

UPSC CURRENT AFFAIRS - 2018
NOVEMBER 16-30(Part – II)
HINDU & PIB IN DEPTH ANALYSIS



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GENERAL STUDIES 1

ART AND CULTURE

Incredible India campaign: Tawang Monastery

IN NEWS:

- The Incredible India campaign has goofed up on **Tawang Monastery in Arunachal Pradesh**, suggesting the ancient structure was built just three decades ago.

IN DEPTH:

TAWANG MONASTERY

- Known in Tibetan as Gaden Namgyal Lhatse, the Tawang Monastery** was built according to the wishes of the 5th Dalai Lama, Ngawang Lobsang Gyatso.
- It was founded **in 1680-81** by a monk named **Merag Lodre Gyatso** of the Gelug sect after the 4th Dalai Lama gave him a painting of goddess Palden Lhamo to be kept in the monastery.
- An eight-metre high gilded statue of **Lord Buddha** dominates the sanctum of the monastery.
- Local legend has it that China had attacked Tawang in 1962 primarily to extract the secret to eternal youth believed to be buried under the monastery built at about 10,000 ft above sea level.

INCREDIBLE INDIA:

- Incredible India** (styled as **Incredible!ndia**) is the name of an international tourism campaign maintained by the Government of India since 2002, to promote tourism in India to an audience of global appeal.
- In 2002, India's Ministry of Tourism launched a campaign to promote India as a popular tourist destination. The phrase "Incredible India" was adopted as a slogan by the ministry
- The campaign portrayed India as an attractive tourist destination by showcasing different aspects of Indian culture and history like yoga, spirituality, etc.
- The campaign was conducted globally and received appreciation from tourism industry observers and travellers alike

GENERAL STUDIES 2

GOVERNANCE

26-week maternity leave law

IN NEWS:

- The **Ministry of Labour and Employment** is working on an **incentive scheme** whereby the government would bear the cost of maternity leave wages for seven weeks, subject to certain conditions.
- In a bid to encourage employers **to implement the extended 26-week maternity leave law**, the Labour Ministry plans to refund them for seven weeks' worth of wages for women workers with a wage ceiling up to rupees 15,000 a month. (incentive scheme)
- The financial implication to the Centre is estimated to be **400 crore**, and the Ministry is in the process of obtaining budgetary approvals.

IN DEPTH:

MATERNITY BENEFIT ACT 2017:

- In March 2017, the Centre amended the **Maternity Benefit Act** to increase paid maternity leave from 12 to 26 weeks for all women employees in establishments employing 10 or more people.
- Maternity Benefit Amendment Act, 2017, increases the paid maternity leave from 12 weeks to 26 weeks and mandatory crèche facility.
- Amendments seek to improve infant mortality rate (34 per 1,000 live births) and maternal mortality rate (167 per 100,000 live births).
- To ensure that working women are not forced to discontinue breastfeeding.
- To make provision for just and humane conditions for work and maternity relief (Article 42).

IMPLEMENTATION STATUS:

- However, implementation was very poor with private sector or contract jobs.
- Some private entities didn't encourage women employees because if they are employed, they may have to provide maternity benefit to them, particularly 26 weeks of paid holiday.
- Women employees were asked to quit or are retrenched on flimsy grounds before they go on maternity leave.

VARIOUS REPORTS ON MATERNITY LEAVE:

- **2014 ILO report** had specially cautioned against making employers solely liable for the cost of maternity benefits. Advocated that maternity benefits should be provided either through compulsory social insurance or public funds.
- **Standing Committee on Labour in 2007** had suggested that the government should create a corpus fund to partially sponsor the costs to be incurred by the employer to provide maternity benefits.

Witness protection scheme to be a reality soon**IN NEWS:**

- The Supreme Court recently said that it would direct all the **states to implement the draft witness protection scheme** framed by the Centre in consultation with the National Legal Services Authority (NALSA).
- The issue of witness protection scheme had cropped up earlier when the top court was hearing a public interest litigation (PIL) seeking protection for witnesses in rape cases involving self-styled preacher Asaram Bapu.
- The scheme aims to **promote law enforcement by facilitating the protection of persons** who are involved directly or indirectly in providing assistance to criminal law enforcement agencies and overall administration of Justice.

IN DEPTH:**DRAFT WITNESS PROTECTION SCHEME:**

- The objective of this Scheme is to ensure that the **investigation, prosecution and trial of criminal offences** is not prejudiced because witnesses are intimidated or frightened to give evidence without protection from violent or other criminal retribution.
- The scheme shall extend **to the whole of the India** except the State of Jammu & Kashmir.
- During the course of investigation or trial of any serious offence, an application for seeking identity protection can be filed in the prescribed form before the Competent Authority.
- The scheme has three categories of witnesses based on the threat perception, and the states should start enforcing it:
- **Category 'A'**: Where the threat extends to life of witness or his family members and their normal way of living is affected for a substantial period, during investigation/trial or even thereafter.
- **Category 'B'**: Where the threat extends to safety, reputation or property of the witness or his family members, only during the investigation process or trial.
- **Category 'C'**: Where the threat is moderate and extends to harassment or intimidation of the witness or his family member's, reputation or property, during the investigation process.

OTHER PROVISIONS:

- **Witness Protection Fund** means the fund created for bearing the expenses incurred during the implementation of Witness Protection Order passed by the Competent Authority under this scheme;
- **Witness Protection Order** means an order passed by the Competent Authority detailing the steps to be taken for ensuring the safety of witness from threats to his or his family member's life, reputation or property. It also includes interim order, if any passed, during the pendency of Witness Protection Application;
- **Witness Protection Cell** means a dedicated Cell of State/UT Police or Central Police Agencies assigned the duty to implement the witness protection order. It shall be responsible for the security as per witness protection order

WITNESS ENABLED WITH SUCH RIGHTS:

- Right to give evidence anonymously
- Right to protection from intimidation and harm
- Right to be treated with dignity and compassion and respect of privacy
- Right to information of the status of the investigation and prosecution of the crime
- Right to secure waiting place while at Court proceedings

UNESCO global education monitoring report 2019

IN NEWS:

UNESCO report says that –

- **Literacy levels** in rural households of India **dip with seasonal migration**.
- 80% of seasonal migrant children in seven cities lacked access to education and 40% were likely to end up in work.
- Construction sector absorbs the majority of short-term migrants.
- Inter-State migration rates have doubled between 2001 and 2011.
- It also warns of the negative impact on education for children who are left behind as their parents migrate: “Test scores were lower among left-behind children aged 5 to 8.”

