, Start-up businesses and other self-employment activities in India, leveraging state of the art, advanced and affordable emerging technologies.

Proposed Changes in Companies Act

Syllabus: Changes in industrial policy & their effects on industrial growth.

In News

The government is likely to promulgate an ordinance to make changes to the Companies Act with an aim to promote ease of doing business, ensure better corporate compliance and expedite insolvency proceedings.

Proposed Changes

- **Overall proposed changes:** The Ministry of Corporate Affairs is actively considering the changes, which include fast tracking mergers and acquisitions, doubling the penalty for repeat offences *etc.*
- **Decentralization of power:** The proposal is also to decentralize power to Regional Directors by referring routine matters such as conversions to privately held from publicly held companies to Regional Directors. That will help speed up the resolution of bank's bad loans as the tribunals are central to the Insolvency and Bankruptcy Code (IBC) process.
- **Unclogging the courts:** The thrust of the changes is to set up an in-house e-adjudication mechanism to deal with minor offences, which will free up the already overburdened NCLT and Special courts. Thus, the changes may include easing of various penal provisions in the Act and introduction of measures to unclog National Company Law Tribunal (NCLT) and Special Courts.
- **Remuneration of Independent Director:** The maximum remuneration of an Independent Director from a company is proposed to be raised to *up to 25% of his total income*. The current law says pecuniary relationship should not exceed *10% of his income*. This includes sitting fee and commission. Even this remuneration was allowed in June 2018 through a change in the provisions under **Section 149** of the Act to enhance availability of Independent Directors. Under the earlier rules, there was a blanket ban on pecuniary relationship, other than sitting fee and commission, between a company and its independent directors to ensure complete independence.
- **Section 8 Companies:** The government is also looking at disallowing Section 8 companies to convert into commercial companies, which is presently allowed. Section 8 of the Act allows formulation of companies for promoting commerce, art, science, sports, education, research, social welfare, religion, charity, protection of environment or any such other object, provided the profits, if any, or other income is applied for promoting only the objectives of the company and no dividend is paid to its members. Thus, in view of the fact that Section 8 companies enjoy several exemptions and benefits not only under the Companies Act but also under other laws, such companies should not be allowed to convert into a commercial company.
- **Tackling shell companies:** There is no specific definition of a shell company under the Company Law. However, such companies are formed to launder money. Keeping this in mind, the committee has recommended re-introduction of declaration of commencement of business provision.
- **Reduction of time limit for charges:** It suggested a reduction in the time limit for filing documents related to creation, modification and satisfaction of charges and stringent penal provisions for non-reporting.
- **Investor Education and Protection Fund:** Once a company obtains restrictions under **Section 90(7)** relating to significant beneficial ownership, in respect of shares whose ownership remains undetermined, such shares should be transferred to the Investor Education and Protection Fund, if the rightful owner does not claim ownership within a year.

Analysis of UDAY Scheme

Syllabus: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

In News

- Non-performing assets (NPAs) among power-generating companies are mounting. There is a shortage of coal. Plant load factor (PLF) is down to 58%. Distribution companies (discoms) are in a bad shape and new power purchase agreements (PPAs) are few and far between.
- Launched in 2015, Ujwal Discom Assurance Yojana (UDAY) was to provide much-needed relief, which it did temporarily. States were to take over **75% of discom debts** as on September 30, 2015. This was to ease their fiscal burden and improve balance sheets of Discoms.

Analysis Of UDAY Scheme

- **Many issues remain unaddressed:** The focus of UDAY was primarily on fiscal restructuring. It was indeed a necessary condition, but not a sufficient one. The critical elements of UDAY, like reduction of aggregate technical and commercial (AT&C) losses, elimination of the average cost of supply (ACS), average revenue realized (ARR) gap, feeder metering and distribution transformer (DT) metering, remain unaddressed.
- **No focus on AT&C:** Most of the discoms failed to carry out mandates relating to the reduction of AT&C losses, elimination of ACS-ACR gap, etc. Ironically, of all the UDAY states, 13 have actually reported higher AT&C losses as compared to the previous year.
- **Debt burden of states increased:** The shift of debt burden from Discoms to State government raised the debt burden of the states quite substantially. The **Economic Survey** revealed that due to this state's gross fiscal deficit to GDP ratio got increased by 0.7%.
- **No extensive interaction with state:** Monitoring systems were put in place, but the facilitating mechanism for the states was not set up. Moreover, no extensive field visits or intensive interaction with the stakeholders were adopted. Little effort was made to understand states problems.

Way Forward

- Separate feeder lines, auditing, strong action against defaulters and pricing are some of the issues that will need to be addressed.
- The plans can't be made or monitored in Delhi. Intensive discussions will have to be held with all stakeholders to get their 'buy-ins'. This is critical for the success of any plan.

Youth Road Safety Learners Licence Programme

Syllabus: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

In News

- Minister of State for Road Transport and Highways recently launched the Youth Road Safety Learners Licence programme in New Delhi.
- The programme is a PPP initiative to be **run in collaboration with Diageo India and the Institute of Road Traffic Education (IRTE)**, and attempts to bring a formal and structured training program for young, first-time drivers as they apply for learner's license.
- In the first year, the programme will cover 20 universities with a total of 400 programme across the country.

- Road safety is of prime importance as recent times have seen an alarming rise in road fatalities especially among the youth. **India accounts for 12.5 per cent (over 1.45 lakh fatalities a year) of global road accidents**, with one road accident occurring every four minutes.
- 72 per cent victims involved in such road mishaps are between the age groups of 15-44 years.
- Rash driving, drunken driving, lack of adequate safety measures like not wearing helmets are some of the major factors resulting in high road accidents.
- The programme is a step towards addressing this grave issue by improving road safety awareness amongst young adults by **inculcating behavioural change and creating awareness** about responsible driving habits.
- It is an **immersive and interactive module** led by senior faculty members of IRTE covering varied aspects of responsible driving including defensive driving, ill effects of driving under the influence of alcohol, speeding and wearing of helmets spread over two days.
- The programme will also help the government achieve its target of reducing road accidents by 50 percent by 2020.

Domestic Gas Exchange In Offing

Syllabus: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

In News

- The Oil Ministry has prepared a proposal to allow trading of all gas produced in the country on the proposed exchange.
- The exchange will be a parallel platform for local price discovery of domestic gas. So, instead of having a formula based on prices from different parts of the world, India will have its own price discovery. All producers would get the option to use this platform although no one would be forced to use this.
- At present, a four year old government set formula, which takes prices from **four key global gas markets** to decide local rates **every six months**, applies to most gas produced in the country. Producers from fields located in deep sea and other difficult areas have marketing freedom but are bound by a government determined price ceiling based on the rates of imported alternative fuels.
- The formula price currently at \$3.36 per million metric British thermal unit (mmBtu) has often been criticized by producers for being too low to attract investment in the upstream sector.

Impact

- **Local determination of market price:** This move will help discover the market price for gas locally and render current gas price formula and ceiling redundant.
- **More investment but challenges remain:** Ensuring market rates for gas is one of the way to attract more investment in the sector. But it is going to be a tough call for the government since it also has other interests to balance such as making available cheaper fertilizer or energy to people.

National Digital Communications Policy 2018

Syllabus: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

In News

The Union Cabinet approved the new Telecom Policy *i.e.* The National Digital Communications Policy 2018, which aims to create **four million jobs, draw \$100 billion of investments** into the telecom

industry by 2022, **boost sectoral contribution to 8% of GDP** from 6% in 2017, besides backing the principles of **net neutrality**.

Features Of The New Policy

- **Need for the policy:** The government felt the need to come up with a new telecom policy that is both customer-focused and application-driven, given the pace of global transformation in the sector, particularly, in emerging technologies such as 5G, IoT (internet of things) and M2M (machine to machine) communications.
- **Change of Name:** The telecom department's (DoT) Telecom Commission will from now be called **Digital Communication Commission** and Telecom Regulatory Authority of India will be called **Digital Communications Regulatory Authority of India**.
- **Thrust of the policy:** The new policy would give thrust to the financially stressed industry and ensure it is not merely treated as a revenue generator but one that can provide immense socio-economic impetus to the economy. Under the policy, the government plans to optimally price spectrum, review levies such as licence fees and SUC as well as M&A rules to ease exits while also taking a fresh look at spectrum sharing, leasing and trading guidelines, as part of its approach that spectrum is a key natural resource for public benefit.
- **Essential public utility:** The policy also aims to recognize of telecom services and infrastructure as an essential public utility. This would aid proliferation of such services and facilitate low cost financing.
- **R&D and IPR:** The policy aims at expanding the IoT ecosystem to **five billion connected devices**, create globally recognised IPRs in India and create a fund for R&D in new technologies.
- **Using Big Data:** It also pitches for leveraging Artificial Intelligence and Big Data to enhance the quality of services offered, spectrum management and network security while also establishing India as a global hub for cloud computing.
- **Universal broadband:** Under NDCP, the government plans to ensure universal broadband connectivity at 50 Mbps to every citizen, provide 1 Gbps connectivity to all gram panchayats by 2020 and 10 Gbps by 2022 and ensure connectivity to all uncovered areas.
- It calls for establishment of a **National Digital Grid** by creating a **National Fibre Authority** to facilitate development of open access nextgen networks and creating a collaborative mechanism between the Centre, states and local bodies for common rights of way (RoW), standardization of costs and timelines.
- **Other aims:** The new policy aims to secure India's communications infrastructure and establish a comprehensive data protection regime for digital communications that safeguards privacy, autonomy and choice of individuals.



