

My Notes....

NATIONAL

ACCESSION TO THE PROTOCOL UNDER WHO

The Union Cabinet Chaired by Prime Minister Shri Narendra Modi has given approval to accede to the Protocol under World Health Organization (WHO) Framework Convention on tobacco control to eliminate illicit trade in tobacco products. It will be applicable to both smoking and chewing or smokeless tobacco (SLT) forms as negotiated and adopted under Article 15 of the World Health Organization Framework Convention on Tobacco Control (WHO FCTC). India is a party to WHO FCTC.

What

1. The protocol lays down obligations of the parties. It spells out supply chain control measures that must be adopted by the parties viz. licensing of manufacture of tobacco products and machinery for manufacturing of tobacco products, due diligence to be kept by those engaged in production, tracking and tracing regime, record keeping, security; and measures to be taken by those engaged in e-commerce, manufacturing in free-trade zones and duty free sales.
2. The protocol lists out offences, enforcement measures such as seizures and disposal of seized products. It calls for international cooperation in information sharing, maintaining confidentiality, training, technical assistance and cooperation in scientific and technical and technological matters.

Background

1. The WHO Framework Convention on Tobacco Control (WHO FCTC) is the first international public health treaty negotiated under the auspices of the WHO.
2. The objective of FCTC is to provide a framework for supply and demand reduction measures for tobacco control at the national, regional and global levels.
3. One of the key tobacco supply reduction strategies contained in Article 15 of WHO FCTC envisages elimination of all forms of illicit trade and tobacco products, including smuggling, illicit manufacturing and counterfeiting.
4. Accordingly, the said Protocol was developed and adopted by the Conference of Parties (COP) which is the governing body of FCTC. The protocol is divided into 10 parts and contains 47 Articles.

Impact:

1. Elimination of illicit trade in tobacco products through strengthened regulation will help in strengthening comprehensive tobacco control, leading to reduction in tobacco use which in turn, will result in reduction in disease burden and mortality associated with tobacco use.
2. Accession to such treaty will provide actionable alternatives against such prevailing practices that are affecting public health at large. India, being at the forefront of tobacco control, would be able to influence the international organizations including World Custom Organization in controlling such illicit trade.
3. The protocol to eliminate illicit trade in tobacco products is a path breaking initiative in strengthening global action against tobacco and is also a new legal instrument in public health. It is a comprehensive tool to counter and eventually eliminate illicit trade in tobacco products and to strengthen legal dimensions for international health cooperation.

DRAFT CAUVERY SCHEME SUBMITTED IN SC

The Centre on 14 May 2018 submitted the draft Cauvery management scheme, to ensure smooth distribution of water between Karnataka, Tamil Nadu, Kerala and Puducherry, before the Supreme Court for its perusal and approval.

What

1. The apex court said that it will **not go into “correctness of the scheme”** and rather confine itself to whether the scheme was in consonance with its February 16 judgment.
2. The apex court had on February 16 asked the Centre to formulate a scheme to ensure compliance of its judgment on the decades-old Cauvery dispute.
3. It had modified the Cauvery Water Disputes Tribunal (CWDT) award of 2007 and made it clear that it will not be extending time for this on any ground.
4. The top court had then raised the 270 tmcft share of Cauvery water for Karnataka by 14.75 tmcft and reduced **Tamil Nadu’s share**, while compensating it by allowing extraction of 10 tmcft groundwater from the river basin, saying the issue of drinking water has to be placed on a “higher pedestal”.



Riparian woes: The Cauvery flowing near Salem. • E.LAKSHMI NARAYANAN

- Proposed authority to have 10 members, of which 6 will be from the Centre

- Authority to be assisted by Cauvery Water Regulation Committee

- Regulation Committee to meet once in 10 days in June and October and at least once a fortnight after the advent of monsoon

- Reservoirs to be operated by States concerned in an integrated manner under the authority’s overall guidance

- Distress to be shared by States after authority determines the conditions

- Authority’s headquarters to be located in Bengaluru

- Decisions will be based on a majority of the members

NATIONAL WIND-SOLAR HYBRID POLICY

Ministry of New and Renewable Energy has issued National Wind-Solar Hybrid Policy on 14 May 2018. The objective of the policy is to provide a framework for promotion of large grid connected wind-solar PV hybrid system for efficient utilization of transmission infrastructure and land. It also aims at reducing the variability in renewable power generation and achieving better grid stability. On technology front the Policy provides for integration of both the energy sources i.e. wind and solar at AC as well as DC level. The Policy also provides for flexibility in share of wind and solar components in hybrid project, subject to the condition that, rated power capacity of one resource be at least 25 per cent of the rated power capacity of other resource for it to be recognised hybrid project.