IN DEPTH:

STEPS TO BE TAKEN BY INDIA:

- Right to Education Act in 2009 made it mandatory for local authorities to admit migrant children.
- National-level guidelines are issued to allow for flexible admission of children; to provide transport and volunteers to support with mobile education; create seasonal hostels and aiming to improve coordination between sending and receiving districts and states.

Erudite hosts

Some States in India have begun initiatives for the welfare of children of migrant parents

GUJARAT

- It has introduced seasonal boarding schools to provide education to migrant children
- It has also collaborated with NGOs to begin online tracking of the children on the move

MAHARASHTRA


- Authorities have enrolled volunteers to provide after-school psycho-social support to children left behind by migrating parents

ODISHA

- The State has taken up the responsibility of seasonal hostels run by NGOs
- It also works with Andhra Pradesh to improve the well-being of migrants

TAMIL NADU

- The govt. provides textbooks in languages other than Tamil to migrant children



Pradhan Mantri Sahaj Bijli Har Ghar Yojana or “Saubhagya” scheme

IN NEWS:

- International Energy Agency finds India’s rural electrification one of the greatest success stories this year.
- Saubhagya Scheme aims to achieve universal household electrification in all parts of the country.
- The scheme primarily benefits rural areas, which have vast majority of households without power connections.
- The beneficiaries for free electricity connection would be identified using Socio Economic and Caste Census (SECC) 2011 data.

IN DEPTH:

PRADHAN MANTRI SAHAJ BIJLI HAR GHAR YOJANA:

- Pradhan Mantri Sahaj Bijli Har Ghar Yojana - Saubhagya is to provide energy access to all by last mile connectivity and electricity connections to all remaining un-electrified households in rural as well as urban areas to achieve universal household electrification in the country.
- The electricity connection to households include release of electricity connections by drawing a service cable from the nearest pole to the household premise, installation of energy meter, wiring for a single light point with LED bulb and a mobile charging point.
- In case the electricity pole is not available nearby from household for drawing service cable, the erection of additional pole along with conductor and associated accessories shall also be covered under the scheme.
- The States and Union Territories are required to complete the works of household electrification by the 31st of December 2018

HIGHLIGHTS OF THE SAUBHAGYA ELECTRICITY SCHEME

- The scheme is launched on the occasion of the birth centenary celebration of Pandit Deen Dayal Upadhyaya on 25th September.
- Scheme aims to achieve 24x7 power for all by 2019 by providing electricity connection to each household across the country.
- Scheme will provide subsidy on equipment such as transformers, wires and meters.
- Ministry of Power would be the implementing authority of the scheme.
- Power connection will be provided in both rural and urban areas of the country.

OUTCOME OF THE SCHEME:

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

U.S. citizen killed by Andaman tribals

IN NEWS:

U.S. citizen was killed by Andaman tribals when he tried to enter **the North Sentinel Island** (one of the Andaman Islands).



IN DEPTH:

ABOUT SENTINELESE TRIBE:

- The Sentinelese, a negrito tribe who live on the North Sentinel Island of the Andamans, have not faced incursions and remain hostile to outsiders.
- The inhabitants are connected to the Jarawa on the basis of physical, as well as linguistic similarities, researchers say.
- Based on carbon dating of kitchen middens by the Anthropological Survey of India, Sentinelese presence was confirmed in the islands to 2,000 years ago. Genome studies indicate that the Andaman tribes could have been on the islands **even 30,000 years ago**.
- The Sentinelese have been fiercely hostile to outside contact. But in **1991** they accepted some coconuts from a team of **Indian anthropologists** and administrators.
- Some researchers argue that the Sentinelese have been mostly **left alone even from colonial times**, unlike other tribes such as the Onges, Jarawas and Great Andamanese, because the land they occupy has little commercial attraction.
- From 1901 to 1921 they were estimated to be 117 people. In 1931, the number dropped to 50, a figure used for the 1961 Census too. In 1991 their head count was put at 23.
- Census 2001 counted 39 inhabitants.

GOVERNMENT ACT ON PROTECTION OF TRIBALS:

- Access to North Sentinel Island and its buffer zone is strictly restricted under the **Protection of Aboriginal Tribe (Regulation), 1956** and **Regulations under Indian Forest Act, 1927**.
- Photographing or filming the tribe members is also an offence. The rules were amended later to enhance penalties. But restricted area permits were relaxed for some islands recently.

Measles and Rubella vaccination campaign

IN NEWS:

- Measles and Rubella vaccine is administered to all the children group of 9 months to 15 years.
- Measles-rubella (MR) vaccine is given for preventing both measles and rubella diseases in the child.
- No specific treatment is available for measles and rubella but these diseases can easily be prevented by vaccination.
- The Government is providing Measles-Rubella vaccine free of cost through its immunization programme.

IN DEPTH:

ABOUT MEASLES:

Measles is a deadly disease. Measles is an acute illness caused by a **virus** of the **paramyxovirus family**. It can lead to following complications –

- Pneumonia
- Diarrhoea
- Other deadly threats
 - The respiratory disease measles remains a leading cause of death among young children, despite the fact that a safe and effective vaccine has been available for 40 years.
 - It is one of the most **contagious diseases** and many children who do not have sufficient immunity contract measles if exposed.
 - During the first few weeks after contracting measles, a child's immune system becomes weakened, and a normal cold or diarrhoea can become a life-threatening illness.