Draft National Electronics Policy, 2018

Syllabus: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

In News

The government has released the draft of the National Electronics Policy 2018, aiming for **a turnover of \$400 billion in domestic electronics manufacturing by 2025**, along with promoting ease of doing business for the entire electronic system design and manufacturing or ESDM sector, and encouraging industry led research and development and innovation in all sub-sectors of electronics.

Features Of Draft Policy

- **Policy targets:** The policy targets production of **one billion mobile handsets by 2025**, valued at \$190 billion (about Rs. 13 lakh crore) including export of 600 million mobile handsets valued at \$110 billion (about Rs. 7 lakh crore).
- **MeitY to coordinate:** The Ministry of electronics and information technology (MeitY) will coordinate with the concerned ministries/departments to provide incentives to industry for rapid and robust expansion of electronics hardware manufacturing within the country.
- **Incentives:** Some of the measures proposed in the draft include promotion of manufacturing of electronic goods covered under the **Information Technology Agreement (ITA-1)** of the World Trade Organization and provision of suitable direct tax benefits, including investment-linked deduction under **Section 35AD** of the Income Tax Act for electronics manufacturing sector, for setting up of a new manufacturing unit or expansion of an existing unit.
- **Replacing M-SIPS:** It also proposed replacing the **M-SIPS (Modified Special Incentive Package Scheme)** with schemes that are easier to implement such as interest subsidy and credit default guarantee *etc* in order to encourage new units and expansion of existing units in electronics manufacturing sector. M-SIPS was launched in 2012 that provided for capital subsidy of 25 % for Electronics Industry located in non-SEZ area and 20 % for those in SEZ areas.
- **Promoting startups:** The policy aims to also push the startup ecosystem in emerging technology areas such as 5G, Internet of Things, artificial intelligence and machine learning, and their applications in areas such as defence, agriculture, health, smart cities and automation. Being export-led, it is also targeting to develop core competencies in all the subsectors of electronics, including electronic components and semiconductors, telecommunication equipment, medical electronics, defence electronics, automotive electronics, industrial electronics, strategic electronics *etc.* and fabless chip design.
- **Skilled manpower:** One of the 14 objectives of the policy is to provide support for significantly enhancing availability of skilled manpower in the electronics system design and manufacturing industry.
- **Modification in EMC scheme:** The draft policy also pitches for support for infrastructure development through formulation of a new scheme or suitable modifications in the existing Electronics Manufacturing Clusters (EMC) Scheme for supporting both Greenfield and brownfield manufacturing clusters. EMC scheme was also launched in 2012 to provide quality infrastructure within a cluster. Under the scheme, 50% of the project cost for Greenfield EMC and 75% for brownfield EMC is given by the Ministry as grant.
- **Creation of EMCs:** The Policy has also proposed creation of **200 EMCs** by 2020 that will house entire ecosystem for development and production of specific category of products.

Shifting From Agricultural Subsidy To Investments

Syllabus: Issues related to direct and indirect farm subsidies and minimum support prices

In News

- Public capital formation in agriculture has been declining from 3.9 % of agri-GDP in 1980-81 to 2.2 % in 2014-15 and recovered to 2.6 % in 2016-17, while input subsidies on fertilizers, water, power, crop insurance and agri-credit have risen from 2.8 % to 8 % of agricultural GDP during the same period.
- Most countries support agriculture to ensure food security and/or enhance farmer’s income. India is no exception. The main policy instruments to support farmers in India include subsidized fertilizers, power, agri-credit and crop insurance on the input side and minimum support prices for major crops on the output front.

Agricultural Subsidies vis-à-vis Investments

- Returns on subsidies are low:** The marginal returns on subsidies are far below those from investments. The results show that expenditure incurred on Agri-R&E (Research and Education), roads or education are **5-10 times more powerful** in alleviating poverty or increasing agri-GDP than a similar expenditure made on input subsidies.
- Subsidies leading to inefficiencies:** It may be noted that excessive input subsidies have caused large-scale inefficiencies in the agriculture system. For example, fertilizer subsidies, especially on urea, have led to the imbalanced use of soil nutrients. The subsidy on irrigation water has resulted in an inefficient use of scarce water. Highly subsidized power has led to over-exploitation of groundwater. Subsidy on the interest rates on crop loans has diverted substantial amounts of agri-credit to non-agricultural use.

POVERTY AND AGRI-GROWTH EFFECTS OF GOVT INVESTMENTS AND SUBSIDIES

	Number of people brought out of poverty per million ₹ spent		Returns in GDPA per ₹ spent	
		Rank		Rank
Agricultural R&E	328	1	112	1
Roads	130	2	1.10	2
Education	42	3	0.97	3
Fertiliser subsidy	26	4	0.88	4
Power subsidy	23	5	0.79	5
Public Irrigation (canal)	10	6	0.31	6
Irrigation subsidy	n.s	7	n.s	7

Way forward

- In the light of all this, the best blend of subsidies and investments must now give more weightage to the latter.
- But at the same time the investment in public irrigation is very expensive, as it involves long lags and the gap between the potential created and potential utilized has increased over time. To give higher returns, this leaky system must be fixed, it should be made more transparent and the gap between potential created and utilized bridged.
- Second*, the present system of delivering subsidies through the pricing policy needs to be shifted to an income policy, which could be well targeted, and leakages minimized on the lines of JAM trinity.
- Third, investments need to be prioritized towards agricultural research and development, roads and education. Interestingly, at the global level, the private sector is leading in agri-R&D. India has a lesson to learn from China in this aspect as well. ChemChina, a PSU, has taken over Syngenta Corporation a leading player in crop protection and seeds for \$43 billion. India can also make similar moves to give its farmers access to the best technologies in the world, which in turn can augment their productivity and incomes and give the nation long-term food security.

Promoting Agricultural Exports**In News**

- **New Agricultural Export Policy** has set an ambitious target of tripling annual agri exports to \$100 billion by 2025. A bigger historic success would be the new policy's ability to revolutionize the participation of 98 million smallholder farmers, especially from the poorest states, who have the biggest stake in the business.
- Though agriculture production has transformed under the *Green, Pink, Yellow, Blue and White Revolutions*, the economic disparities are wide. In 2015-16, small and marginal farmers (with less than 2 hectares of land) earned Rs. 29,132 annually from cultivation, while large farmers (with more than 5 hectares of land) earned 17 times more, according to the National Sample Survey Office's (NSSO) 70th Round data. Export could be the fastest way to reduce these disparities.

Focus Areas In New Agricultural Policy

The new export policy should, therefore, impact on three fronts.

- *One*, prioritize the digital infrastructure necessary for connecting smallholder farmers to exporters in the least developed states.
- *Second*, the policy should rope in state governments for accelerating technical and business expertise among small and medium enterprise (SME) trader exporters — 'the missing middle' through industry bodies and addressing the high cost of finance. SMEs in food and agriculture sector will grow annually only by 2% till 2020, compared to 20% in electronics, according to a 2014 KPMG study.
- *Finally*, the policy must encourage export from the **100 aspirational districts** identified by the NITI Aayog. This can be accomplished through public-private partnership (PPP) and incentives linked to business models that make it easier for smallholders and SMEs to become suppliers without raising transaction costs. Thus, they can become stronger negotiators through skills development, collective bargaining and access to market information and financial services. Value chain collaboration, transparency in pricing mechanisms and risk sharing should also be promoted.
- Moreover, there is also need for Policy reform in the form of contract farming, market yard sales, farmer collectives, microfinance, commercial arbitration, land lease *etc.* to improve ease of doing agri-business.

Draft Mariculture Policy

Syllabus: Economics of animal-rearing.

In News

The Draft Policy was formulated by an expert committee formed by the National Fisheries Development Board (NFDB) with **A. Gopalakrishnan**, Director of Central Marine Fisheries Research Institute (CMFRI) as Chairman.

Features

- **Aim and purpose:** The policy aims to enhance mariculture production in the country and increase income and employment opportunities in a sustainable way, in addition to promoting entrepreneurship by facilitating technical and financial inputs.
- **Mariculture zones:** A Draft National policy on mariculture has mooted mariculture zones by demarcating special areas in the sea for activities such as cage farming, bivalve farming, pen

culture, seaweed culture, hatcheries and nurseries based on scientific criteria. Sea areas identified in this manner will be designated as mariculture technology parks by the respective states.

- **Offshore Technology Park:** In a bid to support fish breeding, culture, packaging and trade, the policy proposes encouraging the establishment of offshore technology parks and coastal embankment systems.
- **Farming of GM:** The policy allows farming exotic and genetically modified (GM) species in closed mariculture systems after stringent risk assessment and monitoring.
- **Use of technology:** Satellite remote sensing data and GIS will be used to identify potential zones for mariculture on the basis of scientific evaluation of environmental parameters suitable for various types of farming, avoiding conflict with other users and protecting the livelihoods of local fishing communities.
- **Financial incentives:** The Policy advises the government to formulate financial assistance programmes, including prioritized lending schemes, subsidized credit and investment subsidies, to promote mariculture.