What

1. The Policy seeks to promote new hybrid projects as well as hybridisation of existing wind/solar projects. The existing wind/solar projects can be hybridised with higher transmission capacity than the sanctioned one, subject to availability of margin in the existing transmission capacity.
2. The Policy provides for procurement of power from a hybrid project on tariff based transparent bidding process for which Government entities may invite bids.
3. Policy also permits use of battery storage in the hybrid project for optimising the output and further reduces the variability. It mandates the regulatory authorities to formulate necessary standards and regulations for wind-solar hybrid systems.
4. With significant capacity additions in renewables in recent years and with Hybrid Policy aiming at better utilisation of resources, it is envisaged that the Hybrid Policy will open-up a new area for availability of renewable power at competitive prices along with reduced variability.

UNDP TO SET UP SKILL DEVELOPMENT CENTRE

United Nations Development Programme (UNDP) is going to set up skill development centre for clients of Bharosa, an integrated support centre for distressed women and children in Hyderabad, Telangana. This initiative is aimed at empowering vulnerable and marginalised women by imparting skills training.

What

1. This centre will be set up in line with agreement signed between Hyderabad Police and UNDP under Disha project to build capacities and skills of women affected by violence to help make them economically self-sufficient.
2. The agreement extends support to enable these women to learn marketable skills and connect with income opportunities.
3. Bharosa is an initiative of Hyderabad City Police launched in 2016. It is state-of-the-art centre to support women and children who are victims of violence.
4. Under one roof, the centre provides 24X7 services related to police, medical, legal, prosecution, psycho-therapeutic counselling and relief and rehabilitation services in completely private counselling rooms to maintain confidentiality and privacy.
5. It is equipped with well-trained staff and modern gadgets, including facilities like video conferencing, so victims need not go to the court.
6. Since its inception, it has helped total of 3,560 victims in range of problems. Of these over 2,600 sought aid with regard to domestic violence.

About UNDP

1. **UNDP is United Nations' global** development network.
2. It advocates for change and connects countries to knowledge, experience and resources to help people build better life.
3. It provides expert advice, training and grants support to developing countries with increasing emphasis on assistance to least developed countries.
4. It promotes technical and investment cooperation among nations.
5. It is headquartered in New York City, US.

75 NATIONAL RESOURCE CENTRES NOTIFIED

The Ministry of Human Resource Development has launched a major and unique initiative of online professional development of 1.5 million higher education faculty using the MOOCs platform SWAYAM. In the first phase, 75 discipline-specific National Resource Centres have been identified which are tasked to prepare online training material with focus on latest developments in the discipline, new & emerging trends, pedagogical improvements and methodologies for transacting revised curriculum.

What

1. **A varied set of institutions such as, Centres under the Ministry's Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMMNTT) located in Central Universities, IISc, IUCAA, IITs, IISERs, NITs, State Universities ; UGC's Human Resource Development Centres(HRDCs), National Institutes for Technical Teachers Training (NITTTRs), IIITs, Open Universities** have been notified as NRCs.
2. These NRCs cover wide ranging disciplines of Social Sciences, Sciences, Engineering and Technology, Design & Manufacturing, Humanities, Language Teaching, Commerce, Management, Education Planning and Administration, Public Policy, Leadership & Governance, Library & Information Science, Astronomy & Astrophysics, Assessment and Evaluation, Pedagogy and research methods , cutting edge areas of Nano-sciences, Internet of Things, etc.
3. Under this initiative, all in-service teachers, irrespective of their subject and seniority will have an enabling opportunity to keep abreast of the latest developments in their disciplines through the technology based online refresher course.
4. The NRCs will develop the Refresher Module which will include the latest trends in their earmarked discipline by 15th June each year.

5. The training materials will be uploaded and made available through SWAYAM to all the teachers w.e.f. 1st October each year and based on the response, the course can be repeated in the following January.
6. NRC will publish the list of the faculty who have been certified by 31st December, 2018. UGC will issue order/regulations for the purpose of Career Progression and APIs.
7. Faculty can benefit from this initiative as it is highly flexible and can be done at **one's** own pace and time. The NRCs will revolutionize professional development of faculty by catering to massive numbers by leveraging ICT and online technology platform of SWAYAM.

