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General Studies-1

75th Anniversary of Formation of Azad Hind Government

Prime Minister, Shri Narendra Modi, today, hoisted the National Flag at Red Fort, to commemorate the 75th Anniversary of formation of Azad Hind Government, formed by Netaji Subhas Chandra Bose.

About INA

- The **Indian National Army (INA)**; Azad Hind Fauj; lit.: Free Indian Army) was an armed force formed by Indian nationalists in 1942 in [Southeast Asia](#) during [World War II](#).
- Its aim was to secure [Indian independence](#) from [British rule](#). It formed an alliance with [Imperial Japan](#) in the latter's campaign in the [Southeast Asian theatre of WWII](#).
- The army was [first formed](#) in 1942 under [Mohan Singh](#), by Indian PoWs of the [British-Indian Army](#) captured by Japan in the [Malayan campaign](#) and [at Singapore](#).
- This first INA collapsed and was disbanded in December that year after differences between the INA leadership and the Japanese military over its role in Japan's war in Asia.
- It was revived under the leadership of Subhash Chandra Bose after his arrival in Southeast Asia in 1943.

Rashtriya Ekta Diwas

Why in News?

Arrangements are in full swing to celebrate the Rashtriya Ekta Diwas on 31st October, 2018, the birthday of Sardar Vallabhbhai Patel.

About Rashtriya Ekta Diwas:

- **Rashtriya Ekta Diwas (National Unity Day)** was introduced by the [Government of India](#) and inaugurated by Indian [Prime Minister Narendra Modi](#) in 2014.
- The intent is to pay tribute to [Vallabhbhai Patel](#), who was instrumental in keeping India united.
- It is to be celebrated on 31 October every year as annual commemoration of the birthday of the Iron Man of India [Sardar Vallabhbhai Patel](#), one of the founding leaders of [Republic of India](#).



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- National Unity Day "will provide an opportunity to re-affirm the inherent strength and resilience of our nation to withstand the actual and potential threats to the unity, integrity and security of our country.

Role Of Sardar Patel:

- National Unity Day celebrates the birthday of Patel because, during his term as [Home Minister of India](#), he is credited for the integration of over 550 independent [princely states](#) into India from 1947-49 by Independence Act (1947).
- He is known as the "[Bismarck\[a\]](#) of India".
- The celebration is complemented with the speech of Prime Minister of India followed by the "Run for Unity".

Monsoon and Hurricanes:

Why in News?

Strong monsoons in the Indian Ocean can induce easterly winds that push Atlantic Ocean hurricanes westward, increasing the likelihood they will make landfall in the Americas, according to a study.

Observations Made:

- The study, published in the journal Geophysical Research Letters, found that in years where summer rainstorms in India are stronger, Atlantic hurricanes move further westward towards land.
- In years where the rains are not as strong, hurricanes tend to curve northward earlier and fizzle out in the north Atlantic Ocean.

What is the relation between two?

- Strong monsoons influence hurricane steering by enhancing the effects of the North Atlantic subtropical high, a centre of high atmospheric pressure in the Atlantic Ocean.
- When the subtropical high increases, stronger winds come from the east and push hurricanes westward.
- La Nina and the Indian monsoon are correlated, but the strength of the monsoon influences the steering of hurricanes independently of La Nina fluctuations, which are responsible for changes in hurricane frequency.



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- La Nina fluctuations may result in more Atlantic hurricanes, but strong Indian monsoons steer them further westward, making it more likely they will make landfall in the Americas, researchers said.

Advantages of New Findings:

The newly-discovered relationship could help scientists better predict the path of oncoming hurricanes, especially in late summer months like September, when Atlantic hurricane activity peaks, according to researchers.

International Arya Mahasammelan-2018

Why in News?

The President of India, Shri Ram Nath Kovind, inaugurated the International Arya Mahasammelan – 2018 today (October 25, 2018) in Delhi.

The President was happy to note that this Mahasammelan will discuss on the issues such as prevention of superstition, modernization, women empowerment, tribal welfare, and management of natural calamities.

About Arya Samaj:

- **Arya Samaj** is an [Indian Hindu reform movement](#) that promotes values and practices based on the belief in the infallible authority of the [Vedas](#).
- The samaj was founded by the [sannyasi](#) (ascetic) [Dayanand Saraswati](#) on 10 April 1875.
- Members of the Arya Samaj believe in one God and reject the worship of idols.

About Dayanand Saraswati:

- **Dayanand Saraswati** (12 February 1824 – 30 October 1883) was an Indian religious leader and founder of the [Arya Samaj](#), a [Hindu reform movement](#) of the [Vedic dharma](#).
- He was also a renowned scholar of the Vedic lore and [Sanskrit](#) language. He was the first to give the call for [Swaraj](#) as "India for Indians" in 1876, a call later taken up by [Lokmanya Tilak](#).
- Denouncing the [idolatry](#) and ritualistic worship prevalent in [Hinduism](#) at the time, he worked towards reviving [Vedic](#) ideologies.
- Subsequently, the [philosopher](#) and [President of India](#), [S. Radhakrishnan](#) called him one of the "makers of Modern India", as did [Sri Aurobindo](#)

Statue of Unity



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Why in News?

Prime Minister Narendra Modi unveiled the 'Statue of Unity' in Gujarat on the birth anniversary of Sardar Vallabhbhai Patel today.

Salient Features:

- **Height:** 182 metres. This makes the statue almost twice the height of the iconic Statue of Liberty in New York.
- **Location:** Around 3.5 km downstream from the Sardar Sarovar Dam, on islet Sadhu Bet on the bed of the river Narmada.
- **Cost:** ₹2,989 crore (approx)
- **Sculptor:** Padma Bhushan Ram V. Suthar, a 93-year-old acclaimed sculptor who graduated from the prestigious J.J School of Art in Bombay. He has sculpted masterpieces including that of Mother Chambal at Gandhi Sagar Dam in Madhya Pradesh, equestrian statue of Maharaja Ranjit Singh in Amritsar, and numerous statues of Mahatma Gandhi.
- **Specialities:** The statue is slender most at the base, which goes against the norms of what other tall statues have followed. The walking pose also opened up a gap of 6.4 metres between the two feet which then had to be tested to withstand wind velocity, says L&T.
- Engineered to withstand wind speeds of up to 50 m per second (almost 180 km per hour wind speed)
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- The viewing gallery at the height of 135 metres can accommodate up to 200 people at a time.

About Sardar Vallabhai Patel:

- Sardar Patel is credited with uniting all 562 princely states in pre-independent India to build the Republic of India — hence the name of the statue.
- The date for the inauguration of the statue (October 31, 2018) also marks the 143rd birth anniversary of Sardar Patel.

Role in the Indian National Movement:

In 1918, he led a massive “No Tax Campaign” that urged the farmers not to pay taxes after the British insisted on tax after the floods in Kaira.



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The peaceful movement forced the British authorities to return the land taken away from the farmers. His effort to bring together the farmers of his area brought him the title of 'Sardar'.

- He actively supported the non-cooperation Movement launched by Gandhi. Patel toured the nation with him, recruited 300,000 members and helped collect over Rs. 1.5 million.
- In 1928, the farmers of Bardoli again faced a problem of "tax-hike". After prolonged summons, when the farmers refused to pay the extra tax, the government seized their lands in retaliation. The agitation took on for more than six months. After several rounds of negotiations by Patel, the lands were returned to farmers after a deal was struck between the government and farmers' representatives.
- In 1930, Sardar Vallabhbhai Patel was among the leaders imprisoned for participating in the famous Salt Satyagraha movement initiated by Mahatma Gandhi.

Sardar Patel was freed in 1931, following an agreement signed between Mahatma Gandhi and Lord Irwin, the then Viceroy of India. The treaty was popularly known as the Gandhi-Irwin Pact. The same year, Patel was elected as the President of Indian National Congress in its Karachi session where the party deliberated its future path.



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NITI Lecture Series

NITI Aayog is organizing the fourth edition of NITI Lecture Series at Vigyan Bhawan, New Delhi on 22.10.2018 which will focus on AI/

AI & NITI

- Artificial intelligence is the use of computers to simulate human intelligence.
- AI amplifies our cognitive abilities — letting us solve problems where the complexity is too great, the information is incomplete, or the details are too subtle and require expert training.
- Union Budget-2018 mandated NITI Aayog to come up with a national programme on employing Artificial Intelligence towards national development. NITI has, since, published a National Strategy for Artificial Intelligence.
- National Strategy lays down the vision of India for evolving a robust ecosystem for AI research and adoption.
- The Strategy is termed #AIForAll as it is focused on leveraging AI for inclusive growth in line with the Government policy of Sabka Saath, Sabka Vikas.

About NITI Lecture Series:

The 'NITI Lectures: Transforming India' was inaugurated by the Prime Minister Shri Narendra Modi on August 26, 2016 and since been held annually, featuring eminent speakers from across the world.

- The first key note address – 'India and the Global Economy' - was delivered by the Deputy Prime Minister of Singapore, Shri Tharman Shanmugaratnam.
- Bill Gates, Co-Founder, Bill and Melinda Gates Foundation delivered the Second lecture in the high-powered lecture series on 'Technology and Transformation' on the November 16, 2016 and
- Dr. Michael Porter, the Bishop William Lawrence University Professor at Harvard Business School, delivered the Third Transforming India Lecture, titled 'Competitiveness of Nations and States: New Insights'.

Through the lectures, NITI Aayog has been bringing policy makers, academics, experts and administrators of global repute to India.

The aim of the series is to enable learning, both at the Centre & States, from successful development practice world over.

Sabarimala Judgement:



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Why in News?

The Supreme Court on Tuesday fixed the date for [hearing the review petitions](#) against its September 28 majority judgment allowing women of all ages entry into the hill shrine at Sabarimala in Kerala, on November 13, 2018.

On Monday, Chief Justice of India Ranjan Gogoi said the date would be fixed for a hearing on a mentioning made by the National Ayyappa Devotees Association.

Basis of Petition:

The petitions argued that 'reform' does not mean rendering a religious practice out of existence on the basis of a PIL petition filed by "third parties" who do not believe in the Sabarimala deity.

Background:

- A Constitution Bench of the court, [in the 4:1 majority judgment](#), upheld the 12-year-old PIL plea filed by the Indian Young Lawyers Association challenging the prohibition of women aged between 10 and 50 from [undertaking the pilgrimage](#) to the temple.
- The Bench found that a restriction on women solely based on her menstrual status was a smear on her individual dignity.
- It was like "treating women as the children of a lesser God is to blink at the Constitution." It was a "form of untouchability" abolished decades ago.
- The ban on women was derogatory to equal citizenship. The right to practise religion should yield to the right of dignity of women aged between 10 and 50.