Technology

Oneer

Science and Technology- developments and their applications and effects in everyday life

In News

- **Council of Scientific and Industrial Research, Indian Institute of Toxicology Research (CSIR-IITR)**, Lucknow has developed an innovative technology for Drinking Water Disinfection System with trade name **Oneer**.
- It is useful for continuous treatment of water and eliminates all disease causing pathogens such as virus, bacteria, fungi, protozoa and cyst to provide safe drinking water to domestic and communities with settings as per National and International standards prescribed for potable water.
- According to the World Health Organization, access to safe drinking-water is essential to health, a basic human right and a component of effective policy for health protection.
- Currently, a large proportion of India's rural community is consuming water that does not meet the WHO drinking water quality standards.
- Infection through drinking water results in an increase in morbidity and mortality particularly amongst children and Oneer will provide access to safe and clean drinking water at a cost of just 2 paise / Ltr.
- The smaller unit of Oneer is particularly suitable for homes, street food vendors, and small establishments. And the Community level model is of 450 LPH capacity which can be scaled up to 5000 to 1 lakh L/day and is also maintenance and membrane free.
- The technology will be helpful especially for rural people since it can be solar powered and also this development is in line with the Make in India Mission.

India's First Engine-less train

Syllabus: Indigenization of technology and developing new technology.

In News

- A 16-coach prototype known as **Train 18 or T18, Indian Railways' first engine-less train**, made its inaugural trial run recently.

- Capable of running at a speed of up to 160 kmph, it is being referred to as a successor to the 30-year-old Shatabdi Express.
- The fully air-conditioned semi-high speed train, which will cut travel time by 15 per cent as compared to the Shatabdi, has been **manufactured by the Integral Coach Factory (ICF) in Chennai** and completed in a record 18 months.
- Train 18, a **100 per cent Make in India project**, will cost nearly Rs 100 crore to build the prototype and subsequent production will bring down the cost.
- Driven by a self-propulsion module sans a separate locomotive, the train comes with technical features for enhanced quick acceleration.

AskDisha Chatbot

Syllabus: Science and Technology- developments and their applications and effects in everyday life

In News

- The Indian Railway Catering and Tourism Corporation Limited (IRCTC) has recently launched a chatbot, **Ask Disha**. This Artificial Intelligence (AI) powered chatbot is aimed at **improving the accessibility and customer services** of the passengers.
- IRCTC becomes the **first and only government corporation in India to launch a chat-enabled helpdesk service program**.
- It has been **jointly developed by IRCTC and CoRover Private Limited**, which is a Bengaluru-based startup that develops AI and machine learning based chatbots pertaining to travel and tourism.
- It will support several regional languages, will be voice-enabled and will soon be integrated with the IRCTC Android app.
- The essential features of AskDisha include ability to quickly answer customer queries, ability to multitask, ability to provide round-the-clock customer support, zero waiting time for the query to be answered, and overall an ability to provide customers with a stress-free experience and overall customer satisfaction.
- A chatbot is a conjuncture of chat and robot. It is a computer program based on artificial intelligence which conducts a conversation through text or audio messages. Such programs are often designed to depict exactly how a human would talk or answer as a conversational partner.

Nobel Prize

Syllabus: Science and Technology- developments and their applications and effects in everyday life

In News

- Nobel Prize is awarded annually from a fund bequeathed by the Swedish inventor and industrialist **Alfred Nobel**. The prize is widely regarded as the most prestigious award given for intellectual achievement in the world.
- The prize is awarded for **Physics, Chemistry, Physiology or Medicine, Literature, and Peace**. The first distribution of the prize took place in **1901**. An additional award in **Economic Sciences** was established in 1968 and was first awarded in 1969. Although not technically a Nobel Prize, it is identified with the award.

- The **Royal Swedish Academy of Sciences** confers the prizes for physics, chemistry, and economics.
- The **Karolinska Institute** confers the prize for physiology or medicine and the **Swedish Academy** confers the prize for literature.
- The **Norwegian Nobel Committee** based in Oslo confers the prize for peace.

Nobel in Physiology/Medicine

- The 2018 Nobel Prize in Physiology or Medicine has been jointly awarded to **James P. Allison and Tasuku Honjo**.
- The two immunologists were awarded the Prize for their discovery of **cancer therapy by inhibition of negative immune regulation**.
- By stimulating the inherent ability of our immune system to attack tumor cells, this year's Nobel Laureates have established an entirely new principle for cancer therapy.
- Allison, professor at the University of Texas MD Anderson Cancer Center, worked on a protein known as CTLA-4 and realised that if this could be blocked, a brake would be released, unleashing immune cells to attack tumours.
- Honjo, professor at Kyoto University separately discovered a second protein called PD-1 and found that it too acted as an immune system brake, but with a different mechanism.
- Therapies based on his discovery have proved to be strikingly effective in the fight against cancer

Nobel in Chemistry

- One half of the Nobel Prize in Chemistry 2018 was awarded to Frances H. Arnold “**for the directed evolution of enzymes**” and the other half jointly to George P. Smith and Sir Gregory P. Winter “**for the phage display of peptides and antibodies**.”
- The Laureates have been inspired by the power of evolution and used the same principles -- genetic change and selection -- to develop proteins that solve mankind's chemical problems.
- They have applied the principles of Darwin in test tubes and have used the molecular understanding we have of the evolutionary process and recreated the process in their labs.
- In 1993, Frances H. Arnold conducted the first directed evolution of enzymes, which are proteins that catalyse chemical reactions. Since then, she has refined the methods that are now routinely used to develop new catalysts.
- Her method of creating new proteins with desired properties is being used to **convert renewable resources like sugar cane into biofuels**, and to make more **environmentally friendly chemical substances**, improving everyday products such as laundry and dishwashing detergents to enhance their performance in cold temperatures.
- In 1985, George Smith developed an elegant method known as phage display, where a bacteriophage — a virus that infects bacteria — can be used to evolve new proteins.
- Gregory Winter used the method to evolve antibodies, which are disease-fighting proteins in the blood.
- Pharmaceuticals for rheumatoid arthritis, psoriasis and inflammatory bowel diseases have resulted from their research, as well as anti-bodies that can neutralise toxins, counteract autoimmune diseases and cure metastatic cancer.

- Between them, the two groups of winners have taken humanity's project to create more useful lifeforms to a new level.

Gaganyaan

Syllabus: Awareness in the fields of IT, Space etc

In News

- A MoU was signed between ISRO and the Federal Space Agency of Russia ROSCOSMOS on joint activities in the field of the human spaceflight programme Gaganyaan.
- The Russian side has offered a ride to Indian astronaut to International Space Station (ISS) on board a Soyuz spacecraft for a short training mission in 2022.
- If successful, India would be the fourth nation to send a human in space after the US, Russia and China.

About Gaganyaan

- Gaganyaan is India's maiden human spaceflight programme scheduled for completion by 2022.
- **GSLV Mk-III** launch vehicle, which has the necessary payload capability for this mission, will be used to launch Gaganyaan.
- The mission will aim to send a three-member crew to space for a period of five to seven days. The spacecraft will be placed in a **low earth orbit of 300-400km**.
- For a manned mission, the key distinguishing capabilities would be the **ability to bring the spacecraft back to Earth** after the flight, and to build a spacecraft in which astronauts can live in Earth-like conditions in space.

China's Artificial Moon

Syllabus: Awareness in the fields of IT, Space etc

In News

- China has planned to launch an **artificial moon over the city of Chengdu**, in Sichuan province, by 2020. The objective is to provide an **alternative means of street lighting and save on electricity**.
- As per preliminary reports the artificial moon would be a **mirror orbiting Chengdu at a height of 500 km**. It would **reflect the sun's light at night**, and supplement street lighting in Chengdu, which has a population of 1.6 million.
- The moon would illuminate an area of diameter between 10-80 km. If the illuminated, it would save an estimated 1.2 billion yuan (\$170 million) a year in electricity costs for Chengdu.
- The extraterrestrial source of light will also **help rescue efforts in disaster zones during blackouts**.
- The first man-made moon will launch from Xichang Satellite Launch Center in Sichuan, with two more to follow in 2022 if the first test goes well.
- Though the first launch will be experimental, the 2022 satellites will have great civic and commercial potential.
- China is not the first country to try beaming sunlight back to Earth. In the 1990s, Russian scientists reportedly used giant mirrors to reflect light from space in an experimental **project called Znamya or Banner**.

Apprehensions

- At an altitude as low as 500 km, and considering a diameter small enough to be economically viable, accuracy is key. Missing the angle of reflection by even a few degrees would miss Chengdu by miles.
- In order to light up an area with an error of say 10 km, even if it is missed by one 100th of a degree it will have the light pointing at another place.
- There must be sufficient glow, but if this glow covers a large area, it **could potentially affect the daily cycle of animals and plants**, and even affect the human circadian system — the body clock.
- The moon would significantly increase the **night-time brightness** of an already light-polluted city, creating problems for Chengdu's residents who are **unable to screen out** the unwanted light.

Hyperion Proto-supercluster

Awareness in the field of space

In News

- Astronomers using the VIMOS instrument of **European Southern Observatory's Very Large Telescope** have spotted a gigantic galaxy proto-supercluster in the early Universe.
- Nicknamed Hyperion, the newly-discovered proto-supercluster is the **largest and most massive structure to be found at such a remote time and distance — merely 2 billion years after the Big Bang**.
- The enormous mass of the proto-supercluster is calculated to be **more than one million billion times that of the Sun**.
- Hyperion sits in the constellation Sextans, and is said to have a complex structure that differentiates it from nearby superclusters of similar size. According to researchers, It is home to at least 7 high-density regions connected by filaments of galaxies.
- This is first time that such a large structure has been identified at such a high redshift, just over 2 billion years after the Big Bang. Normally these kinds of structures are known at lower redshifts, which means when the Universe has had much more time to evolve and construct such huge things.
- Superclusters closer to Earth tend to a much more concentrated distribution of mass with clear structural features but in Hyperion, the mass is distributed much more uniformly in a series of connected blobs, populated by loose associations of galaxies.
- This contrast is most likely due to the fact that nearby superclusters have had billions of years for gravity to gather matter together into denser regions — a process that has been acting for far less time in the much younger Hyperion.
- Understanding Hyperion and how it compares to similar recent structures can **give insights into how the Universe developed in the past and will evolve into the future**, and gives the opportunity to challenge some models of supercluster formation. Unearthing this cosmic titan helps uncover the history of these large-scale structures.