GOVT TO SET UP MARINE OBSERVATION SYSTEM

India will establish a Marine Observation System Along the Indian Coast (Mosaic). At least six observatories – three along the east coast and an equal number along the west coast – will be established. The project, to be launched later this year is intended to carry out monitoring, especially the marine coastal pollution. The Hyderabad-based INCOIS will be the implementing agency. The Secretary, who was recently to review the activities of various institutes under the Ministry, said this was one of the main initiatives of the Ministry, which got a budget allocation of ₹1,800 crore for fiscal year 2018-19.

What

1. The Ministry, which has five ships to conduct research, exploration and surveys, is firming up plans to buy its first polar research vehicle (PRV).
2. The expression of interest phase has been completed and seven firms shortlisted. Indian and foreign firms are interested and joint ventures between Indian and foreign firms have also been allowed.
3. The Goa-based National Centre for Antarctic and Ocean Research (NCAOR), which is focusses on research in the Antarctic region, will play an important role in the purchase of the vessel.
4. **The Ministry's efforts to acquire the vessel have been long-drawn**, with the initial decision taken way back in 2010-11. The polar research vehicle is important to undertake intensive studies in the Antarctica and Arctic regions as well as to carry out a range of ocean studies.
5. The Ministry, which has been conducting Antarctica expeditions from the early 1980s, has been contracting vessels for the purpose.
6. The 1,000-crore vessel can cut through sheets of ice and glaciers. The Ministry has been spending a considerable amount on chartering the ship annually.

TRIFED GOES DIGITAL

Tribal Co-operative Marketing Development Federation (TRIFED) of Ministry of Tribal Affairs has operationalised Retail Inventory Software (RIS) in all its Tribes India Outlets, Regional Offices and Head Office for inventory control. The electronic mode of system has been made available at all Regional Offices and Outlets, streamlining the entire retail operations from purchases upto sales by automating the transaction process and tracking important purchase, stocks and sales data.

What

1. Implementation of RIS software will bring greater transparency and control over various transactions under Retail sale.
2. The various stages of retail sale process included in the Retail Inventory Software (RIS) include item selection for vendor at Regional Offices, request for code generation for selected items, generation of purchase order, stock and inventory details through POS and inventory management, monitoring of sale/purchase at regional office and report generation of sales/purchase at Head Office among others.

CREATION OF DGTR IN DEPARTMENT OF COMMERCE

The Government of India carried out an Amendment to the Government of India (Allocation of Business) Rules, 1961 on May 7, 2018 substituting **“Directorate General of Trade Remedies” in place of “Directorate General of Anti-Dumping and Allied Duties” in Department of Commerce**. This has paved way for creation of an integrated

single umbrella National Authority to be called the Directorate General of Trade Remedies (DGTR) for providing comprehensive and swift trade defence mechanism in India. The amendment of Allocation of Business Rules has also mandated Department of Commerce with work pertaining to recommendation of Safeguard measures.

What

1. Presently, the trade defence mechanism in India lacks optimality and takes more than a year to complete proceedings in cases pertaining to unfair trade practices.
2. Currently, the Directorate General of Anti-dumping and Allied Duties (DGAD) deals with anti-dumping and CVD cases, Directorate General of Safeguards (DGS) deals with safeguard measures and DGFT deals with quantitative restriction (QR) safeguards.
3. The DGTR will bring DGAD, DGS and Safeguards (QR) functions of DGFT into its fold by merging them into one single national entity. DGTR will deal with Anti-dumping, CVD and Safeguard measures.
4. It will also provide trade defence support to our domestic industry and exporters in dealing with increasing instances of trade remedy investigations instituted against them by other countries.
5. The creation of DGTR will provide a level playing field to the domestic industry. In the last three years, India initiated more than 130 anti-dumping/countervailing duty/safeguard cases to deal with the rising incidences of unfair trade practices and to provide a level playing field to the domestic industry.
6. The DGTR will function as an attached office of Department of Commerce. The recommendation of DGTR for imposition of Anti-dumping, countervailing & Safeguard duties would be considered by the Department of Revenue.
7. The DGTR will be a professionally integrated organisation with multi-spectrum skill sets emanating from officers drawn from different services and specialisations. The DGTR will also bring in substantial reduction of the time taken to provide relief to the domestic industry. The newly constituted body is in consonance with the goal of Minimum Government Maximum Governance of the Prime Minister of India.