Provisions for Review Petition

- In [India](#), a binding decision of the [Supreme Court/High Court](#) can be reviewed in **Review Petition**.
- [Article 137](#) of the [Constitution](#) provides that subject to provisions of any law and rule made under [Article 145](#) the [Supreme Court of India](#) has the power to review any judgement pronounced (or order made) by it.
- Under Supreme Court Rules, 1966 such a petition needs to be filed within 30 days from the date of judgement or order.
- It is also recommended that the petition should be circulated without oral arguments to the same bench of judges that delivered the judgement (or order) sought to be reviewed.



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- Furthermore, even after dismissal of a review petition, the [SC](#) may consider a [curative petition](#) in order to prevent abuse of its process and to cure gross [miscarriage of justice](#).

Election Commission Of India:

In a major step months before the General Elections, the Supreme Court on Tuesday found ambiguity in the appointment process of [Election](#) Commissioners and referred the question to a Constitution Bench for a “close look.”

The order passed by a Bench of Chief Justice of India Ranjan Gogoi and Justice S.K. Kaul came on a PIL filed by Anoop Baranwal seeking an “independent mechanism for appointment of ECs” outside the exclusive power of the government.

Lacunae in Appoinment:

- Appointments of ECs should be made under a “collegium system.
- The appointment process of ECs should be in tandem with that of other top constitutional functionaries.
- There is a “gap in the law” as far as appointment of ECs are concerned.
- The appointments were made by the President solely on the basis of the advice given by the political-executive at the Centre. This situation allegedly gives “ample room for the ruling party to choose someone whose loyalty is ensured and renders the selection process vulnerable to manipulations and partisanship which is violative of Article 14 of the Constitution.”
- It is necessary to “plug the gap to ensure the independence and dignity of the institution.”

Early Observation by SC:

- The [Supreme Court](#) had told the government that though so far the election commissioners appointed have been “outstanding people, very fair and politically neutral,” there is still a legitimate expectation that they should be selected through the “most transparent and just process” formalised in a law enacted by the Parliament.
- The Election Commissioners supervise and hold elections in our democracy... such is the significance of their office. Their selection has to be made in the most transparent manner,” the Supreme Court had observed in the 2017 hearing.



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- The court had indicated to the government that it may intervene in the issue to achieve the constitutional objective under Article 324 (2) of the Constitution.

INF Treaty

Why in News?

U.S. President Donald Trump has announced that he would “terminate” the INF Treaty in response to a long-running dispute over Russian noncompliance with the treaty.

What’s the issue?

The United States first alleged in its July 2014 Compliance Report that Russia is in violation of its INF Treaty obligations “not to possess, produce, or flight-test” a ground-launched cruise missile having a range of 500 to 5,500 kilometers or “to possess or produce launchers of such missiles.”

Subsequent State Department assessments in 2015, 2016, and 2017 repeated these allegations. Russia denies that it is in violation of the agreement.

On December 8, 2017, the Trump administration released a strategy to counter alleged Russian violations of the Treaty.

About the Intermediate- Range Nuclear Forces (INF) Treaty:

The 1987 Intermediate-Range Nuclear Forces (INF) Treaty required the United States and the Soviet Union to eliminate and permanently forswear all of their nuclear and conventional ground-launched ballistic and cruise missiles with ranges of 500 to 5,500 kilometers.

- The treaty marked the first time the superpowers had agreed to reduce their nuclear arsenals, eliminate an entire category of nuclear weapons, and utilize extensive on-site inspections for verification. As a result of the INF Treaty, the United States and the Soviet Union destroyed a total of 2,692 short-, medium-, and intermediate-range missiles by the treaty’s implementation deadline of June 1, 1991.
- Despite its name, the INF Treaty covers all types of ground-launched cruise and ballistic missiles — whether their payload is conventional or nuclear. Moscow and Washington are prohibited from deploying these missiles anywhere in the world, not just in Europe. However, the treaty applies only to ground-launched



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systems. Both sides are free to deploy air- and sea-launched missiles within the 500-to-5,500-kilometer range.

Drought Resistance of India:

A study was carried out in India to assess the resilience of terrestrial ecosystem to drought at the district and State level.

Observations Made:

- Based on data from 2000 to 2014, only 241 of 634 (about 38%) districts were found to be resilient to drought or dry conditions.
- The remaining 62% of districts were non-resilient to varying degrees — slight (180 districts), moderate (80 districts) and severe (133 districts).
- While the resilient districts covered nearly 32% of the area of India, the remaining 68% was non-resilient, with the severely non-resilient districts alone covering nearly 30% of India. And only 10 of the 29 States and Union Territories had more than 50% resilient area.
- In general, districts with predominant forest cover had better resilience than those districts were cropland dominated.
- Despite the dense forest cover in the Western Ghats, Kerala had only about 19% resilience while Sikkim had 100%. At 17%, Karnataka had even lesser resilience than Kerala. “Solar radiation has much more controlling factor in the Western Ghats.
- Also, the evapotranspiration is higher in the Western Ghats than in northeast.
- In general, States in the lower Himalayan regions had higher resilient areas.

Public Interest Litigation:

Chief Justice of India Ranjan Gogoi on Tuesday said public interest litigation (PIL) petitions was not a cure for all ailments in the country.

The court had limitations. Some PILs even wasted precious judicial time, he said.

What is PIL?

- **Public Interest Litigation** is directly filed by an individual or group of people in the [Supreme Court of India](#) and High Courts of India and judicial member.
- It was felt that their interests are undermined by the government .
- In such a situation, the court directly accepts the public good.



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- It is a new legal horizon in which court of law can initiate and enforce action to serve and secure significant Public Interest Litigation.

Importance of PIL

- Public interest litigation gives a wider description to the right to equality, life and personality which is guaranteed under part III of the Constitution of India.
- It has introduced some kinds of reliefs or remedies under the writ jurisdiction.
- It also functions as an effective instrument for changes in the society or social welfare.
- Through public interest litigation, any public or person can seek remedy on behalf of the oppressed class by introducing a PIL.

“Main Nahin Hum” Portal and App

The Prime Minister, Shri Narendra Modi, will interact with IT and electronic manufacturing professionals across India on October 24, 2018, on the occasion of the launch of the “Main Nahin Hum” Portal and App.

About The Portal:

The portal, which works on the theme “Self4Society”, will enable IT professionals and organizations to bring together their efforts towards social causes, and service to society, on one platform.

In doing so, the portal is expected to help catalyse greater collaboration towards the service of the weaker sections of society, especially by leveraging the benefits of technology.

It is also expected to generate wider participation of interested people who are motivated to work for the benefit of society.

Benami Transaction (Prohibition) Act?

The government Wednesday approved setting up of Appellate Tribunal and Adjudicating Authority for speedy disposal of cases related to benami transactions.

Benefits of Adjudicating Authority:



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- The approval will result in effective and better administration of cases referred to the Adjudicating Authority and speedy disposal of appeals filed against the order of the Adjudicating Authority before the Appellate Tribunal.
- The appointment of the Adjudicating Authority, it added, would provide first stage review of administrative action under the the Prohibition of Benami Property Transactions Act (PBPT) Act.
- Establishment of the proposed Appellate Tribunal would provide an appellate mechanism for the order passed by the Adjudicating Authority under the PBPT Act.

What is Benami Transaction (Prohibition) Act?

- Benami transaction refers transactions made in a fictitious name, or the owner is not aware of the ownership of the property, or the person paying for the property is not traceable
- The rules and all the provisions of the Benami Transactions (Prohibition) Act came into force on November 1, 2016.
- After coming into effect, the existing Benami Transactions (Prohibition) Act, 1988, was renamed as the Prohibition of Benami Property Transactions Act, 1988.

Salient Features of Act:

- The act provides for establishment of an Adjudicating Authority by the Central Government. It shall be consisting of a Chairperson and at least two other members. A person who has been member of Income Tax or Revenue Service only can become member or chairperson of adjudicating authority. The case shall be decided in a year's time, once it is referred by the initiator to the adjudicating authority
- Appeals against the adjudicating authority's decision can be taken to the Appellate Tribunal at New Delhi.
- Once an order is finalized, the Benami properties will be confiscated. The designated officers appointed from among the income-tax officers will manage and disposed-off these properties.
- Benamidar or any person who abets other person to enter into such transactions will face rigorous imprisonment ranging from one to seven years in jail. The person may also be liable to pay a fine of upto 25% of the fair market value of such Benami property.

Commonwealth Association for Public Administration and Management Award



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Why in News?

India wins Commonwealth Association for Public Administration and Management Award, 2018.

About CAPAM:

- It is a non-profit association representing an international network of over 1100 senior public servants, Heads of Government, leading academics and researchers located in over 50 different countries across the Commonwealth.
- The association is guided by international leaders who believe in the value of networking, knowledge exchange and the promotion of good governance for the betterment of citizens in the Commonwealth countries.
- CAPAM has been announcing its International Innovations Awards (IIA) Programme bi-annually, since 1998.
- The CAPAM Awards celebrate the spirit of innovation in the public service by recognizing organizations that have made significant contributions to improve governance and services in the public sector.

Citizenship (Amendment) Bill, 2016

Why in News?

The Union Home Ministry has empowered the Collectors of certain districts in seven States to accept online applications to grant citizenship to “persecuted minorities” from Pakistan, Afghanistan and Bangladesh living in India.

Background:

A parliamentary committee has been examining the Citizenship (Amendment) Bill, 2016, which proposes to grant citizenship to six persecuted minorities: Hindus, Jains, Sikhs, Parsis, Christians and Buddhists who came to India from Pakistan, Afghanistan and Bangladesh before 2014.

Details of Powers given:

- Home Ministry gave powers to the Collectors in Chhattisgarh, Gujarat, Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh and Delhi to grant citizenship and naturalisation certificates to the migrants under Sections 5 and 6 of the Citizenship Act, 1955.
- No such power has been delegated to Assam officials.



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- Under the new rules, notified on October 24, the migrants can apply online, and the verification reports or the security clearance reports of the applicants shall be made available to the Centre through an online portal.
- Citizenship will be granted after the verification reports are received from the States and the Centre.

“The Collector or the Secretary shall maintain an online/digital as well as physical register, containing the details of persons so registered or naturalised as a citizen of India and furnish a copy thereof to the Central government within seven days of registration,” the notification said.

Swachh Nyayalaya Project:

Why in News?

A ₹700-crore project to have clean courts, right from the Supreme Court, High courts to the 3,388 lower courts, has been proposed.

About the Project:

- The project, which is ostensibly on the lines of the Centre's flagship scheme Swachh Bharat Abhiyan, would be undertaken by NITI Aayog and the Union Ministry of Drinking Water and Sanitation along with the justice department.
- In a pre-launch function of the Swachh Nyayalaya project at the apex court on Friday, Supreme Court judge, Justice Madan B. Lokur said besides construction and maintenance of washrooms in over 16,000 court rooms, a mechanism needs to be devised to deal with garbage and also to weed out old case files.
- The project would be inaugurated on the occasion of Law Day on November 26 by Chief Justice Ranjan Gogoi.