ABOUT RUBELLA:

Rubella infection during pregnancy can cause congenital deformities in newborn baby, such as –

- Blindness
 - Deafness
 - Mental Retardation
 - Congenital heart disease
- Rubella is an **acute, contagious viral infection**.
- While rubella virus infection usually causes a mild fever and rash illness in children and adults, infection during pregnancy, especially during the First trimester, can result in miscarriage, fetal death, stillbirth, or infants with congenital malformations, known as **congenital rubella syndrome**
- The rubella virus is **transmitted by airborne droplets** when infected people sneeze or a cough. **Humans are the only known host**.
- There is no specific treatment, but the disease can be prevented by vaccination.

Are criminal laws ill-equipped to deal with cases of riots?

IN NEWS:

- According to Delhi High Court, general criminal law is ill-equipped to deal with communal riots cases.
- The statement was made after the HC upheld the conviction of 70 persons on the charges of rioting, burning houses and violating curfew during the 1984 anti-Sikh riots.

IN DEPTH:

REFORMS SUGGESTED BY HIGH COURT:

The HC observed that – after each event of communal riots, allegations of political influence have worked as the root cause or for protection of those responsible. It has suggested for several reforms ,

- Entrusting investigative and prosecution process in such cases to authorities other than normal agencies of the State.
- The High Court wondered if the initial task of gathering evidence or the duty to “preserve” evidence can be entrusted to the Human Rights Commissions in cases of communal riots situations.
- Once a Commission of Inquiry is instituted, under the Commission of Inquiry Act, 1952, further investigative process by gathering all evidence for such cases can be taken over by such Commissions of Inquiry.
- The court suggested amendments to the **Commissions of Inquiry Act, 1952** and the **Protection of Human Rights Act, 1993** to entrust the responsibility of investigation in communal riots **through SITs** specially constituted under their respective control.
- With the **technological advancements** that have been made and the rise of media — **print and electronic** — as an **effective fourth pillar of democracy**, the HC said there was a strong case for utilising as evidence the press reports, supported by photographic material or video footages in trials of criminal cases arising out of communal riots.

INTERNATIONAL RELATIONS

13th East Asia Summit in Singapore

IN NEWS:

- PM Modi called for enhancing multilateral cooperation and economic and cultural ties among member-nations.
- He reiterated India's commitment to a peaceful and prosperous Indo-Pacific region; strengthening maritime cooperation and commitment to a balanced RCEP.

IN DEPTH:

EAST ASIA SUMMIT:

- The EAS consists of 10 ASEAN nations (Indonesia, Thailand, Singapore, Malaysia, the Philippines, Vietnam, Myanmar, Cambodia, Brunei and Laos), Australia, China, India, Japan, New Zealand, South Korea, Russia and the U.S.
- The East Asia Summit is an annual meeting of national leaders from the East Asian region and adjoining countries. (established in the year 2005)
- EAS is an initiative of ASEAN and is based on the premise of the centrality of ASEAN. The EAS was formed to further the objectives of regional peace, security and prosperity.
- The host of the 2018 East Asian Summit is also the Chairperson of ASEAN, the Prime Minister of Singapore, Lee Hsien Loong.

India, Russia to build stealth frigates

IN NEWS:

- Goa Shipyard Ltd. signs ₹500 mn deal with Russia's Rosoboronexport to locally manufacture two stealth frigates with technology transfer.
- While the ships are built by Russia, the engines are supplied by Zorya Nashproekt of Ukraine.

IN DEPTH:

ABOUT STEALTH SHIP DEAL:

- In October 2016, India and Russia signed an **Inter-Governmental Agreement (IGA) for four Krivak or Talwar stealth frigates** — two to be procured directly from Russia and two to be built by GSL.
- Of late, GSL has maintained a good track record. It has delivered 28 ships ahead of schedule in the past four years.
- India recently signed a \$1 bn deal with Russia for direct purchase of two frigates. The basic structures of the two frigates are already ready at the Yantar shipyard in Russia and will be finished now.

STEALTH SHIP:

- A **stealth** ship is a ship which employs **stealth** technology construction techniques in an effort to ensure that it is harder to detect by one or more of radar, visual, sonar, and infrared methods.
- **Stealth technology** also termed **low observable technology (LO technology)** is a sub-discipline of military tactics and passive and also active electronic countermeasures, which cover a range of techniques used with personnel, aircraft, ships, submarines, missiles and satellites to make them less visible (ideally invisible) to radar, infrared, sonar and other detection methods.
- It corresponds to military camouflage for these parts of the electromagnetic spectrum (Multi-spectral camouflage).

30th Asia Pacific Economic Cooperation (APEC) Summit

IN NEWS:

- 30th Asia Pacific Economic Cooperation (APEC) Summit took place in Papua New Guinea.
- For the first time since its inception APEC has failed to release a joint communique due to lack of consensus among the members over trade and security issues.
- All 20 countries except China agreed to the joint statement.

IN DEPTH:

ASIA PACIFIC ECONOMIC FORUM:

- It was established in 1989 and has 21 members. (India is not a Member)
- APEC is the premier Asia-Pacific economic forum. Primary goal of APEC is to support sustainable economic growth and prosperity in the Asia-Pacific region.
- India has requested membership in APEC, and received initial support from the United States, Japan, Australia and Papua New Guinea. Officials have decided not to allow India to join as India does not border the Pacific Ocean, which all current members do.
- India was invited to be an observer for the first time in November 2011.