WTO SETS UP PANEL FOR RENEWABLES ENERGY CASE

The World Trade Organisation (WTO) has set up a panel to resolve the dispute raised by India against the US with regard to the policies of eight American States in the renewable energy sector. India had alleged that the domestic content requirement norms imposed by these eight US States are inconsistent with global trade rules. As both the countries failed to resolve the issue in the bilateral consultation process, India had sought formation of dispute resolution panel. The dispute settlement body of WTO has agreed to establish a panel. It will soon start the hearing, a government official said.

What

1. On September 9, 2016, India had requested consultation with the US under the dispute settlement system of WTO regarding alleged domestic content requirements and subsidies provided by these states in the renewable energy sector.
2. Under the norms of domestic content requirements, it is mandatory upon domestic **companies to source a portion of input from local markets' products.**
3. India had alleged that the measures of those American states are inconsistent with **WTO's Agreement on Trade-Related Investment Measures** and the Agreement on Subsidies and Countervailing Measures.
4. They are inconsistent because they provide less favourable treatment to imported products vis-a-vis domestic products, and because the subsidies are contingent on the use of domestic over imported goods, India had stated in its application to WTO.
5. The eight states are Washington, California, Montana, Massachusetts, Connecticut, Michigan, Delaware and Minnesota.
6. The request for consultation is the first step under the Dispute Settlement System of WTO. Consultations give the parties an opportunity to discuss the matter and find a satisfactory solution without proceeding further with litigation.
7. After 60 days, if consultations fail to resolve the dispute, the complainant may request adjudication by a panel.

- Issues are cropping up in renewable energy area as the sector holds huge investment potential for businesses. With India focussing on this segment, companies in developed countries want to tap this market.

JOINT SURVEILLANCE OF MALDIVES EEZ

An Indian Navy ship has been deployed to undertake joint surveillance of exclusive economic zone (EEZ) of Maldives, seen as a move to improve bilateral relationship between the two countries which nose-dived after imposition of emergency in the island nation. The Indian Navy said its ship Sumedha, a naval offshore patrol vessel has been deployed to undertake the joint surveillance of EEZ of Maldives from May 9 to 17.

What

- It “is an endeavour of the Government of India and the Indian Navy** to ensure the safety and security of the vast EEZ of the island nation.
- It said the deployment has been made under its new ‘Mission Based Deployments’,** a new plan for deployment of warships in the Indian Ocean region.
- In February, Maldives had declined India’s invitation to participate in the eight-day mega naval exercise — Milan —** from March 6-13.
- Ties between India and Maldives nose-dived after Maldivian President Abdulla Yameen **declared emergency on February 5 following an order by the country’s Supreme Court** to release a group of Opposition leaders, who had been convicted in widely criticised trials.
- On February 21, India had reacted strongly over the extension of emergency by a month. The emergency was lifted 45 days later.
- The Navy said INS Sumedha would undertake an Operational Turnaround (OTR) at Male from May 11 to 12 during which Navy personnel on board the ship would interact and **impart training to Maldives’ National Defence Forces (MNDF) personnel.**
- The Indian Navy said Sumedha would also embark MNDF personnel onboard and undertake joint EEZ surveillance of Maldives from May 12 to 15.
- Two officers and eight sailors of the Indian Navy’s Marine Commando (MARCO) cadre are currently conducting the second Asymmetric Warfare Training Exercise ‘Ekatha 2018’ at Maldives, from Apr 28 to May 15.**
- The exercise is taking place at Composite Training Centre, Maafilhafushi, which is about 145 km north of Male.

FIRST CRUDE OIL CARGO FROM ADNOC

The first cargo of crude oil from the Abu Dhabi National Oil Company (ADNOC), destined for the Indian Strategic Petroleum Reserves Ltd (ISPRL) has set sail. The cargo is the first under an agreement between ADNOC and ISPRL to locate 5.86 million barrels of ADNOC crude oil at ISPRL’s Karnataka facility in Mangalore. **Minister for Petroleum and Natural Gas, Dharmendra Pradhan and UAE’s Minister of State and ADNOC Group CEO, Sultan Ahmed Al Jaber,** attended a ceremony to load approximately 2 million barrels of crude oil and flag it off.