Need of the Project:

- The idea behind this Swachh Nyayalaya is to have those general clean up in terms of maintenance, in terms of house keeping issues, of course, providing toilets, washrooms and all that is one of the aspects of housekeeping and maintenance but equally important are issues of garbage disposal," Justice Lokur aid.
- He stressed the need to take up the project in "broad perspective" and said it should not remain confined to toilets and washrooms only.
- He then gave the example of the apex court and said that by weeding out old and unnecessary files, a large bar room has been made here.



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Electoral Bond Scheme 2018

Government of India has notified the Electoral Bond Scheme 2018 vide Gazette Notification No. 20 dated 02nd January 2018.

What is it?

- An electoral bond is designed to be a bearer instrument like a Promissory Note — in effect, it will be similar to a bank note that is payable to the bearer on demand and free of interest.
- The bonds will be issued in multiples of ₹1,000, ₹10,000, ₹1 lakh, ₹10 lakh and ₹1 crore and will be available at specified branches of State Bank of India.

Who can Purchase?

- As per provisions of the Scheme, Electoral Bonds may be purchased by a person (as defined in item No.2(d) of Gazette Notification), who is a citizen of India or incorporated or established in India.
- A person being an individual can buy Electoral Bonds, either singly or jointly with other individuals.

Eligibility criterion for Political Parties:

- Only the Political Parties registered under Section 29A of the Representation of the People Act, 1951 (43 of 1951) and which secured not less than one per cent of the votes polled in the last General Election to the House of the People or the Legislative Assembly of the State, shall be eligible to receive the Electoral Bonds.
- The Electoral Bonds shall be encashed by an eligible Political Party only through a Bank account with the Authorized Bank.

Other Deals about the Bond:

- State Bank of India (SBI) in the 6th phase of sale, has been authorised to issue and encash Electoral Bonds through its 29 Authorised Branches.
- Electoral Bonds shall be valid for **fifteen calendar days** from the date of issue and no payment shall be made to any payee Political Party if the Electoral Bond is deposited after expiry of the validity period.
- The Electoral Bond deposited by an eligible Political Party in its account shall be credited on the same day.



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Swachh Bharat Sustainable Sanitation Workshops

Why in News?

The series of sustainability regional workshops which will take place across the country have been scheduled within the next month to cover all States and Union Territories. Current locations include Chennai (Tamil Nadu), Nainital (Uttarakhand), Guwahati (Assam) and Kolkata (West Bengal).

Focus Areas:

- Quality and sustainability are a parallel focus in the Swachh Bharat Mission implementation mechanism, especially now that a majority of districts across the country have achieved Open Defecation Free (ODF) status.
- Aimed at a more focused drive on the theme of sustainability, and improving quality of, the work done on the ground, the review meeting covered a range of quality and sustainability indicators in order to improve infrastructure and data quality and to improve communication for quality initiatives.
- Swachh Bharat Mission enters its fifth and final year of implementation, this year is a clear milestone for the janandolan to move ahead with a new target to ensure the cleanliness of the country.

Success of SBM:

- As of October 2018, rural sanitation coverage has increased from 39%, at the launch of the SBM in 2014, to 95%.
- With rural India having constructed 8.7 crore individual household toilets, 5.15 lakh villages, 530 districts and 25 States and Union Territories have been declared ODF.

Multidimensional Poverty Index

While overall [poverty](#) in India has come down in 2016 compared to 2006, the progress has been uneven among States and communities.

A look at the Multidimensional [Poverty](#) Index (MPI), calculated by Oxford Poverty and Human Development Initiative and UNDP reveal the variations.

What is Multidimensional Poverty Index?



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- MPI is a measure that takes into account the incidence of poverty and the extent of deprivation. Going beyond just monetary measures, the MPI takes into account several factors. Here's a look at the various indicators involved and their weightage:

How is MPI calculated?

- Assets Housing Electricity Water* Sanitation Fuel* School attendance Years of schooling Child mortality Nutrition Weight 1/18 each Weight 1/6 each Living standards Education Health

*Water refers to drinking water and fuel refers to cooking fuel

- The calculation boils down to a value between 0 and 1. An MPI value of 1 indicates the highest deprivation level, while 0 indicates the lowest.

Global comparison

- India's MPI is lower than the global average of 0.159 and the South Asian countries, but is higher (worse) than BRICS countries (excluding Russia).
- The MPI has been calculated for 105 developing economies.

State & district comparison

- India's MPI stood at 0.121 in 2016, half of what it was in 2006.
- Among districts, Alirajpur (0.402) and Jhabua (0.393) districts in Madhya Pradesh and Shrawasti (0.393) in Uttar Pradesh had the highest MPI.
- The worst 10 districts were in Madhya Pradesh, Uttar Pradesh and Bihar.
- The lowest MPI was in Kottayam district, Kerala -- where the MPI stood at 0, indicating no deprivation.
- Thrissur and Ernakulam districts in Kerala had a marginal MPI of 0.001. In fact, the 10 districts with the lowest MPI were all in Kerala, except for Chennai in Mahe in Puducherry (0.001) and Chennai district in Tamil Nadu (0.05).

Variation across communities

The MPI has gone down across communities, but it is more than double among Scheduled Tribes compared to Others.

Mega Food Park

Why in News?



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Union Minister for Food Processing Industries Smt Harsimrat Kaur Badal today inaugurated the first Mega Food Park in Gujarat.

Gujarat Agro Infrastructure Mega Food Park Pvt. Ltd the Park is located at Village Shah and Vasravi, Taluka Mangrol, District Surat.

A 2nd Mega Food Park has been sanctioned by the Ministry in Mehsana District of Gujarat.

Benefits Expected:

- Mega Food Park will leverage an additional investment of about Rs. 250 crores in 25-30 food processing units in the park and generate a turnover of about Rs. 450-500 crore annually.
- The Park will also provide direct and indirect employment to 5,000 persons and benefit about 25,000 farmers in the CPC and PPC catchment areas.
- Modern infrastructure for food processing created at Park will benefit the farmers, growers, processors and consumers of Gujarat and adjoining areas immensely and prove to be a big boost to the growth of the food processing sector in the State of Gujarat.

About Mega Food Parks Scheme:

- Aimed at giving a major boost to the food processing sector by adding value and reducing food wastage at each stage of the supply chain with particular focus on perishables, Ministry of Food Processing Industries is implementing Mega Food Park Scheme in the country.
- Mega Food Parks create modern infrastructure facilities for food processing along the value chain from farm to market with strong forward and backward linkages through a cluster based approach.
- Common facilities and enabling infrastructure is created at Central Processing Centre and facilities for primary processing and storage is created near the farm in the form of Primary Processing Centers (PPCs) and Collection Centers (CCs).
- Under the Scheme, Government of India provides financial assistance upto Rs. 50.00 Crore per Mega Food Park project.

IMPRESS Scheme

Why in News?:

Union HRD Ministry has launched the web portal of IMPRESS scheme with an aim to build a research ecosystem in educational institutions.

About IMPRESS Scheme:



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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 scheme will focus on broad thematic areas such as state and democracy, urban transformation; media, culture and society; employment, skills and rural transformation; governance; innovation and public policy; macro-trade and economic policy and social media and technology.
- Under IMPRESS, 1,500 research projects will be awarded for two years to support social science research in the higher educational institutions.
- The Indian Council of Social Science and Research (ICSSR) will be the project implementing agency.
- The scheme will be implemented till March, 2021.

Namami Gange Programme:

Why in News?

The Executive Committee (EC) of the National Mission for Clean Ganga approved 12 projects worth Rs. 929 Crore under the Namami Gange programme in its 16th meeting today.

Two Sewage Treatment Plants (STPs) have been sanctioned for Delhi for creating 340 MLD waste treatment capacity at a cost of Rs 580 Crore.

About Namami Gange

- **Namami Gange Programme**, an integrated conservation mission, was approved as the flagship programme by the [government](#) in June 2016 with a budget outlay of ₹20,000 crore to accomplish the twin objectives of effective abatement of pollution, conservation, and rejuvenation of the Ganga.
- Under the project, 8 states are covered. Dept of Drinking Water Supply and Sanitation proposes to make 1,674 gram panchayats by the Ganga open defecation-free by 2022, at a cost of Rs 1,700 cr (central share).
- An estimated Rs 2,958 Crores ([US\\$460 million](#)) have been spent till July 2016 in various efforts in cleaning up of the river.

Main pillars of Namami Gange Programme



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1. Sewerage Treatment Infrastructure
2. River-Front Development
3. River-Surface Cleaning
4. Bio-Diversity
5. Afforestation
6. Public Awareness
7. Industrial Effluent Monitoring
8. Ganga Gram

Its implementation has been divided into Entry-Level Activities (for immediate visible impact), Medium-Term Activities (to be implemented within 5 years of time frame) and Long-Term Activities (to be implemented within 10 years)

PM Awaas Yojana (U)

The Ministry of Housing & Urban Affairs has approved the construction of another 2,15,083 more affordable houses for the benefit of urban poor under Pradhan Mantri Awas Yojana (Urban).

The approval was given in the 39th meeting of the Central Sanctioning and Monitoring Committee held here today.

About PMAY:

- Pradhan Mantri Awas Yojana ' (PMAY) is an initiative by Government of India in which affordable housing will be provided to the urban poor with a target of building 20 million affordable houses by 31 March 2022.
- It has two components: **Pradhan Mantri Awas Yojana (Urban) (PMAY-U)** for the urban poor and [Pradhan Mantri Awas Yojana \(Gramin\) \(PMAY-G](#) and also **PMAY-R**) for the rural poor.
- This scheme is converged with other schemes to ensure houses have a [toilet](#), Saubhagya Yojana electricity connection, [Ujjwala Yojana](#) LPG gas connection, access to [drinking water](#) and [Jan Dhan](#) banking facilities, etc.

Eligibility criteria

Condition for PMAY:

- (a) Beneficiary max age 70 years,
- (b) EWS (Economic Weaker Section) annual income Less than Rupees 3 Lac and LIG (Lower Income Group) Annual Income 3,00,001 to 6,00,000 Lac INR as well as Mid Income group since Feb 2017, and



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(c) The beneficiary should not have an own dwelling unit on the name of any family member in any part of India.

The houses given under this scheme will be owned by females or jointly with Males

United States India Strategic Partnership Forum

Why in News?

Board members of United States India Strategic Partnership Forum (USISPF) comprising senior industry and business captains of the United States of America, called on Prime Minister Shri Narendra Modi today.

Details :

The business leaders appreciated the economic and regulatory reforms implemented by the Government in the past four years, and expressed their desire to further deepen their engagements with India to make use of the mutually beneficial opportunities created by the rapidly growing Indian economy.

About USISPF

- The US-India Strategic Partnership Forum (USISPF) is a non-profit organization, with the primary objective of strengthening the U.S.-India bilateral and strategic partnership.
- The Executive Board came together in 2017 to establish USISPF with the purpose of enabling business and governments to collaborate...and create meaningful opportunities that can positively change the lives of citizens.
- The formation of USISPF signals a new chapter in U.S.-India relations.
- Dedicated to strengthening economic and commercial ties, USISPF plays a significant role in fostering a robust and dynamic relationship between the two countries through policy advocacy that will lead to driving economic growth, entrepreneurship, employment-creation, and innovation to create a more inclusive society.