TROUBLE PREVAILING OVER BRI:

- US targeted China's Belt and Road Initiative (BRI) and called it as "constricting belt" and a "One-way Road".
- US also warned smaller countries to be cautious of "debt-trap" by China and said not to accept debt which compromise sovereignty.
- China defended BRI and said that there is no geo-political agenda behind it and it is not an exclusive club closed to non-members, nor is it a trap.
- China targeted US policy of "America First" and said that erecting barriers and cutting ties is a short-sighted approach doomed to fail.
- The U.S.-China discord at APEC highlighted the dangers of their trade war, trade war between the US and China could cripple the Pacific Rim economy.

Russia and Ukraine tensions**IN NEWS:**

- Russia has captured three Ukrainian naval ships and over 20 crew members in the disputed Azov Sea.
- This move has refocused international attention on the conflict on Europe's eastern corridors.
- Ukraine has declared martial law and demanded that the sailors be treated as prisoners of war.
- Ukraine insists that the patrol of the Kerch Strait, where the vessels were impounded, was authorised under a bilateral agreement with Moscow.
- The latest incident coincides with the anniversary of the November 2013 Maidan Square protests in Ukraine demanding integration with Europe, which was the prelude to Russia's invasion of Ukraine's Crimea in 2014.

IN DEPTH:**UKRAINE ISSUE:**

- The 2014-15 Minsk peace accords prohibited air strikes and heavy artillery firing.
- The Ukraine-Russia conflict has also widened religious schisms.

GENERAL STUDIES 3**ECONOMY****Reserve Bank to inject 40,000 crore through open market operations (OMOs)****In news:**

- RBI to pump in more liquidity in December by infusing 40,000 crore into the system through open market operations (OMOs).
- It has already infused 30,000 crore into the system while the balance 10,000 crore will be pumped in through auction.

About open market operations

- Open market operations are conducted by the RBI by way of sale or purchase of government securities (g-secs) to adjust money supply conditions.
- The central bank sells g-secs to suck out liquidity from the system and buys back g-secs to infuse liquidity into the system.
- These operations are often conducted on a day-to-day basis in a manner that balances inflation while helping banks continue to lend.
- The RBI uses OMO along with other monetary policy tools such as repo rate, cash reserve ratio and statutory liquidity ratio to adjust the quantum and price of money in the system.

Do you know?

- When RBI sells government security in the markets, the banks purchase them. When the banks purchase Government securities, they have a reduced ability to lend to the industrial houses or other commercial sectors. This reduced surplus cash, contracts the rupee liquidity and consequently credit creation / credit supply.
- When RBI purchases the securities, the commercial banks find them with more surplus cash and this would create more credit in the system. Thus, in the case of excess liquidity, RBI resorts to sale of G-secs to suck out rupee from system.
- Similarly, when there is a liquidity crunch in the economy, RBI buys securities from the market, thereby releasing liquidity.
- Its worth to note here that the market for government securities is not well developed in India but still OMO plays very important role.

AGRICULTURE

India steps up agro-diplomacy with China

IN NEWS:

- As the trade war with the United States continues to impact, China appears to be opening up to non-U.S. imports.
- India has stepped up its agro-diplomacy with China, as China would look first at its food security by diversifying imports in view of the trade war.
- India has started exporting soya bean, sugar, black tea, non-Basmati rice etc. after China has imposed more levy on U.S. imports.

Agriculture Ministry takes back report on impact of demonetization on farmers

IN NEWS:

Earlier, a report submitted by the Union Agriculture Ministry to the Parliamentary Standing Committee on Finance highlighted that

- Farmers were badly hit by demonetization, as many were unable to buy seeds without enough money.
- Demonetisation came at a time when farmers were engaged in either selling their Kharif crops or sowing the Rabi crops. Both these operations needed huge amounts of cash, which demonetisation removed from the market.
- Even bigger landlords faced a problem such as paying daily wages to the farmers and purchasing agriculture needs for growing crops.
- However, now, reversing its earlier report, the Union Agriculture Ministry has submitted a fresh report claiming that there was no “adverse impact.”

SCIENCE AND TECHNOLOGY

India to study drugs derived from marijuana

IN NEWS:

- Three major science administrators in India — the Council of Scientific and Industrial Research, the Indian Council for Medical Research and the Department of Biotechnology — are getting together **to promote research in herbal drugs**, some of which involve deriving new drugs from marijuana.
- Researchers to test whether strains of marijuana could be effective in the treatment of breast cancer, sickle-cell anaemia, among others.
- The studies into the therapeutic potential of marijuana is part of a larger governmental thrust to making new drugs derived from herbs and plants that find mention in Ayurvedic and other traditional-medicine knowledge systems.

MARIJUANA:

Marijuana—also called *weed*, *herb*, *pot*, *grass*, *bud*, *ganja*, *Mary Jane*, and a vast number of other slang terms—is a greenish-gray mixture of the dried flowers of *Cannabis sativa*. Some people smoke marijuana in hand-rolled cigarettes called *joints*; in pipes, water pipes (sometimes called *bongs*), or in *blunts* (marijuana rolled in cigar wraps).

Chandrayaan-2 lunar lander

IN NEWS:

- We have read that Indian Space Research Organisation (ISRO) has postponed Chandrayaan-2, India's second mission to moon to January 2019.
- Chandrayaan-2 is India's most challenging and India's second mission to Moon. It is advanced version of previous Chandrayaan-1 mission (launched in 2008) which only involved orbiting around moon, Chandrayaan-2 is much complicated mission as it involves an orbiter, lander and rover.

Lunar lander faces crucial test – Chandrayaan-2's landing sensors will be tested at a special site in Karnataka.

IN DEPTH:

LITMUS TEST:

The test on ground, called the **Lander Sensor Performance Test or LSPT**, will be conducted at ISRO's new R&D campus in **Chitradurga district, Karnataka**.

The lander is being developed and tested by the **U.R. Rao Satellite Centre in Bengaluru**.

Litmus test

The Chandrayaan-2 lander's sensors are all set to be tested at Challakere, Karnataka

HOW WILL SENSORS HELP THE LANDER?