What

- This is a part of Pradhan’s three day visit to the UAE.** Speaking at the occasion, he said, **The UAE is the first country to invest in India’s Strategic Reserves Programme.**
- The **strategic reserve will provide a boost to India’s energy security** and help us deal with supply side disruptions. While part of the stored oil will be used for commercial purposes by ADNOC, the major part will be purely for strategic purposes.
- The **implementation of the strategic reserve agreement follows ADNOC’s** announcement, in February, that an Indian consortium of three companies, comprising ONGC Videsh, IndianOil and Bharat Petro Resources had been awarded a **10 percent interest in Abu Dhabi’s new offshore Lower Zakum** concession.

BUDDHIST TOURISM CIRCUIT TO MORE STATES

EARLIER envisaged by the government as mainly comprising seven major Buddhist pilgrimage sites, in Uttar Pradesh and Bihar, **the ‘Buddhist Circuit’ will now be** expanded to 21 other states. The Ministry of Tourism has identified stupas and viharas

in these states, around which small intra-state Buddhist zones will be developed. These include the Madhya Pradesh and Rajasthan, as also Kerala, West Bengal, Goa, Gujarat and Jammu & Kashmir.

What

1. A total of Rs 362 crore has been sanctioned so far, of which Rs 75 crore has been cleared for Madhya Pradesh under the **Ministry's Swadesh Darshan** scheme, for the development of Sanchi, Satna, Rewa, Mandasaur and Dhar.
2. The plan is to create a Buddhist theme park, light and sound show, interpretation centre, wayside amenities and sanitation facilities, an official in the ministry said. Besides, Rs 36 crore and Rs 52 crore have been sanctioned for Gujarat and Andhra Pradesh respectively.
3. The Buddhist circuit is **being imagined as India's first trans-national tourist circuit**, with efforts to promote tourism starting from Lumbini in Nepal, where Buddha was born, to the sites in India he traversed, including Bodh Gaya, Sarnath, Kushinagar, Rajgir, Vaishali, Sravasti and Sankasia (in UP and Bihar).
4. The ministry is also in talks with the World Bank and Japanese government for funding of infrastructure projects connected with these sites.
5. The ministry also plans to involve the private sector in building tourism infrastructure **pertaining to the circuit; with Alphons pointing out that "huge money" is required.**
6. To showcase Buddhist heritage and pilgrim sites in India, the government organises the International Buddhist Conclave every alternate year.
7. In 2016, the conclave was held in Sarnath, where delegates from 39 countries participated. This year, the conclave is scheduled for October, and the location is still being finalised.

Flashback

1. The Union Ministry of Tourism had launched the Swadesh Darshan Scheme in 2014-15 with an aim to develop theme based tourist circuits in the country.
2. These tourist circuits will be developed on principles of high tourist value, competitiveness and sustainability in an integrated manner.
3. They will be developed by synergizing efforts to focus on concerns and needs of all stakeholders to enrich tourist experience and enhance employment opportunities.
4. Under this scheme, 13 thematic circuits have been identified for development.
5. They are Buddhist Circuit, North-East India Circuit, Coastal Circuit, Himalayan Circuit, Krishna Circuit, Desert Circuit, Eco Circuit, Wildlife Circuit, Tribal Circuit, Rural Circuit, Spiritual Circuit, Ramayana Circuit and Heritage Circuit.

FIRST APEX CONFERENCE FOR SMART CITY CEOS

The first apex conference for Smart City CEOs, held in Bhopal on 8-9th May 2018 emphasized on cross learning amongst the Smart City CEOs to accelerate the progress of the Smart City Mission projects. The two-day conference provided a unique platform for the city leaders and various stakeholders in the Smart Cities Mission for **convergence of ideas and sharing of best practices which will enable other's to fast track their Smart city projects.** During the Conference, Agence Française de Développement (AFD) launched their Programme to fund Smart City projects through a challenge process. They have made available Euro 100 million to finance 30- 80 selected projects, and Euro 6 million will be available for technical support. The objective is to promote sustainability, innovation and participatory approaches in the Smart Cities. Seven Smart Cities showcased their projects in an exhibition organized at the conference. Detailed panel discussions across the following nine themes took place during the First Apex Conference of Smart City CEOs:

1. Development of walkable streets
2. Creation of universally accessible public spaces

3. Digitally Integrated Smart City Centers
4. Creating Vibrant Urban Spaces (Waterfronts, Squares and Plazas)
5. Addressing women safety in Smart Cities
6. Promotion of Arts, Crafts and Culture in Smart Cities
7. Smart Education and Skill Development
8. Inclusive cities
9. PPP and Bonds for Urban Infrastructure

The Conference also focused on implementation of the following

1. Smart City Centres: To be conceptualized with usefulness in mind: for citizens, businesses, decision makers and stakeholders. Uses could include information capturing and its analysis, monitoring and decision-making while making no compromise on integration aspect
2. Area Based Development (ABD): To integrate as many elements as possible including smart streets, impactful (experiential) projects.
3. Human Resources: The PMC professionals to regularly upgrade skills.
4. For speedy implementation focus to be on tendering activity and planning and preparation of charts of milestones and timelines to avoid time overruns. To ensure completion of liveability survey and using the resulting data for evidence based planning and thereafter work on financial aspects.
5. During the event, the Bhopal Smart City also launched a cloud-based Common Integrated Data Centre, Disaster Recovery Centre and Integrated Control and Command Centre (ICCC).
6. This will help to monitor and administer several utilities and citizen services across seven cities in the state: Bhopal, Gwalior, Jabalpur, Indore, Ujjain, Satna, and Sagar. An incubation centre, to promote entrepreneurial spirit amongst youth, researchers, engineers and society at large, was also launched.

Flashback

1. Smart Cities Mission is an urban renewal and retrofitting program by the Government of India with the mission to develop 100 cities across the country making them citizen friendly and sustainable.
2. The Union Ministry of Urban Development is responsible for implementing the mission in collaboration with the state governments of the respective cities.
3. Smart Cities Mission envisions developing an area within 100 cities in the country as model areas based on an area development plan, which is expected to have a rub-off effect on other parts of the city and nearby cities and towns.
4. It is a five-year program, where all of the Indian states and Union territories are participating, except West Bengal by nominating at least one city for the Smart Cities challenge.
5. Financial aid will be given by the central and state governments between 2017- 2022 to the cities, and the mission will start showing results from 2022 onwards.

FINAL PHASE OF VARUNA NAVAL EXERCISE

Indian and French navies conducted final and third phase of Varuna naval exercise 2018 near Reunion Island in Indian Ocean region (IOR) to enhance their operational coordination. In the final phase, both navies simulated different possible scenarios such as asymmetric warfare and tested their air defence capabilities.

What

1. 2018 edition of Varuna naval exercise between Indian and French Navy was conducted in three phases and included anti-submarine, air defence and asymmetric engagement exercises.
2. It was aimed to explore measures to facilitate operational-level interactions between their armed forces and increase mutual cooperation, considering common global threats.

3. It was also held at time when Indian Ocean is witnessing increased Chinese naval presence.
4. The first phase was held in Arabian Sea, second phase was held off the Chennai coast in Bay of Bengal and **third near France's Reunion Island** in South Western Indian Ocean.
5. The first phase had focused on joint anti-submarine combat training off Indian coast in Goa, with participation of French nuclear submarine and **India's Kalvari Scorpene-class submarine**. The second phase focused on amphibious operations.
6. **Indian Navy's destroyer, INS Mumbai**, and frigate **INS Trikand** were the vessels participating in the exercise.
7. **Moreover, Indian Navy's submarine, Kalvari, P8-1** and Dornier maritime patrol aircraft and MiG 29K fighter aircraft also had participated in the exercise.

Flashback

1. India is major defence partner of France in Indian Ocean region. Maritime security is priority in India-**France's defence and security** policy, along with fight against terrorism.
2. Indian Navy and French Navy have been conducting naval exercises since 1983.
3. These exercises were christened as Varuna in 2001. The last edition of this annual bilateral exercise was conducted off French coast in April 2017.
4. The Varuna series of naval exercises now has grown in scope and complexity and provides opportunity to naval forces of both countries to increase interoperability and learn from **each other's best practices**.

INDIA'S FIRST ICCC FOR ITS SMART CITIES

Bhopal Smart City Development Corporation Ltd. (BSCDCL) **has launched India's first cloud-based Common Integrated Data Centre, Disaster Recovery Centre and Integrated Control and Command Centre (ICCC)**. It is powered by Hewlett Packard (HP) **Enterprise's Universal Internet of Things (IoT) Platform**.