USISPF has an established presence across both countries, with teams in New York, Silicon Valley, Washington DC, Mumbai, and New Delhi.

Fourth NITI Aayog- DRC Dialogue Held

The Fourth Dialogue of the NITI Aayog - Development Research Centre (DRC) of the State Council, Peoples' Republic of China was held in Mumbai today.



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This is the second ministerial dialogue between China and India since the meeting of Chinese President Xi Jinping and Indian Prime Minister Narendra Modi in Johannesburg during the BRICS summit in July 2018.

About NITI-DRC Dialogue:

NITI-DRC Dialogue is a strong platform for continuous intellectual engagement between the two countries, wherein inputs from sectoral experts help identify and collaborate on key areas of India-China economic cooperation.

Details of Dialogue:

- After detailed presentations and in-depth discussions, both sides affirmed their commitment for a more inclusive and truly global world order, with multilateralism as the preferred way forward.
- Emphasis was also laid on innovation and digital economy and it was observed that India and China are poised to become global leaders in digital innovation with rising number of tech startups operating in various sectors.
- On electric mobility, with India envisioning to move towards EVs and ZEVs by 2030, as also showcased by the Global Mobility Summit recently organized by NITI Aayog, avenues for collaboration via joint research and development, public and private investment were discussed.
- It was also agreed that NITI Aayog and DRC will undertake joint research in the areas of WTO reforms, urbanization and frontier technologies, which would be presented in the next Dialogue.

The Fifth edition of the NITI - DRC Dialogue will be held in Wuhan, China in November, 2019.

Shanghai Cooperation Organization Joint Exercise on Urban Earthquake Search & Rescue -2019

Why in News?

The two-day long preparatory meeting of the “Shanghai Cooperation Organization Joint Exercise on Urban Earthquake Search & Rescue- 2019 began here today.

This marks the first phase of the main exercise scheduled for 21-24 February, 2019 in Delhi by India.

The National Disaster Response Force (NDRF) has been entrusted with the responsibility of organizing the exercise by Government of India.

Raionale for exercise:



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- Increasing trends of disasters especially hydro-metrological disasters in the region.
- As all the countries are interconnected with each other, hence action in one part of world affects the other part.
- Challenges in disaster management are common in the world. If we are able to prevent and reduce the impact of disasters, it will be a huge global benefit.

About SCO:

Shanghai Cooperation Organization

The Shanghai Cooperation Organization (SCO) is a regional intergovernmental security alliance involving Russia, China and four Central Asian states



Milestones

- 1996
Foundation of the Shanghai Five, the SCO predecessor
- 1999
Foundation of the Bishkek Group to counter border criminality
- 2001
Uzbekistan joins SCO
- June 15, 2001
Shanghai Cooperation Organization Founding Declaration signed
- 2008
Iran submits official application for full-right SCO membership

Basic documents

- 2001
Shanghai Convention on the Struggle against Terrorism, Separatism and Extremism
- 2002
SCO Charter
- 2002
Regional Anti-Terrorist Structure (RATS) Founding Agreement

Goals and Objectives

- Strengthening of mutual trust and good-neighborly policies between member states
- Promotion of effective cooperation in politics, trade, economics, science, technology, and culture, as well as education, energy, transport, tourism and environmental protection
- Jointly ensuring peace, security and stability in the region
- Advancement to a new democratic, fair and rational global political and economic order

SCO Structure

- Council of Heads of State
 - Council of Heads of Government
 - Council of Foreign Ministers
 - Meetings of Heads of Ministries and Departments
 - Council of National Coordinators
 - Regional Anti-Terrorist Structure
- Russian Foreign Ministry
Ambassador-at-Large Vitaly Vorobyov is the Presidential Envoy for SCO Affairs

INDO - Japan joint military exercise DHARMA GUARDIAN 2018



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Why in News?

Exercise DHARMA GUARDIAN - 2018, a joint military exercise between Indian & Japanese Armies, commenced at Counter Insurgency and Jungle Warfare School, Vairengete, Mizoram, India on 01 November 2018.

About the Exercise:

- The Japanese contingent is being represented by 32nd Infantry Battalion, while the Indian side is being represented by 6/1 Gorkha Rifles.
- Approximately one platoon strength each of both the battalions is participating in this exercise.
- The opening ceremony was given a patriotic start by contingents of both the countries singing their respective national anthems.
- Being first of its kind, the 14 days long joint exercise is being conducted from 01 Nov 2018 to 14 Nov 2018.
- The exercise will consist of a balance of indoor classes and outdoor training activities.

Objective of this exercise :

- To build and promote army to army relations in addition to exchanging skills and experiences between both the armies.
- Due emphasis will be laid on enhancing tactical skills to fight against global terrorism and on increasing interoperability between forces of both countries which is crucial for the success of any joint operation.

The exercise will contribute immensely in developing mutual understanding and respect for each other's military.

Atal Pension Yojana (APY)

Why in News?

The Atal Pension Yojana (APY) is the guaranteed Pension Scheme of Government of India administered by PFRDA.

The Subscriber base under APY has crossed 1.24 crore mark. The Govt of India guarantees the pension benefits.

About APY:

- **Atal Pension Yojana (previously known as Swavalamban Yojana)** is a government-backed pension scheme in [India](#) targeted at the [unorganised sector](#).



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- It was mentioned in the [2015 Budget speech](#) by Finance Minister [Arun Jaitley](#).
- It was launched by Prime Minister [Narendra Modi](#) on 9 May in [Kolkata](#).
- As of May 2015, only 20% of India's population has any kind of pension scheme, this scheme aims to increase the number.
- In Atal Pension Yojana, for every contribution made to the pension fund, The Central Government would also co-contribute 50% of the total contribution or ₹1,000 (US\$14) per annum, whichever is lower, to each eligible subscriber account, for a period of 5 years.
- The minimum age of joining APY is 18 years and maximum age is 40 years. The age of exit and the start of pension would be 60 years.
- Therefore, a minimum period of contribution by the subscriber under APY would be 20 years or more

Turga Pumped Storage

Why in News?

A Loan Agreement was recently signed between India and Japan on Japanese Official Development Assistance loan for the construction of Turga Pumped Storage (I) of Yen 29.442 Billion (Rs. 1817 crore approximately).

About Turga Pumped Storage project:

- The Turga Pumped Storage Project on Turga nala is a closed loop type Pumped Storage Project located in Purulia district of West Bengal.
- The Turga Pumped Storage Project envisages utilization of rainfall in the catchment of the Turga Nala in Ayodhya hills for peak power generation for a Pumped Storage type project development.
- The project envisages construction of Upper Dam across Turga Nala, a tributary of Subarnarekha river and a water conductor system with an underground Power House on the downstream of Upper Dam and a Lower Dam having intermediate catchment of 4.37 sq. km.
- The objective of the Project is to strengthen the capability to respond to fluctuation in supply and demand of power and to improve stability of the power supply by constructing the pumped storage facilities, thereby contributing to the Industrial Development and Living Standard Improvement in the State of West Bengal.

Significance:



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India and Japan have had a long and fruitful history of bilateral development cooperation since 1958. In the last few years, the economic cooperation between India and Japan has steadily progressed.

This further consolidates and strengthens the Strategic and Global Partnership between India and Japan.

Deep Submergence Rescue Vessel (DSRV) Capability

Why in News?

The Indian Navy has inducted a Submarine Rescue System with a Deep Submergence Rescue Vessel (DSRV) along with associated equipment.

About DSRV:

- This System has a Side Scan Sonar for locating the position of the submarine in distress at sea, providing immediate relief by way of posting Emergency Life Support Containers with the help of Remotely Operated Vehicle (ROV) and thereafter rescuing the crew of the submarine using the DSRV itself.
- In a submarine accident, rapidity of response is most crucial to safety of life.
- To ensure early mobilisation, the System has been procured in a Flyaway configuration which permits rapid transportation of the Rescue System from the base to the exact location of the distressed submarine by transportation using air/land/sea vessels.
- The Indian DSRV has the capability to rescue personnel from a distressed submarine (DISSUB) up to a depth of 650 m and it is the latest in terms of technology and capabilities.
- With this capability, India has joined a select league of nations which have this unique capability and we are now in a position to not only provide rescue cover to our own submarines but also to other friendly nations in the IOR and beyond.

Global Drug Survey:

Why in News?

Now in its eighth year, the GDS for 2019 will survey, for the first time, consumption trends in alcohol, cannabis and opiates in India.

About Global drug Survey:



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- The 2019 survey, which will launch in November and be available online until December 30, will investigate drug habits across 35 countries, and its findings will be translated into 20 languages.
- The GDS uses an encrypted, online platform to conduct annual anonymous surveys. No IP addresses are collected and the survey is independent of governments.
- The GDS 2019 will probe social issues, including how the police treat people who use drugs, and the complex problem of sexual assault, consent and drug use.
- How cannabis health warning labels might be an important part of drug regulation, how much people trust their person they get drugs from, how much do people in different countries pay for drugs and whether they think they are good value for money are among the questions that the GDS 2019 will investigate.

Objectives:

- To understand how advances in technology are influencing drug use and the complexities this pose in determining the levels of harmful dosage and how those who sought to reduce drug-related harm responded.
- Few studies have looked at use of alcohol and illicit drugs and consequences faced by drug users in India.

Previous Study:

- A 2004 survey by the Union Ministry of Social Justice on the extent and pattern and trends of drug abuse left out women.
- That study found the prevalence of alcohol use to be 21% and current use of cannabis at 3%. Among the alcohol and cannabis current users, 16% and 25% respectively were dependent.



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Fusion Energy Conference (FEC 2018)

Why in News?

The 27th Fusion Energy Conference (FEC 2018) was held recently in Gandhinagar, Gujarat.

- It was organised by the International Atomic Energy Agency (IAEA) and hosted by Department of Atomic Energy and Gandhinagar-based Institute of Plasma Research.

About Fusion Energy Conference (FEC 2018):

- The 27th IAEA Fusion Energy Conference (FEC 2018) aims to provide a forum for the discussion of key physics and technology issues as well as innovative concepts of direct relevance to the use of nuclear fusion as a source of energy.
- The scientific scope of FEC 2018 is intended to reflect the priorities of this new era in fusion energy research.
- With the participation of international organizations such as the ITER Organization and the European Atomic Energy Community (Euratom), as well as the collaboration of more than forty countries and several research institutes, including those working on smaller plasma devices, it is expected that this conference will, like previous conferences in the series, serve to identify possibilities and means for continuous and effective international collaboration in this area.

About IAEA:

- The IAEA is the world's centre for cooperation in the nuclear field. It was set up as the world's "Atoms for Peace" organization in 1957 within the United Nations family. The Agency works with its Member States and multiple partners worldwide to promote the safe, secure and peaceful use of nuclear technologies.
- It seeks to promote the peaceful use of nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons.
- IAEA reports to both the United Nations General Assembly and Security Council.
- The IAEA has its headquarters in Vienna, Austria.