- Assess height from the landing spot
- Decide speed of lander
- Help lander navigate boulders or uneven surfaces

SCALED-DOWN VERSION OF LANDER



For the test, sensors need to guide ISRO's small aircraft to a soft landing on an artificial lunar surface

NOV. 24, 2018: Test flight scheduled

JAN. 31, 2019: Targeted launch of rover and lander

FEB. 2019: Expected time lander and rover will reach the moon

NASA's Insight rover heads for 6.5 minutes of terror

IN NEWS:

NASA's Mars Insight spacecraft landed on Mars.

IN DEPTH:

INSIGHT SPACECRAFT:

- Mars Insight's goal is to listen for quakes and tremors as a way to unveil the Red Planet's inner mysteries, how it formed billions of years ago, and by extension, how other rocky planets like the earth took shape.
- The unmanned spacecraft, launched nearly seven months ago, is NASA's first to attempt to touch down on Mars since the Curiosity rover arrived in 2012.
- More than half of 43 attempts to reach Mars with rovers, orbiters and probes by space agencies from around the world have failed.
- NASA is the only space agency to have made it, and is invested in these missions as a way to prepare for the first Marsbound human explorers in the 2030s.
- The planet's core, mantle and crust will be explored allowing scientists to find out more about the formation of the rocky planets in our Solar System and measure its' tectonic activity.
- InSight will be the first mission to use a robotic arm to place instruments on the surface of Mars.
- InSight stands for Interior Exploration using Seismic Investigations, Geodesy and Heat Transport.
- The InSight Lander left Earth on May 5, 2018 and took almost 7-months to get to the Red Planet and finally landed on November 26, 2018.
- It marked the eighth successful landing on Mars in NASA's history.
- The spacecraft is NASA's first to touch down on the earth's neighbouring planet since the Curiosity rover arrived in 2012.
- More than half of 43 attempts to reach Mars with rovers, orbiters and probes by space agencies from around the world have failed.

HysIS – Hyper Spectral Imaging Satellite

IN NEWS:

- ISRO to launch its HysIS imaging satellite and 30 other satellites with PSLV-C43 rocket from the Satish Dhawan Space Centre in Sriharikota.
- Hyper Spectral Imaging Satellite (HysIS) – is India's own earth observation satellite
- The satellite will be put into a polar synchronous orbit, which sets it in motion along the axis that runs along the Earth's geographic North and South Pole.

IN DEPTH:**HYSIS MISSION:**

- HysIS mission is to study the earth's surface near infrared and shortwave infrared regions of the electromagnetic spectrum.
- To provide observations within the visible, near infrared and shortwave infrared bands of the electromagnetic spectrum
- To monitor atmospheric activity and climate change
- To assist studies of Earth's magnetic field
- These observations will have a host of applications, prime among which relate to agriculture, forestry, water management, and coastal patterns.
- HysIS will continue to make observations till 2023, when the mission ends.
- After this launch, the next big event for the Indian space organisation will be its awaited mission to the moon – Chandrayaan-2 – in early 2019.

About PSLV

- Polar Satellite Launch Vehicle (PSLV) was launched in October 1994, it is the third generation launch vehicle of India.
- It is the first Indian launched vehicle to be equipped with liquid stages.
- PSLV has emerged as a workhouse launch vehicle of India with 39 consecutively successful missions by June 2017.
- This vehicle has launched 48 Indian satellites for customers from abroad.
- It has also launched Chandrayaan-1 in 2008 and Mars Orbiter Spacecraft in 2013.

ENVIRONMENT

Make elephant corridors eco-sensitive zones: NGT

IN NEWS:

- National Green Tribunal (NGT) has asked the Ministry of Environment, Forests and Climate Change (MoEF&CC) to consider declaring all elephant corridors in India as eco-sensitive zones.

IN DEPTH:**ECO SENSITIVE ZONES:**

Eco-Sensitive Zones (ESZs) are areas notified by the Ministry of Environment, Forests and Climate Change (MoEF&CC), Government of India around Protected Areas, National Parks and Wildlife Sanctuaries.

- The purpose of declaring ESZs is to create some kind of "shock absorbers" to the protected areas by regulating and managing the activities around such areas.
- They also act as a transition zone from areas of high protection to areas involving lesser protection.
- The new ESZ guidelines include a broad list of activities that could be allowed, promoted, regulated or promoted.
- The guidelines said activities, including commercial mining, setting of saw mills and industries causing pollution, commercial use of firewood and major hydro-power projects, are prohibited in such areas.
- It also prohibits tourism activities like flying over protected areas in an aircraft or hot air balloon, and discharge of effluents and solid waste in natural water bodies or terrestrial areas.
- Felling of trees, drastic change in agriculture systems and commercial use of natural water resources, including groundwater harvesting and setting up of hotels and resorts, are the activities regulated in the areas.
- Activities permitted in the areas include ongoing agriculture and horticulture practices by local communities, rainwater harvesting, organic farming, adoption of green technology and use of renewable energy sources.
- The width of the ESZ and type of regulation may vary from protected area to area. However, as a general principle, the width of the ESZ could go up to 10 kms around the protected area.
- The rules for the ESZ or the Eco-Fragile Zones are based on the Environment Protection Act, 1986. However, the Environment (Protection) Act, 1986 does not mention the word "Eco-Sensitive Zones".
- The Act says that Central Government can restrict areas in which any industries, operations or processes or class of industries, operations or processes shall not be carried out or shall be carried out subject to certain safeguards.

Role of non-state actors and women's movement against the felling of trees in Jhinkargadi forest

IN NEWS:

- Odisha Chief Minister cancelled the setting up of a brewery plant in Dhenkanal district where hundreds of trees were felled despite strong protests by the villagers.
- The government took the decision following a massive public outcry against the felling of trees and maintaining the ecological balance.
- The brewery plant (102-crore project, which was to be set up by P&A Bottlers Private Limited) was to come up on 12 acres of forestland in Jhinkargadi.
- The movement is in same lines of Chipko movement, a non-violent agitation in 1973 that was aimed at protection and conservation of trees.