What

1. ICCC will enable Madhya Pradesh State administration to monitor and administer multiple city civic utilities and citizen services across seven smart cities in state through central cloud.
2. These seven cities include Bhopal, Gwalior, Jabalpur, Indore, Ujjain, Satna, and Sagar.
3. It will also enable state-wide monitoring of these cities from central command view and result in significant cost savings as compared to deploying full-fledged data and disaster recovery centre along with command control centres in each of these seven cities.
4. HP has provided an end-to-end solution for BSCDCL that combines its Universal IoT platform, industry leading servers, Edge computer systems, HP Point next services and broad ecosystem of partners.
5. HP Universal IoT platform is critical to ICCC, as it adapts and integrates thousands of discrete sensors and applications on platform.
6. It will enable state government to remotely manage and control various citizen services via single platform.
7. These services include Smart Parking, Smart Lighting, Smart Traffic and Transport, Smart Waste Management and Smart Water.

DRAFT OF TELECOM POLICY RELEASES

The Department of Telecommunications (DoT) has released draft of new Telecom policy – National Digital Communications Policy, 2018. The policy seeks to unlock transformative power of digital communications networks to achieve the goal of digital empowerment and well-being of the people of India

Key Features

1. Strategic objectives: Calls for Universal broadband coverage, creating four million additional jobs in digital communications sector, enhancing contribution of digital

- communications sector to 8% of India's GDP from around 6% in 2017, enhancing India's contribution to global value chains and ensuring digital sovereignty.
2. Improvement in regulatory framework: The policy recognises its importance for attracting investments and ensuring fair competition, to serve the needs of the people.
 3. Rationalising spectrum regulatory regime: It recognises spectrum as key natural resource for public benefit to achieve socio-economic goals. It aims to optimise availability and utilisation by making adequate spectrum available to be equipped for the new broadband era.
 4. National Broadband Mission (Rashtriya Broadband Abhiyan): It will be established to secure universal broadband access for implementation of broadband initiatives. It will be funded through Universal Services Obligation Fund (USOF) and Public Private Partnerships (PPPs).
 5. Satellite Communication Technologies: Government would develop an ecosystem for satellite communications in India. It will be strengthened by revising licensing and regulatory conditions that limit the use of it, such as speed barriers, band allocation.
 6. USOF: Its scope and modalities will be reviewed by redesigning USOF and broadening its objectives to enable universal broadband access and strengthening institutional capacity to ensure effective rollout of services in uncovered, remote and rural areas.
 7. Quality of services: Effective institutional mechanisms will be established to protect consumers' interests including Telecom Ombudsman and centralised web based complaint redressal system.
 8. Comprehensive data protection regime: It has been mandated for digital communications that safeguards the privacy, autonomy and choice of individuals and facilitates India's effective participation in the global digital economy.

'VIJAY PRAHAR' EXERCISE

More than 20,000 troops of strike formations of the Army's South Western Command were engaged in "Vijay Prahar" exercise to fine-tune jointmanship with the Indian Air Force near Suratgarh in Rajasthan. Strike formations of the command are going through the exercise in Mahajan area close to Suratgarh in Rajasthan in which over 20,000 troops are participating with fighting equipment for a couple of weeks.

What

1. South Western Command formations based in Jaipur carry out Ex VIJAY PRAHAR employing more than 20000 troops, cutting edge equipment and state-of-the-art force multipliers in the Mahajan Field Firing Ranges close to Suratgarh on 01 May 2018.
2. The exercise has been set on situation based on a swift offensive action. The aim of the exercise is to fine-tune jointmanship with the Indian Air Force.
3. The IAF carried out exercise Gagan Shakti and demonstrated their capabilities and strength to handle adversaries.
4. In the immediate wake of Gagan Shakti, this exercise was being held for testing and refining jointmanship and maximising the impact of the joint operations.
5. The brigadier noted that some of the areas being emphasised were real-time information, intelligence, surveillance and reconnaissance capabilities, deployment and using satellite-based surveillance capabilities, drones, electronic warfare capabilities, radars with an aim to have a transparent battlefield.
6. The other aspects which, he said, were being focused on were fighting capabilities through armed helicopters and fighting and operate in nuclear environment.