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- The IAEA serves as an intergovernmental forum for scientific and technical cooperation in the peaceful use of nuclear technology and nuclear power worldwide.

Space Related news:

HAZMAT Programme:

The HAZMAT programme is an ultraviolet survey of red dwarfs at three different ages: young, intermediate, and old.

- Stellar flares from red dwarfs are particularly bright in ultraviolet wavelengths, compared with Sun-like stars, according to NASA.
- Violent flares from the host star may make planets orbiting it uninhabitable by affecting their atmospheres, scientists using NASA's Hubble Space Telescope have found.
- Hubble is observing such stars through a large programme called HAZMAT — Habitable Zones and M dwarf Activity across Time, NASA said in a statement.

What is M-Dwarf ?

- "M dwarf" is the astronomical term for a red dwarf star — the smallest, most abundant and longest-lived type of star in our galaxy, according to the study published in The Astrophysical Journal.
- Hubble's ultraviolet sensitivity makes the telescope very valuable for observing these flares.
- About three-quarters of the stars in our galaxy are red dwarfs.
- Most of the galaxy's "habitable-zone" planets — planets orbiting their stars at a distance where temperatures are moderate enough for liquid water to exist on their surface — likely orbit red dwarfs.
- In fact, the nearest star to our Sun, a red dwarf named Proxima Centauri, has an Earth-size planet in its habitable zone.

Red Dwarf and Ultraviolet Flares:

However, young red dwarfs are active stars, producing ultraviolet flares that blast out so much energy that they could influence atmospheric chemistry and possibly strip off the atmospheres of these fledgling planets.



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Dubbed the “Hazflare,” this event was more energetic than the most powerful flare from our Sun ever recorded.

Natural Disaster and World heritage Sites:

Dozens of UNESCO World Heritage sites in the Mediterranean such as Venice, the Leaning Tower of Pisa and the Medieval City of Rhodes are under severe threat of coastal erosion and flooding due to rising sea levels within the next 100 years, a study has warned.

The study, published in the journal Nature, presents a risk index that ranks the sites according to the threat they face from today until the end of the century.

The sites featuring highest on this index in current conditions include:

- Venice and its Lagoon, Ferrara, City of the Renaissance, and its Po Delta and the Patriarchal Basilica of Aquileia.

Cause for Concern:

- All these sites are located along the northern Adriatic Sea in [Italy](#) where extreme sea levels are the highest because high storm surges coincide with high regional sea-level rises.
- It found that of the sites, 37 are at risk from a 100-year [flood](#) event (a flooding event which has a one % chance of happening in any given year) and 42 from coastal erosion today.
- By the next century flood risk may increase by 50% and erosion risk by 13% across the region, and all but two of the sites (Medina of Tunis and Xanthos-Letoon) will be at risk from either of these hazards, said researchers.
- The Mediterranean region has a high concentration of UNESCO World Heritage Sites, many of which are in coastal locations as human activity has historically concentrated around these areas, they said.

Way Ahead:

The researchers have identified areas with urgent need for adaptation planning and suggest the iconic nature of such sites can be used to promote awareness of the need to take action to mitigate climate change.



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In some cases relocation of individual monuments, such as the Early Christian Monuments of Ravenna or The Cathedral of St James in Ibenik, may be technically possible though not for other sites which extend over large areas such as urban centres, archaeological sites and cultural landscapes, researchers said.

Silver Oak and Carbon Sequestration:

The exotic silver oak may be coffee growers' preferred shade tree now, but research shows that it affects carbon sequestration and tree diversity in Kodagu's agroforest systems.

What is Carbon Sequestration:

Carbon sequestration is the process involved in [carbon capture](#) and the long-term storage of [atmospheric carbon dioxide](#) or other forms of [carbon](#) to [mitigate or defer global warming](#).

It has been proposed as a way to slow the atmospheric and marine accumulation of [greenhouse gases](#), which are released by burning [fossil fuels](#)

Carbon stocks:

- Native trees in coffee estates and forests displayed high and comparable carbon stocks (approximately 193 and 222 megagrams (Mg) of carbon (C) per hectare respectively) as well as tree diversity (around 45 tree species).
- However, the introduction of silver oak negatively impacted both carbon stock and diversity.
- Predictably, robusta coffee estates with silver oaks had significantly lower tree diversity (nine species) and lower carbon stocks (up to an average of 65 MgC per hectare) than all other land-use systems in both precipitation zones.

Current trends

Hence, the current trend of replacing native shade trees in coffee estates with silver oaks is detrimental for carbon storage and tree diversity, especially in robusta farms.

Current policies do play a role in this change, because the exotics can be cut for timber without prior permission.

Flood Forecasting System:



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In 2015, unprecedented and sudden floods paralysed Chennai with over 18 lakh people being displaced.

Following this National Centre for Coastal Research (NCCR), Chennai, and IITs, got together to build a flood warning system customised for use in Chennai.

Carrying the acronym C-FLOWS, which stands for Chennai FLOod Warning System, the six-module ensemble can predict flooding due to heavy rainfall, sea-level rise and increase in water levels of the three rivers — Cooum, Adyar and Kosasthalaiyar — that traverse the city.

How will it Work?

- Knowing the elevation at different spots, the system can predict the way the area would flood based on different scenarios that have been simulated.
- Inputs were taken from the India Meteorological Department (IMD) on forecast and National Centre for Medium Range Weather Forecasting (NCMRWF), which gives the prediction for rain 10 days in advance.
- Similarly, INCOIS gives the hydrodynamic congestion such as storm surge and tide etc.

Effectiveness of System:

- Using this, the system can, two weeks ahead of the event, simulate the scenario.
- The system can predict what would happen at the level of individual wards.
- Thus, early warnings could be issued..
- There are many precomputed scenarios of flooding based on the forecast rainfall and tidal conditions, in a library.
- From this the most appropriate one may be selected for superimposing on the geomorphology.
- The 3D visualisation module makes possible a realistic visualisation of the flooding in various places such as infrastructure, buildings, roads, ward boundaries etc, by superimposing the model outputs on the layers of data.

Harit Diwali-Swasth Diwali” campaign

Why in News?

Ministry has initiated the campaign, and this year the campaign has been extended Pan-India.



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The “Harit Diwali-Swasth Diwali” campaign is now merged with “Green Good Deed” movement that has been initiated as a social mobilization for conservation and protection of environment. The Ministry encourages all schools and colleges to be part of this campaign.

Reasons for Launch of Campaign:

- Air pollution is a serious health issue in the country especially in the northern parts during winter seasons.
- Diwali which is a festival of lights falls during the same period.
- As a matter of practice people have been celebrating Diwali by bursting crackers.
- Crackers contains combustible chemicals that include potassium chlorate powdered aluminum, magnesium, salts of barium, copper, sodium, lithium, strontium etc. and emits smoke on combustion of these chemicals along with sound.
- This smoke and sound has health impacts on children, aged people and also animal and birds.
- Apart from these compounds large amount of waste is also generated after bursting of crackers.
- Keeping in view the above detrimental effects and also the importance of the festival, Ministry has initiated a “Harit-Diwali” campaign.
- This campaign was initiated in 2017-18 wherein large number of school children especially from eco-clubs participated and took pledge to minimize bursting of crackers and also discouraged the neighborhood and their friends from bursting of crackers.

Fisheries and Aquaculture Infrastructure Development Fund (FIDF)

Why in News?

The Cabinet Committee on Economic Affairs chaired by the Prime Minister Shri Narendra Modi has given its approval for creation of special Fisheries and Aquaculture Infrastructure Development Fund (FIDF).

National Bank for Agriculture and Rural Development (NABARD), National Cooperatives Development Corporation (NCDC) and all scheduled Banks (hereinafter referred as Banks) shall be the nodal Loaning Entities.

Benefits:

- Creation of fisheries infrastructure facilities both in marine and Inland fisheries sectors.
- To augment fish production to achieve its target of 15 million tonne by 2020 set under the Blue Revolution; and to achieve a sustainable growth of 8% -9% thereafter to reach the fish production to the level of about 20 MMT by 2022-23.



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- Employment opportunities to over 9.40 lakh fishers/fishermen/fisherfolk and other entrepreneurs in fishing and allied activities.
- To attract private investment in creation and management of fisheries infrastructure facilities.
- Adoption of new technologies.

Objective of FIDF:

- FIDF would provide concessional finance to State Governments / UTs and State entities, cooperatives, individuals and entrepreneurs etc., for taking up of the identified investment activities of fisheries development.
- Under FIDF, loan lending will be over a period of five years from 2018-19 to 2022-23 and maximum repayment will be over a period of 12 years inclusive of moratorium of two years on repayment of principal.

BepiColombo Spacecraft:

European and Japanese space agencies said an Ariane 5 rocket successfully lifted a spacecraft carrying two probes into orbit on Saturday for a joint mission to Mercury, the closest planet to the sun.

The European Space Agency and the [Japan](#) Aerospace Exploration Agency said the unmanned BepiColombo spacecraft successfully separated and was sent into orbit from French Guiana as planned to begin a seven-year journey to Mercury.

About the Mission:

- The BepiColombo spacecraft will have to follow an elliptical path that involves a fly-by of Earth, two of Venus and six of Mercury itself so it can slow down before arriving at its destination in December 2025.
- When it arrives, BepiColombo will release two probes — Bepi and Mio — that will independently investigate the surface and magnetic field of Mercury.
- The probes are designed to cope with temperatures varying from 430 degrees Celsius (806 F) on the side facing the sun, and -180 degrees Celsius (-292 F) in Mercury's shadow.
- The ESA-developed Bepi will operate in Mercury's inner orbit, and JAXA's Mio will be in the outer orbit to gather data that would reveal the internal structure of the planet, its surface and geological evolution.
- Scientists hope to build on the insights gained by NASA's Messenger probe, which ended its mission in 2015 after a four-year orbit of Mercury.



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Importance of Study:

- Mercury, which is only slightly larger than Earth's moon, has a massive iron core about which little is known.
- Researchers are also hoping to learn more about the formation of the solar system from the data gathered by the BepiColombo mission.
- "Beyond completing the challenging journey, this mission will return a huge bounty of science.
- The ensuing detailed observations of Mercury will help us better understand the environment of the planet, and ultimately, the origin of the Solar System including that of Earth.
- It is the second recent cooperation between the Europeans and the Japan Aerospace Exploration Agency.

JAXA's Hayabusa2 probe dropped a German-French rover on the asteroid Ryugu earlier this month.

Indian Institutes of Skills

Why in News?

The Centre has decided to set up skill development institutes on [government](#) land, in partnership with private players, across the country.

The Union Cabinet approved the scheme on Wednesday, according to an official statement.

The public-private partnership model will be adopted to set up the institutes — to be called the Indian Institutes of Skills — at select locations, based on demand and available infrastructure.