Wildlife and Bird Sanctuary in Point Calimere

IN NEWS:

- After Cyclone Gaja struck, the wildlife sanctuary looks like a deserted war zone, hundreds of birds have died, trees have been uprooted or their branches broken or defoliated.
- The Point Calimere sanctuary, covering 1728.81 hectares, is home to 564 flowering plants, 198 medicinal plants, 14 types of mammals, 18 reptiles and nine amphibians.

IN DEPTH:

ABOUT POINT CALIMERE:

- It is a protected area in Tamil Nadu.
- The flagship species of the sanctuary is the near threatened blackbuck antelope, one of the four antelope species in India (Chinkara, Chausingha and Nilgai being the other three) and the most numerous large animal in the sanctuary.
- This site has recorded the second largest congregation of migratory waterbirds in India, with a peak population in excess of 100,000, representing 103 species.
- Great flamingo, Painted Stork, Little Stint, Seagull and Brown-headed gull are normally found in the sanctuary.

Virtual climate summit

IN NEWS:

- World leaders to participate in an innovative climate change summit that will take place entirely online so it is carbon neutral.
- The Virtual Climate Summit is the brainchild of Marshall Islands President Hilda Heine, whose low-lying Pacific island nation will drown beneath rising seas if global warming continues unabated.
- It will be the first global political meeting to be held online.
- The virtual summit's main aim is to encourage the international community to keep global warming to 1.5 degrees Celsius above pre-industrial levels.
- The latest round of UN climate talks, COP24, will open in the southern Polish city of Katowice on December 2 with the aim of reinvigorating the Paris agreement.

Atmosphere and Climate Research-Modelling Observing Systems & Services (ACROSS) and National Facility for Airborne Research (NFAR)

IN NEWS:

- The Government has approved continuation of the nine sub-schemes of the umbrella scheme “Atmosphere & Climate Research-Modelling Observing Systems & Services (ACROSS)” during 2017-2020.
- The scheme will be implemented by the Ministry of Earth Sciences.

IN DEPTH:

ACROSS SCHEME:

- ACROSS scheme pertains to the atmospheric science programs of the Ministry of Earth Sciences (MoES) and addresses different aspects of weather and climate services, which includes warnings for cyclone, storm surges, heat waves, thunderstorms etc.
- The ACROSS scheme consists of nine sub-programmes which are multi disciplinary and multi institutional in nature and will be implemented in an integrated manner through IMD, HIM, NCMRWF and INCOIS.

IMPACT : The scheme will provide

- improved weather
- climate and ocean forecast and services

thereby ensuring transfer of commensurate benefits to the various services like

- Public weather service
- disaster management,
- Agro-meteorological Services,
- Aviation services,
- Environmental monitoring services,
- Hydro-meteorological services,
- climate services,
- tourism,
- pilgrimage,
- power generation,
- water management,
- Sports & adventure etc.

Generating employment opportunities:

- A sizable number of scientific and technical staff along with requisite administrative support, thereby generating employment.
- To ensure last-mile connectivity of the weather based services to the end -user, a large number of agencies like the Krishi Vigyana Kendras of Indian Council of Agricultural Research, Universities and local municipalities are roped in thus generating employment opportunities to many people.

NATIONAL FACILITY FOR AIRBORNE RESEARCH:

- Government has also approved establishment of **National Facility for Airborne Research (NFAR)**.
- The scheme will provide improved weather, climate and ocean forecast and services, thereby ensuring transfer of commensurate benefits to the various services like Public weather service, disaster management, Agro-meteorological Services, Aviation services, Environmental monitoring services, Hydro-meteorological services, climate services, tourism, pilgrimage, power generation, water management, Sports & adventure etc.

Tiger Reserves/National Parks in news**IN DEPTH:****Dudhwa Tiger Reserve**

- Dudhwa Tiger Reserve is a protected area in Uttar Pradesh.
- It comprises the Dudhwa National Park, Kishanpur Wildlife Sanctuary and Katarniaghat Wildlife Sanctuary.
- The protected area is home for tigers, leopards, Asiatic black bears, sloth bears, Swamp deer, rhinoceros, elephants, cheetal, hog deer, barking deer, sambar, wild boar and hispid hare.
- It shares the north-eastern boundary with Nepal and hence Dudhwa Tiger Reserve and border security agency Sashastra Seema Bal have joined hands to provide security to Dudhwa forests and its rich wildlife.

Bhitarkanika National Park

- Bhitarkanika National Park : Odisha
- The Bhitarkanika National Park is one of the largest habitats of endangered estuarine crocodiles in the country .
- It is a prominent heronry (breeding ground for migratory birds) of the State.

About Saltwater crocodile

- The saltwater crocodile, also known as the estuarine crocodile, is the largest of all living reptiles, as well as the largest riparian predator in the world.
- As its name implies, this species of crocodile can live in marine environments, but usually resides in saline and brackish mangrove swamps, estuaries, deltas, lagoons, and lower stretches of rivers. They have the broadest distribution of any modern crocodile, ranging from the eastern coast of India throughout most of Southeast Asia and northern Australia.
- IUCN status: Least Concerned

Andaman & Nicobar Islands: home to a tenth of India's fauna species**IN NEWS:**

- Andaman & Nicobar Islands, which comprises only 0.25% of country's geographical area, has 11,009 species, according to a publication by the Zoological Survey of India.
- Zoological Survey of India (ZSI) has for the first time come up with a database of all faunal species found on the island, putting the number at 11,009.
- ZSI report highlighted that – tourism, illegal construction and mining are posing a threat to the islands' biodiversity, which is already vulnerable to volatile climatic factors.