Acinetobacter Junii

Syllabus: Awareness in the fields of biotech

In News

- Researchers from the **University of Delhi and Indian Institute of Technology (BHU)**, Varanasi, have successfully degraded toluene into less-toxic byproducts by using a bacteria - **Acinetobacter Junii** isolated from soil and effluents near an oil refinery.
- Toluene is one of the petrochemical wastes that get released without treatment from industries such as refineries, paint, textile, paper and rubber.
- It has been reported to cause serious health problems to aquatic life, and studies point that it has genotoxic and carcinogenic effects on human beings.
- Another interesting find was that when exposed to toluene, these bacteria changed their morphology to escape toxicity. Electron microscopy studies revealed that the cylindrical cells transformed into an ovoid or spherical structure.
- The researchers also examined the pathway by which the bacteria were doing the degradation and found it to be general **aerobic biodegradation** pathway unlike most waste degradation studies that use bacteria that grow in an anaerobic environment.
- The researchers also tested the bacterial strain for the degradation of benzene, phenol, and xylene and they showed effective results towards degradation of these compounds — both individual compounds and their mixtures.
- In laboratory conditions, the bacteria were able to degrade these petrochemical wastes in both soil and water samples. However, more studies are needed to design industrial-scale bioreactors for taking up large-scale degradation of petrochemical waste.

DigiYatra

Syllabus: Awareness in the fields of IT, Space etc

In News

- The Ministry of Civil Aviation has come up with a **DigiYatra platform** to create a digitally unified experience for air travellers.
- It aims to bring together entire industry to develop a digital ecosystem that will deliver customers a seamless, consistent and paperless service experience at every touch point of their journey.
- The platform will be built on 4 key pillars, **Connected Passengers, Connected Airports, Connected Flying and Connected Systems** which will make it possible over a period of time for passengers to:
 - Conveniently navigate through the airport using digital guidance systems, interactive kiosks and augmented reality apps
 - Receive relevant information pertaining to various facilities, protocols, airline timings, queue lengths at airports.
 - Get real time notifications about congestion and delays to have greater visibility on the next step of journey
 - Submit grievances, share experiences and provide feedback.

India International Science Festival

Syllabus: Indigenization of technology and developing new technology.

In News

- The 4th edition of India International Science Festival, jointly organised by **Ministry of Science and Technology, Ministry of Earth Sciences, and Vijnana Bharati**, was held recently in **Lucknow**.
- Stakeholders assembled to collectively work towards “**Vigyan se Vikas**”- contributing to the **Making of a New India**.
- The 1st IISF was held at Indian Institute of Technology (IIT) New Delhi in 2015.
- IISF is the biggest platform in the country to bring together students, researchers, innovators, artists and general public to celebrate India’s achievements in science and technology.
- It is a medium to encourage the young minds towards the field of science and to promote the networking of stakeholders working towards the propagation of science.
- The festival’s **focal theme** being **Science for Transformation** had many special events.
- The Global Indian Science & Technology Stakeholders Meet (GIST), Industry Academia Meet and Science & Technology for Harnessing Innovations (SATHI) - A National startup entrepreneurship summit and **Student Science Village** being some of the important events.
- The *Science Village program* was linked with the *Pradhan Mantri Sansad Adarsh Gram Yojana* to reach out to the rural masses and propagate science and for seeking scientific solutions to the diverse challenges facing our society, particularly rural India.
- The programme also aspired to develop entrepreneurship and explore new vistas of opportunities in the field of science and technology for women.
- **Nav Bharat Nirman/Creation of new India** a concept focused on the innovative methods and solutions to overcome India’s historical and social disadvantages along with problems created in the 21st century.

Environment and Biodiversity**Indian Plant Species In IUCN Threat Categories****In News**

Recently, scientists identified the threat status of 59 Indian plant species based on criteria used by **the International Union for Conservation of Nature (IUCN)**.

Why Is It Important

- Quantifying threat levels of species can be **crucial for their conservation**. For instance, funding agencies often consider the threat status of species provided in IUCN's Red List (a catalogue of the world's threatened species), to sponsor research and conservation activities to save them.
- Around **2,700 plant species** in India are at risk but very few have been assessed by the IUCN.
- To bridge this gap, experts from several institutes **prioritized 59 plant species that are at risk of “elimination” if the threat levels they face are not assessed** soon. They assigned each species a threat status based on IUCN criteria.

Different Methods Of Classification

- This included the extent and area of each plant's geographical range, which revealed that 10 species are critically endangered, 18 endangered, six vulnerable, five near threatened and one species each are data deficient and least concern.
- The threat levels of some plants have been altered as a result; for instance the palm *Bentinckia nicobarica* is currently listed as **endangered**; however the new study suggests it is critically endangered based on its distributional attributes (the palm is reported only from the Great Nicobar Island).
- Based on population sizes and numbers of mature individuals remaining in the wild (using field surveys that also revealed that habitat loss was a huge factor affecting many declining plant populations), the team classified 10 species as critically endangered, three as endangered and five as vulnerable. **Germination tests in the laboratory also suggest that factors such as low seed viability could have caused declines in the wild too.**
- The study initiated in 2012 to assign threat status to select plants, is published in *Current Science*. The study also generated data on 38 species that have never been assessed by the IUCN.

The International Union for Conservation of Nature (IUCN) is a membership Union uniquely composed of both government and civil society organisations. It provides public, private and non-governmental organisations with the knowledge and tools that enable human progress, economic development and nature conservation to take place together. Created in 1948, IUCN has evolved into the world's largest and most diverse environmental network. IUCN is the global authority on the status of the natural world and the measures needed to safeguard it.

Delhi's Air Quality Set To Worsen

In News

Air quality in the national capital region is likely to deteriorate as **burning of paddy stubble** by farmers in Punjab and Haryana intensifies.

Current Scenario

- According to the environment ministry, fire-related incidents are 75% and 40% lower in Punjab and Haryana, respectively, so far but that may not be a reason to cheer.
- The paddy grown in summer in Punjab was sown late this year by a week, while both Punjab and Haryana witnessed unseasonal rains in end-September, which has delayed harvesting by about 10 days because of a rise in crop moisture levels. **Air quality is likely to worsen as more farmers begin harvesting.**
- The situation is however likely to be better than last year when a dust storm, **stubble burning** and **Diwali celebrations** took place around 19 October. This year, Diwali falls on 7 November.

An AQI between 0-50 is considered 'good', 51-100 'satisfactory', 101-200 'moderate', 201-300 'poor', 301-400 'very poor', and 401-500 'severe'. According to the **System of Air Quality and Weather Forecasting and Research (SAFAR)**, air quality is set to worsen, as levels of two main pollutants, PM 2.5 and PM 10, is likely to increase in the coming days.

Major Cause: Stubble Burning

- Farmers in Punjab and Haryana usually burn the paddy straw after combine harvesters leave a 7-8 inch stubble on the field following harvest, and farmers have to prepare the field for planting of wheat crop in two to three weeks.

- As the straw cannot be fed to cattle, the way out is on-field management of stubble by using machines such as straw management system, mulchers, rotavators and happy seeders.
- According to the agriculture ministry, 23 mt of paddy straw is burnt in Punjab, Haryana and UP every year, shooting up carbon dioxide levels in the air by 70%, triggering respiratory problems.

Government Steps

- The central and state **governments have announced 50-80% subsidy on purchase of these machineries but have seen limited success.** The machinery is very expensive despite the subsidy and manufacturers raised prices after these subsidies were announced.
- Farmer in these states are demanding a direct financial assistance of ₹200 per quintal of paddy harvested to account for straw management expenses.

The best way forward would be to provide the machines on a lease basis by government through appropriate farming community bodies.

Rafting Expedition “Mission Gange”

In News

- National Mission for Clean Ganga (NMCG) has partnered with Tata Steel Adventure Foundation (TSAF) to launch a month-long rafting expedition of a team of 40 members which will be led by **the first Indian woman to scale Mount Everest Ms. Bachendri Pal.**
- The expedition encompasses 8 major towns including Bijnor, Farrukhabad, Kanpur, Allahabad, Varanasi and Buxar. It will conclude in Patna in Bihar on 30th October.
- During the month-long expedition, the team will stop at all major locations and carry out cleaning drives in coordination with NMCG stakeholders like *Ganga Vichar Manch, Ganga Praharis, District Ganga Committees, local voluntary organizations and people from all walks of life.*
- Awareness campaigns will be conducted in schools to sensitize students towards Ganga cleaning. Events such as Ganga Chaupal will be conducted along the Ganga to create conversations between stakeholders.”