Objectives of IIS:

The institutes are expected to help boost global competitiveness of key industry sectors by providing high-quality training, applied research education and a direct and meaningful connection with the industry.

About PPP:



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- A PPP Project means a project based on a contract or concession agreement, between a Government or statutory entity on the one side and a private sector company on the other side, for delivering a service on payment of user charges.
- The rights and obligations of all stakeholders including the government, users and the concessionaire flow primarily out of the respective PPP contracts.

What is different about it?

- Unlike private projects where prices are generally determined competitively and Government resources are not involved, PPP projects typically involve transfer of public assets, delegation of governmental authority for recovery of user charges, private control of monopolistic services and sharing of risks and contingent liabilities by the Government.
- The justification for promoting PPP lies in its potential to improve the quality of service at lower costs, besides attracting private capital to fund public projects.

For creating a transparent, fair and competitive environment, the Government of India has been relying increasingly on standardising the documents and processes for award and implementation of PPP projects.

International year of Reefs-2018

The International Conference on Status and Protection of Coral Reefs (STAPCOR – 2018) with the theme “Reef for Life” was inaugurated at Bangaram coral Island of Union Territory of Lakshadweep.

What is STAPCOR?

The effect of climate change and global warming along with El-Nino on the corals has lead to heavy bleaching internationally during the year 1998. This led to the foundation of STAPCOR with a decision to have a international conference in every 10 years to review the status and progress of coral reefs all over the world.

About Corals:

- **Corals** are [marine invertebrates](#) within the [class Anthozoa](#) of the [phylum Cnidaria](#). They typically live in compact [colonies](#) of many identical individual [polyps](#).
- Corals species include the important [reef](#) builders that inhabit tropical oceans and secrete [calcium carbonate](#) to form a hard skeleton.
- A coral "group" is a colony of myriad [genetically identical](#) polyps.



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- Each polyp is a sac-like animal typically only a few millimeters in diameter and a few centimeters in length.
- A set of [tentacles](#) surround a central mouth opening. An [exoskeleton](#) is excreted near the base. Over many generations, the colony thus creates a large skeleton characteristic of the species. Individual heads grow by [asexual reproduction](#) of polyps.

BS Norms

Why in News?

The Supreme Court has banned the sale and registration of motor vehicles conforming to the emission standard Bharat Stage-IV in the entire country from April 1, 2020.

What are BS norms?

The BS — or Bharat Stage — emission standards are norms instituted by the government to regulate the output of air pollutants from internal combustion engine equipment, including motor vehicles. India has been following the European (Euro) emission norms, though with a time-lag of five years.

Difference between BS-IV and the new BS-VI:

- The major difference in standards between the existing BS-IV and the new BS-VI auto fuel norms is the presence of sulphur.
- The newly introduced fuel is estimated to reduce the amount of sulphur released by 80 per cent, from 50 parts per million to 10 ppm.
- As per the analysts, the emission of NOx (nitrogen oxides) from diesel cars is also expected to reduce by nearly 70 per cent and 25 per cent from cars with petrol engines.

National Monitoring Framework on Sustainable Development Goals

The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has approved the constitution of a High Level Steering Committee for periodically reviewing and refining the National Indicator Framework (NIF) for monitoring of Sustainable Development Goals (SDGs) with associated targets.

Members of Committee:

The High Level Steering Committee will be chaired by :



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- Chief Statistician of India and Secretary, Ministry of Statistics and Programme Implementation (MoSPI), with the Secretaries of data source Ministries and NITI Aayogas members and Secretaries of other related Ministries as special invitees, with function of reviewing of National Indicator Framework including refinement of the indicators from time to time.

Targets:

- Measures to mainstream SDGs into on-going national policies, programmes and strategic action plans to address the developmental challenges.
- Statistical indicators of NIF will be the backbone of monitoring of SDGs at the national and state level and will scientifically measure the outcomes of the policies to achieve the targets under different SDGs.
- Based on statistical indicator, the MoSPI will bring out national reports on implementation of SDGs. The Report will facilitate assessment of progress, identify challenges and give recommendations for follow up at the national level.
- High Level Steering Committee will review the National Indicator Framework on regular basis for its improvement.
- Data source Ministries / Departments will be responsible for providing regular information to MoSPI on these indicators at required intervals and disaggregation for national and sub-national reporting of SDGs.
- Advanced IT tools will be used for close and effective monitoring.

Major impact:

- a. SDGs integrate economic, social and environmental dimensions of development. It intends eradicating poverty and promoting prosperity in a changing world with basic motto of 'SabkaSaathSabkaVikash'.
- b. SDGs with 17 Goals and 169 Targets intend for promotion of sustainable, inclusive and equitable economic growth, creating greater opportunities for all, reducing inequalities, raising basic standards of living, fostering equitable social development and inclusion, promoting integrated and sustainable management of natural resources and ecosystems.
- c. NIF will help in outcome-based monitoring & reporting on progress on SDGs at National level.

Background:

- The UN General Assembly in its 70th Session considered and adopted the Sustainable Development Goals (SDGs) for the next 15 years.
- The 17 SDGs came into force with effect from 1st January, 2016.
- Though not legally binding, the SDGs have become de facto international obligations and have potential to reorient domestic spending priorities of the countries during the next fifteen years.



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- Countries are expected to take ownership and establish a national framework for achieving these Goals.
- Implementation and success will rely on countries' own sustainable development policies, plans and programmes.
- Countries would be responsible for follow-up and review at the national level, with regard to the progress made in implementing the Goals and targets.
- Actions at the national level to monitor progress under SDGs will require quality, accessible and timely data.

Technology Summit:

India will host the 24th edition of Technology Summit with Italy as the partner country.

This is the first time that Italy has been selected as partner country for this prestigious event.

Objectives of the summit:

- The Summit is envisaged to serve as a wide-ranging knowledge-business partnership platform.
- Companies, institutions and government agencies from India and Partner Country (Italy) will endeavor to foster technology transfers / joint ventures / R&D partnerships with an aim to increase bilateral trade & investments.
- The Summit will also facilitate a comprehensive convergence of key elements of knowledge economy (science, technology & innovation; research & development; and higher education) of India and Italy.
- It is envisaged that the Technology Summit will help in strengthening, expanding and deepening India-Italy relationship in multiple ways.
- It will also strengthen the collaborations between industries and universities of both countries and would lead to scaling-up of the existing bilateral industrial R&D programs.

Background:

Genesis of this Tech Summit lies in the first CII Technology Summit organised 23 years back in 1995 with an aim to facilitate global technology collaborations.

After a few successful yearly summits, CII became partner with the Department of Science & Technology in organising these Summits since 2004.

Some of the outcomes of previous technology summits are:

- Stronger S&T collaborations with partner countries



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- Large number of technology tie-ups between Indian and Partner Country's industry and research institutions
- Bilateral industrial R&D programs launched with Israel, Canada, Italy, Spain, Taiwan, S. Korea, UK, Finland
- Many industry-led collaborative R&D projects funded through Global Innovation & Technology Alliance.

Scheme for Promotion of Academic and Research Collaboration (SPARC)

The Minister of Human Resource Development, Shri Prakash Javadekar launched the web portal of the Scheme "**Scheme for Promotion of Academic and Research Collaboration (SPARC)**" in New Delhi today.

Aim of the Scheme:

SPARC scheme aims at improving the research ecosystem of India's higher educational institutions by facilitating academic and research collaborations between Indian Institutions and the best institutions in the world.

Details of Scheme:

- 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.
- This will include areas that are at the cutting edge of science or with direct social relevance to the mankind, specifically India.

Benefits Expected from Scheme:

- This scheme will improve research ecosystem of India's higher educational institutions by facilitating academic and research collaborations between Indian Institutions and the best institutions in the world (top-500 overall and top-200 subject-wise institutions listed in QS World University Ranking).
- They will jointly solve problems of national and international relevance. As per the criteria mentioned above, 254 top Indian Institutes and 478 top ranked global Institutes have been already identified.
- 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.



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Chandrayaan-2 lander

Why in News?

Indian Space Research Organisation Friday said it has successfully conducted a scaled-down test for the soft and safe landing of its Chandrayaan-2 lander for India's second Moon mission.

About The Lander:

The moon lander, Vikram, named after the father of Indian [space programme](#) Vikram Sarabhai, is crucial to carry out various tests on the moon surface.

Scaled-down version of Chandrayaan-2 Lander Vikram completed, critical Lander Actuator Performance Test (LAPT) to demonstrate capabilities of navigation, guidance and control system of Vikram for a safe, soft and precise landing on the Moon.

The LAPT test was meant for compensating the effect of earth's gravity as compared to moon's gravity and to match the thrust generation of sea level liquid engines as compared to flight engines, which will operate in vacuum environment, it said.

Mission Highlights:

- It was the third and final test to demonstrate retargeting in a parabolic trajectory.
- The LAPT demonstrated the capability of the NGC system of 'Vikram' to meet the mission requirement of safe, soft and precise landing on the lunar surface by steering the module horizontally as well as vertically down to a pre-defined target, the release said.
- With this, all the tests have been completed successfully.
- This is a major milestone accomplished in Chandrayaan-2 Lander.

About Chandrayaan-2:

- ISRO intends to launch Chandrayaan-2 sometime in January next year. The Mission will have an orbiter, lander and a rover.
- **Chandrayaan-2** is India's second [lunar exploration](#) mission after [Chandrayaan-1](#).



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- Developed by the [Indian Space Research Organisation](#) (ISRO), the mission is planned to be launched to the [Moon](#) by a [Geosynchronous Satellite Launch Vehicle Mark III](#) (GSLV Mk III).
- It includes a lunar [orbiter](#), [lander](#) and [rover](#), all developed by [India](#).
- Chandrayaan-2 is scheduled to be launched no earlier than January 2019, and will attempt to soft land a lander and rover in a high plain between two craters, [Manzinus C](#) and [Simpelius N](#), at a latitude of about 70° south. If successful, Chandrayaan-2 will be the first-ever mission to land a rover near the [lunar south pole](#).
- According to ISRO, this mission will use and test various new technologies and conduct new experiments.
- The wheeled rover will move on the lunar surface and will perform on-site chemical analysis.
- The data will be relayed to Earth through the Chandrayaan-2 orbiter, which will piggyback on the same launch

About Chandrayaan-1

- India's first lunar mission Chandrayaan 1 was successfully launched in October 2008.
- Scientists have found frozen water deposits in the darkest and coldest parts of the Moon's polar regions using data from the Chandrayaan-1 spacecraft, US space agency NASA said in August. PTI GMS RA BN BN BN 10261938

U.S.- India Trade Dispute:

Why in News?

The World Trade Organisation's (WTO's) dispute settlement body has set up a panel to examine the U.S. complaint against certain export-subsidy measures by India as both the sides failed to resolve the issue at consultation level

Background:

- In March, the U.S. dragged India to the global trade body's dispute settlement mechanism over export subsidies, saying that these incentives were harming the American companies.
- Seeking consultation under the aegis of the WTO is the first step of dispute settlement process.