IN DEPTH:**ANALYSIS OF REPORT:**

- The **Narcondam hornbill**, its habitat restricted to a lone island; the **Nicobar megapode**, a bird that builds nests on the ground; the **Nicobar treeshrew**, a small mole-like mammal; the **Long-tailed Nicobar macaque**, and the **Andaman day gecko**, are among the 1,067 endemic faunal species found only on the Andaman and Nicobar Islands and nowhere else.
- The population of the islands, which includes six particularly vulnerable tribal groups (PVTGs) — Great Andamanese, Onge, Jarawa, Sentinelese, Nicobarese and Shompens — is not more than 4 lakh.
- In a recent development, the Government of India relaxed the Restricted Area Permit (RAP) norms for some foreign nationalities notified under the Foreigners (Restricted Areas) Order, 1963, to visit 29 of its inhabited islands, till December 31, 2022. This has triggered further concerns of increased anthropogenic pressures over the islands' ecosystem.
- Of the ten species of marine fauna found on the islands, the **dugong/sea cow**, and the **Indo-Pacific humpback dolphin**, are both classified as **Vulnerable** under the IUCN (International Union for Conservation of Nature) Red List of Threatened Species.
- Among the 46 terrestrial mammalian species found, three species have been categorised as Critically Endangered — **Andaman shrew** (*Crociodura andamanensis*), **Jenkin's shrew** (*C. jenkinsi*) and **Nicobar shrew** (*C. nicobarica*). Five species are listed as Endangered, nine species as Vulnerable, and one species as Near Threatened, according to the IUCN.
- Among birds, endemism is quite high, with 36 among 344 species of birds found only on the islands. Many of these bird species are placed in the IUCN Red List of threatened species under the Wildlife Protection Act (WPA).
- Another unique feature of the islands' ecosystem is its marine faunal diversity, which includes coral reefs and its associated fauna. In all, 555 species of scleractinian corals (hard or stony corals) are found in the island ecosystem, all which are placed under Schedule I of the WPA.

Lancet report warns about heatwave exposure surge

IN NEWS:

- Indians faced almost 60 mn heatwave exposure events in 2016, according to Lancet report.
- It recommended Indian policy makers to take a series of initiatives to mitigate the increased risks to health, and the loss of labour hours due to a surge in exposure to heatwave events.
- Report has placed India amongst the countries who most experience high social and economic costs from climate change.

IN DEPTH:

- Heatwaves are associated with increased rates of heat stress and heat stroke, worsening heart failure and acute kidney injury from dehydration.
- From 2014-2017, the average length of heatwaves in India ranged from 3-4 days compared to the global average of 0.8-1.8 days.
- Indians were exposed to almost 60 million heatwave exposure events in 2016, a jump of about 40 million from 2012.
- The agriculture sector was more vulnerable compared to the industrial and service sectors because workers there were more likely to be exposed to heat.

LANCET REPORT RECOMMENDATION:

- identifying “heat hot-spots” through appropriate tracking of meteorological data
- promoting timely development and implementation of “local Heat Action Plans” with strategic inter-agency co-ordination
- timely response which targets the most vulnerable groups
- urges a review of existing occupational health standards, labour laws and sectoral regulations for worker safety in relation to climatic conditions.

What is Heat Wave?

- A heat wave is a prolonged period of excessively hot weather, which may be accompanied by high humidity, especially in the west coasts of the middle latitude continents.
- A heat wave is measured relative to the usual weather in the area and relative to normal temperatures for the season. Temperatures that people from a hotter climate consider normal can be termed a heat wave in a cooler area if they are outside the normal climate pattern for that area.

How does it occur?

- Heat waves are most common in summer when high pressure develops across an area. High pressure systems are slow moving and can persist over an area for a prolonged period of time such as days or weeks.

Consequences of Heat Wave

- Severe heat waves have caused catastrophic crop failures, thousands of deaths from hyperthermia, and widespread power outages due to increased use of air conditioning. A heat wave is considered extreme weather, and a danger because heat and sunlight may overheat the human body

DISASTER MANAGEMENT

National Cyclone Risk Mitigation Project (NCRMP)

IN NEWS:

- NCRMP was started by the Ministry of Home Affairs to mitigate vulnerability to the cyclone and hazards prone coastal communities.
- After the formation of National Disaster Management Authority (NDMA), management of the project was transferred to NDMA in September, 2006.

IN DEPTH:

NATIONAL CYCLONE RISK MITIGATION PROJECT:

- NCRMP-I covers States of Andhra Pradesh and Odisha.
- NCRMP-II covers States of Gujarat, Maharashtra, Goa, Karnataka, Kerala, and West Bengal.
- The project is implemented by the Ministry of Home Affairs through National Disaster Management Authority (NDMA) and executed by the respective State Disaster Management Authorities at the State level.
- The project is partly funded by the World Bank.

Objectives : The overall objective of the National Cyclone Risk Mitigation Project (‘NCRMP’) is to minimize vulnerability to cyclones and make people and infrastructure disaster resilient in harmony with conservation of the coastal eco-system in the cyclone hazard prone States and Union Territories of India.

Regional Integrated Multi-Hazard Early Warning System (RIMES)

IN NEWS:

- Regional Integrated Multi-Hazard Early Warning System (RIMES) for Africa and Asia, a 45-nation international organisation on disaster warning, has termed 'Titli', the severe cyclonic storm that devastated Odisha in October, as 'rarest cyclone'.
- The UN-registered organisation said: Considering the history of cyclone tracks, no synthetic track projection captures the Titli type of cyclones. The forecast information available lacks actionable early warning information such as no indication of occurrence of secondary hazards, including landslides far away from the coasts.
- The RIMES has recommended that a detailed risk assessment has to be carried out for Odisha to understand the risks in the light of the Titli devastation.

IN DEPTH:

REGIONAL INTEGRATED MULTI HAZARD EARLY WARNING SYSTEM:

- The RIMES is an intergovernmental body registered under United Nations.
- It was established registered with UN in 2009.
- It is owned and managed by 45 collaborating countries in Asia Pacific and Africa Region.
- India is chairman of the body.
- It operates from its regional early warning centre located at campus of Asian Institute of Technology in Pathumthani, Thailand.
- It has evolved from efforts of countries in Africa and Asia in aftermath of 2004 Indian Ocean tsunami.