What Is Killing Gujarat’s Lions

In News

- A 26-member strong pride of the endangered Asiatic lions in Gujarat has almost been wiped out with 23 lions dying in the last 20 days and the three surviving members of the pride battling for life.
- 184 Lions have died in Gujarat since 2006. Recently the lions succumbed to the deadly infection of canine distemper virus (CDV) and tick-borne babesiosis.
- The Gir sanctuary in Gujarat is the last habitat of the Asiatic lion of which 500-600 survive.
- According to the State Forest Department, of the 23 deaths, four lions died of CDV, and 17 were killed by a tick-borne infection. The cause of death of two lions is yet to be ascertained.

What Is Canine Distemper Disease

Canine Distemper is a virus that affects a Dog’s gastrointestinal, respiratory and central nervous systems as well as the conjunctival membranes of the eye.

What Is Babesiosis

VAJIRAM & RAVI

Caused by Babesia, an apicomplexan parasite that infects red blood cells, transmitted by ticks. Symptoms include dullness, weakness, lethargy, inappetence, mild paresis of hind quarters.

Earlier Warnings

- Two institutes , CADRAD and and IVRI in 2011 reported a lion death in Gir due to highly infectious PPRV (Peste des Petits Ruminant Virus).
- CADRAD suggested active viral surveillance in neighbouring Gir villages for PPRV which is same type as CDV.
- In 1994, 1,000 lions at Tanzania's Serengeti National Park-a third of the lion population there - were wiped out by CDV. The virus had apparently spread through dogs

Actin Plan

1. Vaccinate Dogs in the vicinity against CDV , like in Serengeti where close to 30,000 dogs were vaccinated.
2. Tick Control measures among domesticated bovine animals, goats and sheep in Gir's vicinity.
3. A 270-member force of the Gujarat Forest Department, divided into 64 teams, has fanned out to detect diseases in the Asiatic lions of Gir. The teams will observe lions and if found ill, they will be given medical treatment.

The Relocation Debate

- The current crisis has revived the debate over the relocation of the exploding lion population at Gir.
- The Gujarat government has been resisting their relocation to the Kuno Wildlife Sanctuary, also known as Palpur-Kuno, in Madhya Pradesh -- as ordered by the Supreme Court way back in 2013.
- It is taking cover behind the plea that lions would be at risk in Kuno as the sanctuary is not adhering to guidelines laid down by the International Union for Conservation of Nature (IUCN).
- Top wildlife experts, however, feel that relocating a few prides to Kuno sanctuary is critical for the long-term protection of the Asiatic lion.
- The sanctuary area of 345 sq. km is well stocked with prey species and could sustain over 50 lions -- perhaps more if the buffer area is taken into consideration.

Why Gujarat Says No

- Despite the latest controversy, Gujarat has declared that the state is well-equipped to handle its lions.
- According to state wildlife officials, the 260-odd lions that migrated from Gir to the bordering areas of Bhavnagar, Amreli and Gir-Somnath have moved to forested areas on the Gir periphery. These include lion-friendly terrains like the Mitiyala Wildlife Sanctuary in Bhavnagar and Pania Wildlife Sanctuary in Amreli. There is no man animal conflict.
- Further, the government is of the opinion that Madhya Pradesh is looking at the issue from just a tourism point of view.
- Some officials in Gujarat are of the view that the lions that succumbed to CDV and BP had strayed out to the sparse jungles or non-forest areas and preyed on infected cattle and domestic animals. They prefer the creation of a suitable habitat with prey base in the areas the lions have moved to rather than a translocation to Kuno.

There is a census of lions in Gir every five years. The last census at Gir (2015) put the lion population at 523, of which 304 resided within the sanctuary and national park while the remaining number were permanently established outside Gir, spread over another 1,500 sq. km that included three smaller

sanctuaries and an expanse of non-jungle area along the coastal belt. Since the last census, the lion population is estimated to have increased to nearly 575.

Windmills Not So Green For Wildlife

In News

- Researchers find birds, animals moving from turbine locations to forest fringes.
- Windmills are seen as a source of green energy, but researchers say they pose a threat to wildlife in forests through collisions and noise.
- The impact of the giant structures in Karnataka was studied by researchers from **Salim Ali Centre for Ornithology and Natural History (SACON)** during a two-year project. They found that windmills killed birds and bats in collisions, and that birds and mammals also moved away due to the noise.
- The noise levels near windmills go up to 85 decibels (dB), the equivalent of large trucks. The drone of a turbine, which operates day and night, is above 70dB. By comparison, noise in urban areas is 55 dB and even in industrial areas, is lower at 75dB. Ambient noise in forests is less than 40 dB.
- Such avoidance and movement to forest fringes might increase conflict with humans. This calls for protocols and policy guidelines before diverting forest land for wind farms.
- In Chitradurg area, perhaps the only one where three types of antelopes are found: four-horned, chinkara, and blackbuck. And all these are moving away towards fringes of forests.
- Following them are predators such as wolves and small carnivores. This is bound to increase conflict. For certain small herbivores such as hare, the predator-free patches represented safety.

India's First Dolphin Research Centre

In News

Much-awaited National Dolphin Research Centre (NDRC), India's and Asia's first, would be a reality here soon.

Key Highlights

- After remaining in a limbo for nearly six years on one or the other pretext, the NDRC is likely to be set up on the banks of the Ganga river in the Patna University premises.
- It will play an important role in strengthening conservation efforts and research to save the endangered mammal.
- **A well-reputed expert on Gangetic river dolphins, R.K. Sinha**, who is currently Vice Chancellor of the Nalanda Open University, said the NDRC will prove a boon for research and conservation of dolphin.
- **Sinha, known as the Dolphin Man** for his research on Gangetic dolphins as professor in Patna University.

Important Points About The Gangetic River Dolphin

- Gangetic river dolphin is India's national aquatic animal but frequently falls prey to poachers and is sometimes killed inadvertently after being trapped in plastic fishing nets and hit by mechanized boats.

- The mammals are being killed at an alarming rate with wildlife officials saying poachers covet them for their flesh, fat and oil.
- **R K Sinha, who has been conferred a Padma Shri** for his research on dolphins, said the mammal's presence signals a healthy river ecosystem. Dolphins prefer water that is at least 5-8 feet deep. They are usually found in turbulent waters where there is enough fish for them to feed on.
- Gangetic dolphins prefer deep water with adjoining shallow water. They live in a zone where there is little or no current that helps them save energy. If they sense danger, they can go into deep waters. The dolphins swim from the no-current zone to the edges to hunt for fish and return.
- The Vikramshila Gangetic Dolphin Sanctuary, India's only dolphin sanctuary, spread over 50 km along the Ganges, is located in Bihar's Bhagalpur district.
- Gangetic river dolphins fall under **Schedule I of the Indian Wildlife (Protection) Act** and have been declared an **endangered species** by the International Union for Conservation of Nature (IUCN).
- The Gangetic river dolphin is one of the four freshwater dolphin species in the world. The other three are found in the Yangtze river, the Indus river in Pakistan and the Amazon river.
- The Gangetic river species -- found in India, Bangladesh and Nepal -- is almost **completely blind**. It finds its way and prey using echoes -- with sound being everything for them to navigate, feed, escape danger, find mates, breed, nurse babies and play.
- The last survey was conducted in 2012 and nearly 1,500 dolphins were counted.

Western Ghats Is Home To The Eurasian Otter

In News

- It has taken more than 70 years to **confirm the presence of the elusive Eurasian otter — one of the least-known of India's three otter species** — in the Western Ghats.
- Ironically, researchers found the dead otter after a vehicle ran over it near a fragmented rainforest in Tamil Nadu's Valparai.
- Scientists affiliated with the Laboratory for Conservation of Endangered Species at Hyderabad's Centre for Cellular and Molecular Biology conducted genetic analyses of its tail tissue to confirm that it was the **Eurasian otter (Lutra lutra)**.
- Though the Eurasian otter has been recorded historically from the Western Ghats (Coorg in Karnataka and Tamil Nadu's Nilgiri and Palani hill ranges), this is the first photographic and genetic confirmation of its presence here.
- While the species is widespread across Europe, northern Africa and several south Asian countries, it is not as frequently sighted as smooth-coated or small-clawed otters in India.
- **Similar physical features make it very difficult to identify otter species in the wild.** Detailed surveys and studies to ascertain this are the need of the hour.
- This paucity of information doesn't help, with otters facing multiple threats. **Otter roadkills — caused by increasing fragmentation of forests and modification of their original habitats — are becoming increasingly common now.**
- Though protected by the Wildlife Protection Act (1972), otters are often illegally poached for pelts.

Centre Sets 'Minimum River Flows' For The Ganga**In News**

- In a first, the Union government has mandated the minimum quantity of water — or ecological flow as it's called in scientific circles — that various stretches of the Ganga must necessarily have all through the year.
- The new norms would require hydropower projects located along the river to modify their operations so as to ensure they are in compliance.

Key Highlights

- **The upper stretches of the Ganga — from its origins in the glaciers and until Haridwar — would have to maintain:**
 - 20% of the monthly average flow of the preceding 10-days between November and March, which is the dry season;
 - 25% of the average during the 'lean season' of October, April and May;
 - 30% of monthly average during the monsoon months of June-September.
- For the main stem of the Ganga — from Haridwar in Uttarakhand to Unnao, Uttar Pradesh — **the notification specifies minimum flow at various barrages:**
 - Bhimgoda (Haridwar) must ensure a minimum of 36 cubic metres per second (cumecs) between October-May, and 57 cumecs in the monsoon;
 - and the barrages at Bijnor, Narora and Kanpur must maintain a minimum of 24 cumecs in the non-monsoon months of October-May, and 48 cumecs during the monsoon months of June-September.
- Power projects that do not meet these norms as yet would be given three years to comply and “mini and micro projects” would be exempt from these requirements.
- The **Central Water Commission** would be the designated authority to collect relevant data and submit flow monitoring-cum-compliance reports on a quarterly basis to the NMCG.