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- If the two nations are not able to reach a mutually agreed solution through consultation, the complainant can request for a WTO dispute settlement panel to review the matter.

US Allegations:

- The U.S. has requested for the establishment of a dispute panel to examine the allegations on India's export incentive measures.
- The U.S. has challenged India's export subsidy programmes such as Merchandise Exports from India Scheme in the WTO, asserting that these initiatives harm its companies by creating an uneven playing field.
- They have stated that all WTO members, including India, are required to provide subsidies consistent with provisions of the WTO's Agreement on Subsidies and Countervailing Measures, including refraining from providing subsidies contingent upon export performance.
- During the consultation process, the U.S. had alleged that India was continuing to grant these export-contingent subsidies and even expanded the scope and scale of the subsidies.

India's Stand on Issue:

- India had stated that it was disappointed that the U.S. chose to move forward with a request for a panel, as it believed bilateral consultations held on April 11 were constructive.
- During the consultations, India provided a detailed understanding of the schemes implemented under its Foreign Trade Policy by answering all the questions raised by the U.S.
- India has also said that the schemes identified by the U.S. do not violate India's WTO obligations and are in conformity with all the elements of the agreement.

India's exports to the U.S. stood at \$47.9 billion in 2017-18, while imports aggregated at \$26.7 billion during the same fiscal.

New Species found in Western Ghats

Details of Findings:

The spot-necked day gecko and the Anaimudi day gecko, both very distinctly-patterned lizards found only in the higher reaches of the Agasthyamalai and Anamalai hill ranges in the Western Ghats, are the latest additions to India's reptile fauna.



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Red iris

The approximately six-centimetre-long lizard sported an unusual, bright red iris (a thin band surrounding the pupil of the eye) and a long, striking amber line also ran down its dark back: unlike anything the team had seen.

Spot-necked day gecko

- Another day gecko was spotted at Kollam's Shendurney Wildlife Sanctuary – which is part of the Agasthyamalai hill range – in 2016.
- This gecko had bluish-white spots in a distinct 'necklace-pattern' on its nape.

Observations of finding team:

- Both these diurnal geckos are currently known only from single localities in high-elevation forests located at more than 1,200 metres above mean sea level in the Ghats.
- There is a possibility that these day geckos could be present in the surrounding hills but more detailed surveys would be required to confirm this, said Cyriac.
- While mountain ranges in general have a rather high diversity of such day geckos, the "accelerated environmental decline" that these regions face are a concern.

Tiger Population Dwindling:

Background:

- Six different sub-species of tigers exist today, scientists confirmed on October 25, amid hopes the findings will boost efforts to save the fewer than 4,000 free-range big cats that remain in the world.
- The six include the Bengal tiger, Amur tiger, South China tiger, Sumatran tiger, Indochinese tiger and Malayan tiger.
- Three other tiger subspecies have already gone extinct: the Caspian, Javan and Bali tigers.

Key threats to tigers' survival:

Habitat loss and poaching.

Issues in Conservation:



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- How to best conserve the species and encourage both captive and wild breeding has been a matter of debate among scientists, in part because of divisions over how many tiger sub-species exist.
- "The lack of consensus over the number of tiger subspecies has partially hindered the global effort to recover the species from the brink of extinction.

Genomic study

- Researchers analyzed the complete genomes of 32 tiger specimens in order to confirm they fall into six genetically distinct groups.
- Although tigers are believed to have roamed the Earth for the past two to three million years, the current population traces back to about 110,000 years ago, "when tigers suffered a historic population bottleneck."
- Researchers found very little evidence of breeding among different tiger populations.
- This low genetic diversity indicates that each subspecies has a unique evolutionary history.
- It also sets tigers apart from other big cats like jaguars, which more commonly intermix across entire continents.
- Tigers are not all alike.
- Tigers from [Russia](#) are evolutionarily distinct from those from India. Even tigers from Malaysia and Indonesia are different."
- Reversing the decline of tigers means "maximizing the efforts to preserve the genetic diversity, evolutionary uniqueness, and potential of the species Panthera tigris.

Less Polluting Firecrackers named – SWAS, SAFAL and STAR

CSIR scientists have developed Less Polluting Firecrackers which are not only environment friendly but 15-20 % cheaper than the conventional ones.

Indian Fireworks industry is over 6000-crore worth of annual turnover and provides employment opportunities to over 5 lakh families directly or indirectly, this endeavour of CSIR aims at addressing the pollution concerns at the same time protecting the livelihoods of those involved in this trade.

Details about the crackers:

- The crackers have been named as safe water releaser (SWAS), safe minimal aluminium (SAFAL) and safe thermite cracker (STAR).



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- 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.
- SWAS has been tested for shelf life upto 3 weeks with consistent performance.
- 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.

Other innovations made:

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.
- 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.
- The team from CSIR-CEERI Pilani has developed functional prototype of E-Ladi, demonstration is also planned in next two months.

Living Planet Report- WWF

Unbridled consumption has decimated global [wildlife](#), triggered a mass extinction and exhausted Earth's capacity to accommodate humanity's expanding appetites, the conservation group WWF warned on Tuesday.

Observations made by WWF:

- From 1970 to 2014, 60% of all animals with a backbone — fish, birds, amphibians, reptiles and mammals — were wiped out by human activity, according to WWF's "Living Planet" report, based on an ongoing survey of more than 4,000 species spread over 16,700 populations scattered across the globe.
- For freshwater fauna, the decline in population over the 44 years monitored was a staggering 80%.



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- Regionally, Latin America was hit hardest, seeing a nearly 90% loss of wildlife over the same period.
- Another dataset confirmed the depth of an unfolding mass extinction event, only the sixth in the last half-billion years.
- Depending on which of Earth's lifeforms are included, the current rate of species loss is 100 to 1,000 times higher than only a few hundred years ago, when people began to alter Earth's chemistry and crowd other creatures out of existence.
- Measured by weight, or biomass, wild animals today only account for four% of mammals on Earth, with humans (36%) and livestock (60%) making up the rest.
- Ten thousand years ago that ratio was probably reversed.

Marine life:

- 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 degrees Celsius — mission impossible, according to some scientists — coral mortality will likely be 70 to 90%.
- An increase by 2 degrees Celsius would be a death sentence, a major U.N. report concluded last month.

About Living Planet Report:

- The **Living Planet Report** is published every two years by the [World Wide Fund for Nature](#) since 1998.
- It is based on the [Living Planet Index](#) and [ecological footprint](#) calculations.
- The Living Planet Report is the world's leading, science-based analysis on the health of our only planet and the impact of human activity.
- Humanity's demands exceed the Earth's capacity to sustain us. The latest edition of the Living Planet Report is released in October 2018.

About WWF:

- The **World Wide Fund for Nature (WWF)** is an [international non-governmental organization](#) founded in 1961, working in the field of the wilderness preservation, and the reduction of [human impact on the environment](#).
- It was formerly named the **World Wildlife Fund**, which remains its official name in [Canada](#) and the [United States](#).



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- It is the world's largest [conservation organization](#) with over five million supporters worldwide, working in more than 100 countries, supporting around 1,300 conservation and environmental projects.
- WWF is a foundation, with 55% of funding from individuals and bequests, 19% from government sources (such as the [World Bank](#), [DFID](#), [USAID](#)) and 8% from corporations in 2014.
- The group aims to "stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature
- Currently, their work is organized around these six areas: food, climate, freshwater, wildlife, forests, and oceans

INS Tarangini

Why in News?

The sail training ship of Indian Navy, INS Tarangini based at Kochi, returned after a seven month long sailing across the world to a grand reception at naval base, Kochi on 30 Oct 18.

About the Voyage:

- The Voyage named "Lokayan 18" was flagged off on 10 Apr 18 from Kochi. During the voyage, the ship has proudly 'shown the flag' and highlighted the diverse culture of India across 15 ports in 13 countries.
- The ship sailed across the Arabian Sea, Red Sea, Suez Canal, Mediterranean Sea, Strait of Gibraltar, North Atlantic Ocean, Bay of Biscay, English Channel and North Sea, right up to Norway before commencing her homeward passage back to Kochi.
- The ship also participated in the culminating event of the 'Three Festival Tall Ships Regatta' at Bordeaux, France.

About INS Tarangini:

- INS Tarangini is a three masted 'square rigged' barque which carries a total of 20 sails.
- She is the First Sail Training Ship in Indian Navy and was commissioned on 11 Nov 1997.
- In her 21 years of glorious service, she has sailed over 2,20,000 nautical miles to date across the world's oceans.
- The primary role of these Sail Training Ships is to develop character and professionalism, as well as inculcate the qualities of initiative, courage, resilience and esprit-de-corps amongst the Sea Trainees and also impart practical training to them, primarily on navigation, sailing and seamanship.



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- Over the years, INS Tarangini has been extensively deployed for long voyages away from her base port of Kochi, which includes one circumnavigation of the globe (2003-04) and three previous 'Lokayans' (2005, 2007 and 2015).

Financial Stability and Development Council (FSDC)

Why in News?

The Nineteenth Meeting of the Financial Stability and Development Council (FSDC) under the Chairmanship of the Union Minister of Finance and Corporate Affairs, Shri ArunJaitley reviewed the current global and domestic economic situation and financial sector performance.

The Council decided that the Regulators and the Government would keep a close watch on the developing situation and take all necessary measures.

About FSDC:

- **Financial Stability and Development Council (FSDC)** is an apex-level body constituted by the [government of India](#).
- The idea to create such a super [regulatory body](#) was first mooted by the Raghuram Rajan Committee in 2008.
- Finally in 2010, the then Finance Minister of India, [Pranab Mukherjee](#), decided to set up such an autonomous body dealing with macro prudential and financial regularities in the entire financial sector of India.
- An apex-level FSDC is not a statutory body.

Reasons for setting up FSDC:

- The recent global economic meltdown has put pressure on governments and institutions across the globe to regulate their economic assets.
- This council is seen as [India](#)'s initiative to be better conditioned to prevent such incidents in future.
- The new body envisages to strengthen and institutionalise the mechanism of maintaining [financial stability](#), [financial sector development](#), inter-regulatory coordination along with monitoring macro-prudential regulation of [economy](#).

Composition of the council:

- Chairperson: The Union Finance Minister of India
- Members:



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- Governor [Reserve Bank of India](#) (RBI),
 - Finance Secretary and/ or Secretary, Department of Economic Affairs (DEA),
 - Secretary, Department of Financial Services (DFS),
 - Secretary, Ministry of Corporate Affairs,
 - Chief Economic Advisor, Ministry of Finance,
 - Chairman, [Securities and Exchange Board of India](#) (SEBI),
 - Chairman, [Insurance Regulatory and Development Authority](#) (IRDA),
 - Chairman, [Pension Fund Regulatory and Development Authority](#) (PFRDA),
 - Chairman, [Insolvency and Bankruptcy Board of India](#) (IBBI)
- Additional Secretary, Ministry of Finance, DEA, will be the Secretary of the Council,
- The Chairperson may invite any person whose presence is deemed necessary for any of its meeting(s).