PURPOSE OF RIMES:

- Hazard monitoring, detection, analysis, prediction, and forecasting
- Risk assessment
- Potential impact analysis
- Generation of tailored risk information at different time scales
- Risk communication
- Application of tailored risk information in decision-making

INTERNAL SECURITY

Jammu and Kashmir Governor dissolved the State Assembly

IN NEWS:

- Jammu and Kashmir Governor passed an order in exercise of the powers conferred upon him by Section 53 of the Constitution of Jammu and Kashmir to dissolve the Legislative Assembly.
- Powers invoked by the Governor on the basis of the Constitution of Jammu and Kashmir

IN DEPTH:

ARTICLES INVOLVED:

- Section 92 has provisions in case of failure of constitutional machinery in the State
 - Section 53(2)(b) provides for the dissolution of the Assembly
- Powers of Governor of other States (i.e., except Jammu and Kashmir)

PROCEDURE INVOLVED:

- Governor can dissolve the legislative assembly if the chief minister advises him to do following a vote of no confidence. Now, it is up to the Governor what he/she would like to do.
- Governor, on his/her discretion can recommend the president about the failure of the constitutional machinery in the state.
- If there is NO political party with a clear cut majority in the assembly, Governor on his/her discretion can appoint anybody as chief minister.

India, Pak. commit to Kartarpur corridor

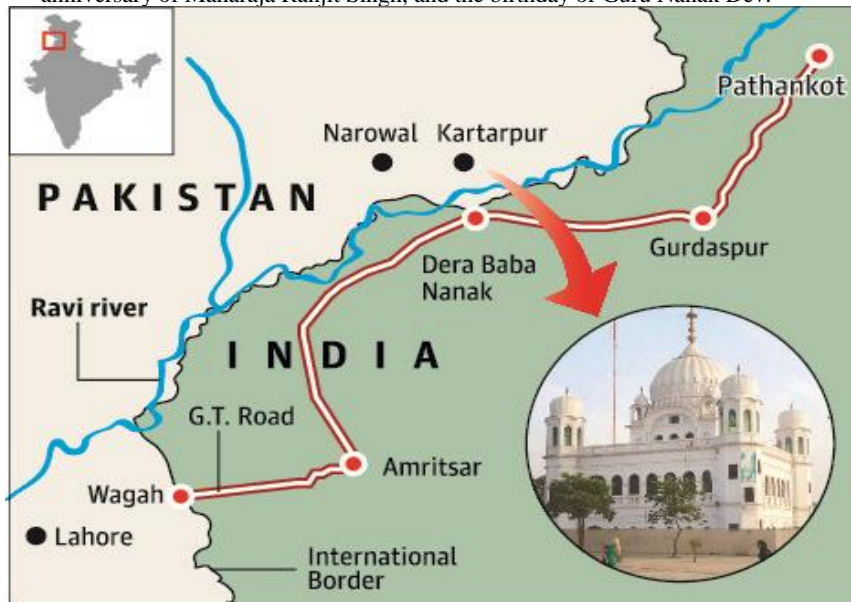
IN NEWS:

- India and Pakistan agreed to build the **Kartarpur Sahib corridor** for Sikh pilgrims to visit the Gurdwara in Kartarpur (Pakistan)
- Both the countries exchanged letters committing to build the required infrastructure for **visa-free direct travel by Sikh pilgrims to Pakistan's Kartarpur Sahib gurdwara.**
- November 2019 marks 550th birth anniversary of Guru Nanak Dev

IN DEPTH:

GURUDWARA

- India had first proposed the Kartarpur Sahib corridor in 1999 when the then Prime Minister Atal Bihari Vajpayee took a bus ride to Lahore.
- **Gurdwara in Kartarpur**
- The gurdwara in Kartarpur is located on the bank of river Ravi in Pakistan
- It is about four km from the Dera Baba Nanak shrine, and about 120 km northeast of Lahore
- It was here that Guru Nanak assembled a Sikh community and lived for 18 years until his death in 1539
- The shrine is visible from the Indian side, as Pakistani authorities generally trim the elephant grass that would otherwise obstruct the view
- Indian Sikhs gather in large numbers for darshan from the Indian side, and binoculars are installed at Gurdwara Dera Baba Nanak
- The gurdwara was opened to pilgrims after repairs and restoration in 1999, and Sikh jathas have been visiting the shrine regularly ever since
- Sikh jathas from India travel to Pakistan on four occasions every year- for Baishakhi, the martyrdom day of Guru Arjan Dev, the death anniversary of Maharaja Ranjit Singh, and the birthday of Guru Nanak Dev.



Big leap in intelligence infrastructure post 26/11

IN NEWS:

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

IN DEPTH:

DETAILED DATA:

- As per the **International Telecom Union (ITU), Geneva**, the State is periodically obtaining a Global Cell Identity (GCI) and Location Area Identity (LAI) from the Telecom Service Providers (TSPs).
- The successful implementation of the CMS with inclusion of the GCI, LAI and location in the Call Data Record (CDR) has enhanced the intelligence collection abilities of the State in the past few years.
- Implementations of the CMS and LIM have helped agencies get full data without any hindrances from TSPs.

- **The R.D. Pradhan Expert Committee**, which probed lapses leading up to the November 26, 2008 terror strikes, had revealed that prior to the attacks, senior officers in the Maharashtra government did not even look at crucial intelligence inputs.

26/11 ATTACKS

-The 2008 Mumbai attacks (also referred to as 26/11) were a series of 12 coordinated shooting and bombing attacks lasting four days across Mumbai, perpetrated by 10 members of Lashkar-e-Taiba, an Islamic terrorist organisation based in Pakistan.