Environmental flows describe the quantity, timing, and quality of **water flows** required to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend on these ecosystems. In the Indian context river flows required for cultural and spiritual needs assumes significance. In India, the need for environmental flows has emerged from the hundreds of large dams being planned in the Himalayan rivers for hydro power generation. The cascades of dams planned across the Lohit, Dibang River in the Brahmaputra River , the Alaknanda and Bhagirathi River in the Ganga basin and the Teesta in Sikkim for example, would end up in the rivers flowing more through tunnels and pen stocks rather than the river channel

Prakriti**In News**

Two Memoranda of Understanding (MoU) were signed by Indian Council of Forestry Research and Education (ICFRE), Dehradun, with Navodaya Vidyalaya Samiti (NVS) and Kendriya Vidyalaya Sangathan (KVS).

Objective

- The MoUs have been signed to launch the programme “**PRAKRITI**” with the objective to promote awareness about forests and environment, to stimulate interest among the students

of NVS and KVS in maintaining a balanced environment and for acquiring skills that reflect care and protection towards forests, environment and society.

- Another objective is to provide a platform to school children to learn practical skills towards judicious use of our resources and to mobilize a cadre of youth for raising a peoples' movement committed to conservation of forest and environment.

About ICFRE

- **ICFRE is an autonomous Council under the Ministry of Environment, Forest and Climate Change.**
- ICFRE, through its nine Institutes and five Centres located across the country, is guiding, promoting and coordinating forestry research, extension and education at the national level.
- Currently ICFRE is focusing on contemporary issues of national and international importance particularly in the areas of climate change, forest productivity, biodiversity conservation and skill development.

- **Navodaya Vidyalaya Samiti was established with the primary objective to provide modern quality education to talented children, predominantly from the rural areas, without regard to their family's socio-economic condition.** At present, it has 660 functional residential schools.
- Kendriya Vidyalaya Sangathan was established in 1963 to provide uninterrupted education to wards of the transferable Central Government employees. KVS established Kendriya Vidyalayas all over the country to impart quality education, promotion of national integration, adventure activities, physical education etc.

UNDP Supported Project To Boost Climate Resilience

In News

- The Government of India took an important step toward its goals for low-carbon, climate-resilient development with the approval of a US\$43 million grant from the **Green Climate Fund**.
- It will support climate resilience of millions of **people living in the coastal states of Andhra Pradesh, Maharashtra and Odisha.**

About The Project

- The new project will be supported through **the United Nations Development Programme (UNDP), and is an essential step for India in reaching its goals outlined in the Paris Agreement and 2030 Agenda for Sustainable Development.**
- These global compacts call on every nation to end poverty and hunger by 2030, and to take strong action to ensure no one is left behind in protecting vulnerable people from the extreme impacts of climate change.
- People are expected to directly benefit from livelihoods support and indirectly benefitting from improved shoreline protection.
- **In reaching the Sustainable Development Goals for gender equality and reduced inequalities,** the project is focused on providing tangible benefits for women, female-headed households, young people and the elderly, and members of Scheduled Castes and Tribes.
- **The Government of India will finance an additional US\$86.8 million toward the new project to mainstream and accelerate the impacts of the Green Climate Fund grant.**

- **To be led by the Ministry of Environment, Forest and Climate Change, with support from UNDP, the six-year project will work with communities in restoring ecosystems and promoting climate-resilient livelihood options, such as the sustainable farming of mud crabs.**
- **To protect life on land and below water as outlined in the 2030 Agenda, project activities will focus on the restoration and conservation of over 15,000 hectares of mangroves, coral reefs, seagrasses and saltmarshes.** Communities, including local youth, will be trained to work with scientists in monitoring ecosystem health and coastal ecology.
- The project is set to begin in early 2019 and run to the end of 2024.

Note

- India's coastline is expected to be among the regions most affected by climate change globally. The Bay of Bengal and the Arabian Sea are both predicted to be subject to **extreme climate variability, with the frequency and intensity of cyclones and extreme weather events projected to increase, particularly on the eastern coastline.**
- Climate change projections predict a 2°C rise in average annual temperatures across South Asia by the mid-21st century, exceeding 3°C by the late 21st century. According to a report from the World Bank, an increase in global mean surface temperatures of 2°C will make India's monsoon highly unpredictable, while a 4°C increase would result in an extremely wet monsoon (which currently has a chance of occurring only once in 100 years) occurring every 10 years by the end of the century.
- India has about **6,740 km² of mangroves**, including some of the largest mangrove forests in the world. Mangrove cover along India's coastline has decreased by 50% in some areas, largely because of human pressures, including alteration of flow of freshwater from upstream. Sea-level rise is predicted to result in further reductions
- **SDG Goal 13: Take urgent action to combat climate change and its impact.**

- **The Green Climate Fund (GCF) is a new global fund created to support the efforts of developing countries to respond to the challenge of climate change.** GCF helps developing countries limit or reduce their greenhouse gas (GHG) emissions and adapt to climate change. It seeks to promote a paradigm shift to low-emission and climate-resilient developments, taking into account the needs of nations that are particularly vulnerable to climate change impacts.
- **It was set up by the 194 countries who are parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 2010**, as part of the Convention's financial mechanism. It aims to deliver equal amounts of funding to mitigation and adaptation, while being guided by the Convention's principles and provisions.
- **Timeline -**
 - **2009: The general concept for GCF is first proposed at the Conference of the Parties (COP) to the UNFCCC in Copenhagen, Denmark (COP 15).**
 - **2010: The COP in Cancun, Mexico (COP 16), decides to establish GCF.**
 - **2011: GCF's Governing Instrument is adopted in Durban, South Africa (COP 17), where it is given the mandate to make "an ambitious contribution to the global efforts towards attaining the goals set by the international community to combat climate change."**
 - **2013: The Fund establishes its permanent headquarters in Songdo, Republic of Korea, in December 2013.**
 - **2015: The first investment decisions are taken, including both mitigation and**

adaptation projects, meeting the target set by the UNFCCC in advance of the Paris COP. 195 countries agree to the historic Paris Agreement, which GCF now serves as a financial mechanism of the Convention

Unclogging Our Oceans

In News

The problem of **ghost gear (any fishing equipment that has been lost, discarded or abandoned in water bodies)** has grown from fishing fallout that people had not heard of to one that is now difficult to ignore.

Consequences Of Marine Debris

- Between 2011 and 2018 alone, the Olive Ridley Project, a U.K. registered charity that removes ghost nets and protects sea turtles, recorded 601 sea turtles being entangled in ghost gear near the Maldives, of which 528 were Olive Ridges.
- Other casualties worldwide include whales, dolphins, sharks and even pelagic birds.
- There are still no data pertaining to the extent of prevalence of ghost gear off India's coast. And data is crucial here, for the detrimental effects of these nets also spillover into other countries and oceans.
- Ghost nets are often 'ghost fishers'. Ocean currents carry them for thousands of km across the ocean floor, ensnaring, injuring and drowning marine life and damaging live corals along the way.

Government Policy On Net Management

- According to the scientists, the government is also currently preparing a national ghost net management policy.
- While that is an extremely welcome and timely move to tackle the growing ghost gear phenomenon, a larger question remains. When bigger violations, such as large vessels fishing where they are not supposed to, are not checked, would a policy on the management of ghost nets be implemented.
- But the consequences of overfishing, using nets of the smallest mesh size, and illegal fishing are far less visible, though more worrying. Entire fishing communities are affected by these actions, especially in developing countries like India where the demand for fish keeps rising.

Transforming Used Nets

- In countries like Canada and Thailand, fishermen retain their used nets; these are recycled into yarn to craft socks and even carpet tiles.
- For the first time in a developing country, a gear-marking programme is being tested in Indonesia so that the trajectory of gear, if it drifts away, can be studied better.
- Outreach and education among fishing communities would be crucial along with policy-level changes.

Way forward

In one instance in India, **ghost nets hauled from Kerala's Kollam have been used to pave roads.** This shows that transformation is possible, though more efforts to make the process more organised across the over 7,500 km of India's coasts, as well as inland water bodies, are the need of the hour.

STAPCOR – 2018**In News**

- The International Conference on **Status and Protection of Coral Reefs** (STAPCOR – 2018) was held at Bangaram coral Island of Union Territory of Lakshadweep.
- **Theme: “Reef for Life”**
- A coral reef is an underwater ecosystem characterized by reef-building corals. Reefs are formed of colonies of coral polyps held together by calcium carbonate. Most coral reefs are built from stony corals, whose polyps cluster in groups.

Key Highlights

- The effect of climate change and global warming along with El-Nino on the corals has led to heavy bleaching internationally during the year 1998.
- **This led to the foundation of STAPCOR with a decision to have an international conference in every 10 years** to review the status and progress of coral reefs all over the world.
- The first International Year Of Reef (IYOR) was designated in 1997 in response to the increasing threats on coral reefs and associated ecosystems. 2007 was designated as the second IYOR.
- 2018 has been designated as 3rd decadal International Year Of Reef.
- Lakshadweep will establish an International Atoll Research Centre, with world class infrastructures for scientific research on corals.

Citizen-Science Repository of Indian Mammals**In News**

Scientists and researchers from the National Centre for Biological Sciences (NCBS) in Bangalore have come up with a **new citizen-science repository on Indian mammals, called Mammals of India (MaOI)**, which is an online, peer- reviewed, freely-accessible portal.