Parker Solar Probe

NASA's historic Parker Solar Probe — enroute to the Sun to unravel its mysteries — has become the closest spacecraft to it.

The spacecraft passed the current record of 26.55 million miles from the Sun's surface on October 29, as calculated by the Parker Solar Probe team.

The previous record for closest solar approach was set by the German, American Helios 2 spacecraft in April 1976.

As the Parker Solar Probe mission progresses, the spacecraft will repeatedly break its own records, with a final close approach of 3.83 million miles from the Sun's surface expected in 2024.

Parker Solar Probe will begin its first solar encounter on October 31, continuing to fly closer and closer to the Sun's surface until it reaches its first perihelion — the point closest to the Sun — on November 5.

About Parker Solar Probe:

- **Parker Solar Probe** (previously **Solar Probe**, **Solar Probe Plus**, or **Solar Probe+**, abbreviated **PSP**) is a [NASA robotic spacecraft](#) en route to probe the outer [corona](#) of the [Sun](#).



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- It will approach to within 9.86 [solar radii](#) (6.9 million kilometers or 4.3 million miles) from the center of the Sun and will travel, at closest approach, as fast as 690,000 km/h (430,000 mph).
- It became the first NASA spacecraft named after a living person, honoring physicist [Eugene Parker](#), professor emeritus at the [University of Chicago](#).
- On 29 October 2018, the spacecraft surpassed the current record of 26.55 million miles from the Sun's surface.
- The previous record was set in April 1976 by the [Helios 2](#) spacecraft.

The goals of the mission are:

- Trace the flow of energy that heats the [corona](#) and accelerates the [solar wind](#).
- Determine the structure and dynamics of the [magnetic fields](#) at the sources of solar wind.
- Determine what mechanisms accelerate and transport energetic particles.

MSME Support and Outreach Programme

Why in news?

The Prime Minister, Shri Narendra Modi will launch the Micro, Small and Medium Enterprises (MSME) Support and Outreach Programme.

Focus of programme:

Access to credit, access to market, hand holding and facilitation support measures etc. for MSME Sector are likely to be announced on this occasion.

About the Programme:

- MSME Outreach Programme will run for 100 days covering 100 Districts throughout the country.
- Various Central Ministers are likely to visit these districts in order to apprise the entrepreneurs about various facilities being extended to MSME Sector by the Government and financial institutions and to come forward and make best use of these facilities including access to credit and market, etc.
- In short, it is expected that this Outreach Programme will help in further boosting the MSME sector since this sector is one of the major generator of employment opportunities and making a significant contribution to the overall growth of the economy.

Importance of MSME Sector:



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- MSME- an abbreviation of Micro, Small & Medium enterprises- is the pillar of economic growth in many developed, and developing countries in the world.
- Often rightly termed as “the engine of growth” for India, MSME has played a prominent role in the development of the country in terms of creating employment opportunities-MSME has employed more than **50 million people**, scaling manufacturing capabilities, curtailing regional disparities, balancing the distribution of wealth, and contributing to the **GDP-MSME sector forms 8% of GDP**.
- Though India is still facing infrastructural problems, lack of proper market linkages, and challenges in terms of flow of institutional credit, it has seen a tremendous growth in this sector.

Share of MSME in Manufacturing, Exports and Employment sectors in India:

	Sector	Percentage(%) share
1	Manufacturing	45
2	Exports	40
3	Employment	69

- The contribution of MSME to other sectors has been immensely instrumental.
- It is the biggest employer after agriculture sector, despite the fact that agriculture sector’s contribution to GDP is less than MSME.
- While it contributes about 45% to manufacturing sector, and perhaps 40% to Exports, it forms the highest share of Employment sector in India, contributing around 69% to it.

Advantage of MSME sector :

- Requires less investment, thus creating employment on a large scale, and reducing the employment and underemployment problems.
- Moreover, this sector has survived almost all threats emerging out of still completion from both domestic and international market.



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Ease of doing Business Report:

As per the World Bank report 2019 on Ease of Doing Business, India has taken a huge leap of 23 ranks from 100 in 2017-18 to 77 in 2018-19 indicating it is continuing its steady shift towards global standards.

Detailed Observation:

- One of the key indices which has contributed immensely toward this growth is 'Trading across borders' which shows an impressive improvement from 146 rank last year to 80th rank this year.
- The Ministry of Shipping has been taking initiatives to improve the parameter of 'Trading across border' as 92% of India's Export- Import trade by volume is handled at ports.
- The report mentions that this is mainly due to India's continued reform agenda, which has made it the top-ranked economy in the region.
- Upgradation of port infrastructure, Improvement of processes, and digitization of document submission has substantially reduced Export/Import cargo handling time at ports which has significantly contributed towards improving the trading across border parameter and India's impressive growth in the World Bank's report.
- The World Bank has recognized India as one of the top improvers for the year.

Black Hole:

Scientists using data from India's first dedicated [astronomy](#) satellite, AstroSat, and NASA's Chandra X-ray Observatory have found that a black hole in the binary star system 4U 1630-47 spins close to the maximum possible rate.

What are Black Holes?

- Relatively smaller black holes are exotic end states of massive stellar cores, said astronomers led by the Tata Institute of Fundamental Research (TIFR) in Mumbai.
- The gravity of such a collapsing core is so strong that its entire mass is crushed into a point, according to the research accepted for publication in The Astrophysical Journal.
- This point, however, cannot be directly seen, because nothing, not even light, can escape from a region around it, thus justifying the name of the object.
- Surprisingly, astronomical black holes are the simplest known objects in the universe, because they can be fully characterised by only two properties, mass and spin rate.
- Therefore, measurements of these two properties are uniquely important to probe some extreme aspects of the universe, and the fundamental physics related to them.



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About AstroSat:

- AstroSat was launched in 2015 by the Indian Space Research Organisation (ISRO).
- It is the first dedicated astronomy satellite of India, and the SXT aboard AstroSat is the first Indian X-ray telescope.

Mission

Astrosat is a proposal-driven general purpose observatory, with main scientific focus on:

- Simultaneous multi-wavelength monitoring of intensity variations in a broad range of cosmic sources
- Monitoring the X-ray sky for new transients
- Sky surveys in the hard X-ray and UV bands
- Broadband spectroscopic studies of X-ray binaries, [AGN](#), [SNRs](#), clusters of galaxies, and stellar coronae
- Studies of periodic and non-periodic variability of X-ray sources

Sovereign Gold Bond Scheme

Why in News?

Government of India, in consultation with the Reserve Bank of India, Sovereign Gold Bonds 2018-19 (Series III) will be opened for the period November 05-09, 2018.

What is the Sovereign Gold Bond?

- Sovereign Gold Bonds or SGBs are government securities denominated in grams of gold.
- People who hold physical gold can go for these bonds as substitute.
- For subscription, investors will have to pay the issue price in cash and the bonds will be redeemed in cash on maturity.

How the Sovereign Gold Bonds will benefit you?

- Bonds can be used as collateral for loans.
- Not only this, it would also be allowed to be traded on exchanges to allow early exits for investors.



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- The tenor of the bond is for a minimum of 8 years with option to exit in 5th, 6th and 7th years.
- These Bonds will carry sovereign guarantee both on the capital invested and the interest.
- Under this scheme, capital gain tax arising on redemption of SGB to an individual has been exempted.

How can you buy it?

- SGBs will be issued on payment of rupees and denominated in grams of gold. Minimum investment in the bond shall be 1 grams.
- The bonds can be bought by Indian residents or entities and is capped at 500 grams.

Who is issuing the bonds?

- The Bonds are issued by the Reserve Bank of India on behalf of the government.
- The bonds are distributed through banks and designated post offices. This should make subscribing to the bonds an easy affair.

Dawn spacecraft:

Why in News?

NASA's pioneering Dawn spacecraft — which orbited the two largest objects in the asteroid belt — has run out of fuel, ending a historic 11-year mission that unravelled many mysteries of our solar system, the US space agency said.

About the Mission:

- The USD 467 million Dawn mission, launched in 2007 to study the protoplanet Vesta and the dwarf planet Ceres, missed scheduled communications sessions with NASA's Deep Space Network.
- The astounding images and data that Dawn collected from Vesta and Ceres are critical to understanding the history and evolution of our solar system.
- It was an expected end to the mission, although the spacecraft lasted two years longer than originally planned.

Contribution of Dawn:



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- The spacecraft launched 11 years ago to visit the two largest objects in the main asteroid belt.
- Currently, it is in orbit around the dwarf planet Ceres, where it will remain for decades, NASA said.
- In 2011, when Dawn arrived at Vesta, the second largest world in the main asteroid belt, the spacecraft became the first to orbit a body in the region between Mars and Jupiter.
- In 2015, when Dawn went into orbit around Ceres, a dwarf planet that is also the largest world in the asteroid belt, the mission became the first to visit a dwarf planet and go into orbit around two destinations beyond Earth.
- “The data Dawn beamed back to Earth from its four science experiments enabled scientists to compare two planet-like worlds that evolved very differently.
- Dawn also reinforced the idea that dwarf planets could have hosted oceans over a significant part of their history — and potentially still do.
- Because Ceres has conditions of interest to scientists who study chemistry that leads to the development of life, NASA follows strict planetary protection protocols for the disposal of the Dawn spacecraft, NASA said.

Companies Amendment (Ordinance), 2018

The recommendation of the Union Cabinet for promulgation of the Companies Amendment (Ordinance), 2018 has been assented to by the President of India.

The Ordinance, which has been promulgated today is based on the recommendations of the Committee appointed by the Government to review offences under the Companies Act, 2013.

The twin objectives of the Ordinance are promotion of Ease of Doing Business along with better corporate compliance.

The main amendments are as under;

- i. Shifting of jurisdiction of 16 types of corporate offences from the special courts to in-house adjudication, which is expected to reduce the case load of Special Courts by over 60%, thereby enabling them to concentrate on serious corporate offences. With this amendment the scope of in-house adjudication has gone up from 18 Sections at present to 34 Sections of the Act.
- ii. The penalty for small companies and one person companies has been reduced to half of that applicable to normal companies.
- iii. Instituting a transparent and technology driven in-house adjudication mechanism on an online platform and publication of the orders on the website.



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- iv. Strengthening in-house adjudication mechanism by necessitating a concomitant order for making good the default at the time of levying penalty, to achieve the ultimate aim of achieving better compliance.
- v. Declogging the NCLT by:
 - a. enlarging the pecuniary jurisdiction of Regional Director by enhancing the limit up to Rs. 25 Lakh as against earlier limit of Rs. 5Lakh under Section 441 of the Act;
 - b. vesting in the Central Government the power to approve the alteration in the financial year of a company under section 2(41); and
 - c. vesting the Central Government the power to approve cases of conversion of public companies into private companies.