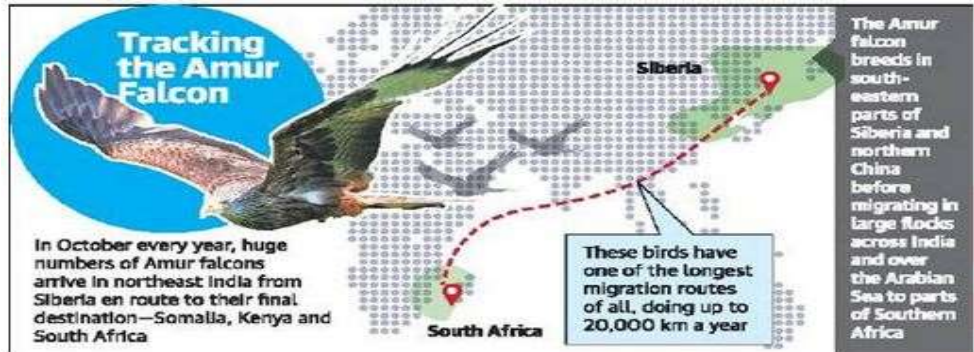
About The Repository

- The website provides an opportunity to any person to upload geotagged photographic observations about mammals with information on habitat age of the observed individual.
- Over time, these observations will be reviewed by subject experts and uploaded on the website.
- **The website, www.mammalsofindia.org, aims to develop individual species pages for all Indian mammals with information on identification, variation, distribution, breeding and non-breeding ecology and species conservation.**
- Citizens can also **contribute** to the cause of science by sharing the picture of the animal on a specific website, providing the location of spotting. So far, there was no portal exclusively for mammals. These photographic records will help in having distribution map of mammals in the country.
- Under the project, a popular citizen-science website on butterflies of India **www.ifoundbutterflies.org** had got to 55,000 reference images in eight years. Under the same project websites dedicated Moths of India, Cicads of India, Odonatas of India (dragonflies and damselflies), Reptiles of India, Amphibians of India and Birds of India are operational.
- The photographs will not only help gather information on the distribution of the various species but also interactions between different species of mammals, like predation and mutualism.

Siberian Visitors in Assam-Meghalaya Border

In News

- Umru village on the Assam-Meghalaya border lacks a road but that doesn't stop its famous winter visitors — a flock of Amur falcons, the world's longest travelling raptors.
- While Doyang Lake near Pangti village in Nagaland's Wokha district is better known as a stopover for the Amur falcons during their annual migration from their breeding grounds in Mongolia and northern China to warmer South Africa, a flock has been seen since 2010 in Umru.
- Assam claims the village is under Baithalango Assembly constituency of East Karbi Anlong district while Meghalaya asserts it is under Mawhati Assembly constituency of its Ri-Bhoi district.



Common Cause

- But these disputes are forgotten when the village welcomes the falcons in mid-October, uniting to ensure a safe stay for the birds.
- Both communities have made common cause in protection of the Amur falcons and have fixed a fine of ₹25,000 for anyone caught ensnaring or killing the birds.

Birdwatchers Paradise

- **The Tyrso Valley Wildlife Protection Society is an NGO** formed by the villagers of the eponymous Meghalaya village adjoining Umru.
- **The group has been organising the Amur Falcon Festival since 2015 to celebrate the “birds that have this back-of-beyond area famous”.**
- **The festival is scheduled on November 7-8, a fortnight before the birds are expected to soar for the next destination on their migration.**

The Amur falcon (*Falco amurensis*), with **Least Concerned as IUCN** status, is a small raptor of the falcon family. The raptors breed in southeastern Siberia and northern China, and migrate in millions across India and then over the Indian Ocean to southern Africa before returning to Mongolia and Siberia, making their 22,000-kilometre migratory route one of the longest amongst all avian species. The falcons eat various winged termites and other insects that destroy crops thus helping farmers.

CSIR Develops Less Polluting Firecrackers

In News

- The new crackers have been developed by scientists of two national labs - Central Electrochemical Research Institute (CECRI) based in Karaikudi, Tamil Nadu and National Environmental Engineering Research Institute (NEERI) in Nagpur.
- These crackers have been named as safe water releaser (**SWAS**), **safe minimal aluminium (SAFAL)** and **safe thermite cracker (STAR)**.

- **It has unique property of releasing water vapour and /or air as dust suppressant** and diluent for gaseous emissions and matching performance in sound with conventional crackers.
- **SWAS crackers eliminates usage of (KNO₃) Potassium nitrate and Sulphur** with consequent reduction in particulate matter (30-35%) SO₂ and NO_x. It has matching sound intensity with commercial crackers in the range of 105-110 dBA.
- **STAR** eliminates usage of KNO₃ and S with consequent reduction in particulate matter (35-40%), SO₂ and NO_x. It has matching sound intensity with commercial crackers in the range of 105-110 dBA.
- **SAFAL** has minimal usage of aluminium (only in flash powder for initiation) with consequent significant reduction in particulate matter (35-40 %) compared to commercial crackers. It has matching sound intensity with commercial crackers in the range of 110-115 dBA
- **Functional prototypes of flower pots for substitution of BaNO₃** (Barium nitrate) by low cost eco-friendly materials have been developed with significant reduction in particulate matter (30-35%).
- **E-crackers-** CSIR-CEERI, being an electronics laboratory, is developing safe and pollution free technology of electronic crackers (E-crackers) to meet latent social aspiration of enjoying fireworks. It includes various products like E-Ladi, E-Anar, system for E-cracker show etc. At present CSIR-CEERI is ready with the laboratory level prototype of E-Ladi.
- **E-Ladi is based on high-voltage electrostatic discharge** to generate light/sound effect. It is triggered by providing heat to the thermal switch which will give the excitement of firing the conventional cracker. The E-Ladi is also programmable to give various light/sound effect.

Flower pot essentially comprises of alkali nitrates, Aluminium powders of different grain sizes and in some cases the binder to enhance luminescence.

Aluminium has been used as a primary heat source and to produce flash. In order to reduce the ignition temperature and subsequently to minimize the particulate matter, **Magnesium could be a viable alternative to Aluminium.**

Living Planet Report Earth's Wild Animal Population Plumets 60% In 44 Years: WWF

In News

- Living The Living Planet Report 2018 has been published by the World Wide Fund for Nature (WWF).
- It is being published every two years by the WWF since 1998. It is based on the Living Planet Index and ecological footprint calculations.

Key Findings of WWF's Living Planet Report

- Runaway consumption" has decimated global wildlife, triggered a mass extinction and exhausted Earth's capacity to accommodate humanity's expanding appetites.
- From 1970 to 2014, 60% of all animals with a backbone — fish, birds, amphibians, reptiles and mammals — were wiped out by human appetites and activity.
- For freshwater fauna, the decline in population over the 44 years monitored was a staggering 80%. Regionally, Latin America was hit hardest, seeing a nearly 90% loss of wildlife over the same period.
- Measured by weight, or biomass, wild animals today only account for 4% of mammals on Earth, with humans (36%) and livestock (60%) making up the rest.

- The current rate of species loss is 100 to 1,000 times higher than only a few hundred years ago.
- The index of extinction risk for five major groups — birds, mammals, amphibians, corals and an ancient family of plants called cycads — shows an accelerating slide towards oblivion.
- By definition, this means that Earth has entered a mass extinction event, only the sixth in half-a-billion years.
- So far, we have clearly breached two of these so-called planetary boundaries: species loss, and imbalances in Earth's natural cycles of nitrogen and phosphorous (mainly due to fertiliser use).
- For two others, climate and land degradation, we have one foot in the red zone. Ocean acidification and freshwater supply are not far behind. As for new chemical pollutants such as endocrine disruptors, heavy metals, and plastics, we simply do not know yet how much is too much.
- Nearly 20% of the Amazon rainforest, the world's largest, has disappeared in five decades. Tropical deforestation continues unabated, mainly to make way for soy beans, palm oil and cattle.
- Satellite data shows the pace of that degradation picked up by 20% from 2014 to 2016, compared with the previous 15 years.
- Since 1950, our species has extracted 6 billion tonnes of fish, crustaceans, clams, squids and other edible sea creatures. Despite the deployment of increasingly sophisticated fishing technologies, global catches — 80% by industrial fleets — peaked in 1996 and have been declining since.
- Coastal mangrove forests, which protect against storm surges made worse by rising seas, have also declined by up to half over the last 50 years.

The Great Acceleration

- Back-to-back marine heatwaves have already wiped out up to half of the globe's shallow-water reefs, which support a quarter of all marine life.
- Even if humanity manages to cap global warming at 1.5°C (2.7°F) — mission impossible, according to some scientists — coral mortality will likely be 70 to 90%.

India Soil Diversity in Danger

In News

According to the Global Soil Biodiversity Atlas prepared by the World Wide Fund for Nature, India's soil biodiversity is in grave peril.

Key Highlights

- The WWF's 'risk index' for the globe — indicating threats from loss of above-ground diversity, pollution and nutrient over-loading, over-grazing, intensive agriculture, fire, soil erosion, desertification and climate change — shows India among countries whose soil biodiversity faces the highest level of risk.
- Soil biodiversity encompasses the presence of micro-organisms, micro-fauna (nematodes and tardigrades for example), and macro-fauna (ants, termites and earthworms).
- The two key drivers of biodiversity loss were the over exploitation of natural resources and agriculture, the WWF added in its Living Planet report.
- While India's per capita ecological footprint was less than 1.75 hectares/person (which is in the lowest band, among countries surveyed) its high population made it vulnerable to an ecological crisis, even if per-capita consumption remained at current levels.

- A Tamil Nadu Agricultural University study that observed that while 150 million bee colonies were needed to meet the pollination requirements of about 50 million hectares of agricultural land in India, only 1.2 million colonies were present.
- To address these challenges, the WWF suggests **three necessary steps**:
 - Clearly specifying a goal for biodiversity recovery;
 - Developing a set of measurable and relevant indicators of progress; and
 - Agreeing on a suite of actions that can collectively achieve the goal in the required time frame.”

Disaster Management

Forest Fires In India

In News

- With at least one in four people dependent on forests for their livelihood, India is losing at least ₹1,100 crore due to forest fires every year, says a new World Bank report.
- The report, ***Strengthening Forest Fire Management in India***, jointly prepared by the ministry of environment, forest and climate change (MoEFCC) and the World Bank.

Key Points

- Forest fires occur in around half of the country's 647 districts every year. However, repeated fires in short succession are reducing diversity of species and harming natural regeneration, while posing a risk to over 92 million in India who live in areas of forest cover.
- Central India has the largest area affected by fire. The region, which has the highest forest cover in India after North-East, accounts for 56% of burnt forest land during 2003-2016, followed by southern states and the North-East.
- North-eastern states account for the biggest share of fire detections, with at least 55% of fire incidents reported during 2003-2016. The report calls for a national plan for the prevention of forest fire.

Significance

- The findings are significant since preventing forest fires is crucial to meet Nationally Determined Contributions (NDC) in order to limit global warming.
- As per the Fifth Assessment Report of IPCC, forest fires globally contribute 2.5 billion to 4.0 billion tonnes of CO₂ to carbon emissions every year.
- Tackling forest fires is even more important in India as the country has committed to bringing 33% of its geographical area under forest cover by 2030, as part of its Nationally Determined Goals (NDC) and increases its forest cover by 5 million hectares, as part of India's National Action Plan on Climate Change.

Way Forward

For combating forest fires, apart from incentivizing communities and forest departments, there is also a need to bring a social movement across states to address the issue.

12th ADMM and the 5th ADMM-Plus Meeting

In News

- The 12th ASEAN Defence Ministers Meeting (ADMM) and 5th ADMM-Plus was held on October 19 and 20, 2018 in Singapore.
- This was second time Singapore has chaired ADMM since its establishment in 2006 and first time to chair ADMM-Plus since its establishment in 2010.
- ADMM and ADMM-Plus serves as key Ministerial-level platforms in regional security architecture for promoting strategic dialogue and practical cooperation between ASEAN and its partners.

Key Highlights

- The participating leaders expressed satisfaction regarding significant progress on deliverables. These deliverables include three focus areas. These are:
 1. the "Our Eyes" Initiative for strategic information sharing and the "3Rs" – Resilience, Response and Recovery – concept of counter-terrorism;
 2. a new network of ASEAN chemical, biological, and radiological defence experts to share best practices and make quick contact during crises; and
 3. the adoption of the Guidelines for Air Military Encounters (GAME) by the ADMM, to which the Plus countries are in-principle supportive.
- Leaders welcomed Joint Statements on Preventing and Countering the Threat of Terrorism and Practical Confidence-Building Measures by the 5th ADMM-Plus.
- The Joint Statements mark the first time since 2013 that the ADMM-Plus has issued joint outcome documents.

About ASEAN Defence Ministers' Meeting (ADMM-Plus)

- The ADMM-Plus is a platform for **ASEAN and its eight Dialogue Partners** to strengthen security and defence cooperation for peace, stability, and development in the region.
- Ten ASEAN Member States include Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Viet Nam.
- Eight Dialogue Partners of ASEAN which are members of ADMM plus include - Australia, China, India, Japan, New Zealand, ROK, Russian Federation, and the United States.
- The **Inaugural ADMM-Plus** was convened in Ha Noi, Viet Nam, on 12 **October 2010**.
- The objectives of the ADMM-Plus are as follows:
 - To benefit ASEAN member countries in building capacity to address shared security challenges, while cognisant of the differing capacities of various ASEAN countries;
 - To promote mutual trust and confidence between defence establishments through greater dialogue and transparency;
 - To enhance regional peace and stability through cooperation in defence and security, in view of the transnational security challenges the region faces;
 - To contribute to the realisation of an ASEAN Security Community which, as stipulated in the Bali Concord II, embodies ASEAN's aspiration to achieve peace, stability, democracy and prosperity in the region where ASEAN member countries live at peace with one another and with the world at large;

- To facilitate the implementation of the Vientiane Action Programme, which calls for ASEAN to build a peaceful, secure and prosperous ASEAN, and to adopt greater outward-looking external relation strategies with our friends and Dialogue Partners.

Citizenship Status of Gorkhas Living in Assam

Syllabus: Security challenges and their management in border areas

In News

The central government has clarified that members of the Gorkha community living in Assam can neither be sent to detention centres nor can cases on their citizenship status be referred to the Foreigners Tribunals.

Key Highlights

- Ministry of Home Affairs has sent a letter to the Assam government clarifying the status of Gorkhas living in Assam.
- According to letter, the Gorkhas who were Indian citizens at the time of commencement of the Constitution, or those who are Indian citizens by birth, or those who have acquired Indian citizenship by registration or naturalisation according to the provisions of the Citizenship Act, 1955, cannot be termed “foreigners”.
- It has asked the state government not to refer such cases to the foreigners’ tribunals.
- It further confirmed that Gorkha members holding Nepalese nationality and who arrived in India by land or air even without a passport or visa, and who have been staying in India for any length of time, will not be treated as illegal migrants if they can produce any Nepalese identity documents.
- For children below the age of 10, the letter said that, no identification documents are required under provisions of the India-Nepal Treaty signed in 1950.
- For children between age group of 10-18 years, a photo ID issued by the principal of the school, if accompanied by parents having valid travel documents, would be adequate for them not to be deemed as foreigners.
- The ministry also clarified that only those individuals, who have come from specified territories i.e. territories included in Bangladesh immediately before commencement of the Citizenship (Amendment) Act, 1985, to the State of Assam, and are not Indian citizens, can be referred to the Foreigners tribunals.

Background

- Assam has a Gorkha population of nearly 2.5 million. After the National Register of Citizens was published in June, more than 1 lakh Gorkhas found their names missing in the final draft.
- Some of these cases were referred to the Foreigners Tribunal as the citizens’ names were included in the voters’ list in contravention to the India-Nepal Treaty signed in 1950.
- Last month, the All Assam Gorkha Students’ Union informed Union Home Minister of a few cases of Gorkhas being referred to the Foreigners Tribunals.

The Foreigners Act, 1946

- The Foreigners Act has been enacted on 23rd November 1946. This Act has been established to enforce a law relating to the legal status and protection of immigrants.
- This Act conferred several powers to the Central Government in pursuance to the entry of

foreigners or immigrants, their presence in our Country and in regard to their departure.

- The main objective of this Act is to endow with recommending, regulating and restricting a foreigner amongst other things their presence and their continuous presence in India.
- This Act clearly conditioned that the foreigner should come to India only at the specified period, specified routes to a specified place, etc. by following such other conditions made by the Central Government vis-à-vis a foreigner should not depart without following the above conditions forced by the Central Government for their arrival.

NRC for Tripura

Syllabus: Security challenges and their management in border areas

In News

- The Supreme Court has issued a notice to the centre and the Election Commission of India on a plea seeking that the National Register of Citizens (NRC) be updated to include Tripura.
- The plea was filed by the Tripura People's Front emphasizing the need for updating the NRC for Tripura.

Background

- The NRC demand gained traction in Tripura's political landscape following the publication of the final draft in Assam.
- However, at that time, it was dismissed by the government stating that the process in Assam originated in the Assam Accord and the situation in Tripura does not warrant updating the NRC.
- Later, the descendent of the **erstwhile kingdom's former royals**, Pradyot Bikram Maikya Debbarma, has filed an affidavit in the Supreme Court in favour of the NRC.

Analysis

- According to the petition filed in SC, there is a huge influx of illegal immigrants through Tripura-Bangladesh border. It is necessary to identify and deport illegal immigrants living in the state.
- Not only that, according to the supporter of NRC, fencing of the Tripura-Bangladesh border to prevent influx of illegal immigrants is also necessary.
- However, many analysts believe that the petition is only an additional indicator of the existing fault-lines in the state as there is little to no consensus regarding this.
- Many tribal groups, championing an ethnocentric cause, are fearing that if the number of tribal people left out of the final draft of Assam's NRC is an indicator, the same could happen in Tripura.
- There are many tribal groups who are campaigning to attain statehood for the Tripura Tribal Autonomous Areas District (TTAAD) areas in the form of Twipraland.
- Also, there has been reports that the current Tripura CM, Biplab Deb, was born in Bangladesh. However, when he assumed office, on March 4, the Dhaka Tribune had reported that his parents migrated to Tripura during the Bangladesh Liberation War.
- This indicates that they had come after the cut-off date mandated for Assam. This, in itself, is immaterial, as the petition filed by Tripura People's Front has demanded 1949 to be the cut-off year in line with Article 6 of the Constitution.
- As a result, many critics believe that the NRC in Tripura will likely witness old wounds reopening after a tenuous peace since AFSPA was withdrawn in 2015.