About South Western Command

1. The South Western Command of the Indian Army was established in April 2005 and became fully operational on 15 August 2005.
2. It is headquartered at Jaipur, Rajasthan. The command's operational units include I Corps, formerly under Central Command, and X Corps transferred from Western Command.

- The exercise was culminated on May 9 and it would be witnessed by senior Army officials.

PAR PANEL TO LOOK INTO BLACK MONEY

A parliamentary panel headed by veteran BJP leader Murali Manohar Joshi decided to study the recovery of black money and performance of public sector banks among a host of subjects. The 30-member Estimates Committee, in a meeting, decided to study a host of subjects related to various ministries in the year 2018-19. As per the memorandum of the committee, the panel will look into the import of uranium for nuclear plants, mining activities and environment, upgrading of India Post offices and the drought situation in the country among other matters.

What

- The panel on estimates, which is also called the continuous economy committee, suggests changes in policy or administrative framework to bring efficiency in expenditure.
- It has also decided to look into the functioning of the Enforcement Directorate and the recovery of black money, performance of public sector banks, debt recovery tribunals, rural housing fund and review the imports, exports and balance of payments.
- The panel has also short listed preparedness of the armed forces, defence production and procurement as subjects to review and give suggestions to the government.
- On May 1, Lok Sabha Speaker Sumitra Mahajan had reconstituted the panel and re-appointed Joshi as its Chairman. Besides the panel on estimates, the Public Accounts Committee has been looking into the issue of black money after the implementation of demonetisation.
- RBI, the central bank of the country, had informed the PAC that it has “no information” on how much black money has been recovered as a result of demonetisation of Rs 500 and 1,000 denomination notes, or about unaccounted cash legitimised through exchange of currency post note ban.**

INDIA TAKES CONVENTION CENTRE ROUTE TO AFRICA

India has for the first time embarked on a unique initiative to build convention centres across 21 African countries, an exercise that was hitherto considered a success story for China. Beginning with Niger in western Africa, India is on a mission mode to set up a convention centre enabling Niamey (capital city) to host the African Union Summit in 2019. **Unlike the model followed by Africa’s other partners (read China),** India’s initiative is demand driven, upon request from its partners in continent, said persons familiar with the process.

What

- Convention centres will also be set up on a priority basis in eight other African nations — Uganda, Zambia, Malawi, Gambia, Burkina Faso, Togo, Gabon and Liberia upon their request. This will be followed by such grand centres in 12 other African nations.
- Neither of these 21 countries have world class convention centres where they can host sub-regional or Pan-African political summits and mega-business meets.
- Building convention centres have so far been the forte of China, especially in South Asia — Bangladesh and Sri Lanka — and elsewhere.
- India enjoys enormous goodwill in Africa based on its training modules and scholarships for African nationals. Besides Indian business enterprises are expanding footprints in the continent. But this is the first time that India is embarking on infrastructure building initiatives.
- In the past, India has created Presidential Palace in Ghana, Parliament in Ghana, besides the Parliament building in Afghanistan. India is also setting up the **Parliament building in Swaziland as decided during President Ram Nath Kovind’s recent visit to the southern African country.**
- These centres, to be built entirely by grants from India, will be named as Mahatma Gandhi Convention Centres and is the brainchild of foreign minister Sushma

Swaraj. The initiative is being launched on the occasion of the 150th birth anniversary celebrations of Mahatma Gandhi.

7. These centres will follow local customs, requirements and architectural designs. "The convention centres will be symbols of long lasting Indian presence in Africa showcasing support and friendship for the continent.

INTERNATIONAL

FAIL TO AGREE ON NILE DISPUTE

Egypt, Sudan and Ethiopia have failed again to make progress on their Nile dispute as Ethiopia works to complete a massive upstream dam, an Egyptian official said on 8 May 2018. Egypt fears the Renaissance Dam will cut into its share of the river, which provides virtually all the freshwater for the arid country of 100 million people. Ethiopia, which has the same sized population, says the dam is essential for its economic development.

What

1. Technical talks among irrigation ministers of the three countries in the Ethiopian capital, Addis Ababa, last week ended with no deal, Hossam el-Emam, a spokesman for Egypt's Irrigation Ministry, told The Associated Press.
2. Ethiopia and Sudan still insist on modifications to a technical report by a French firm commissioned to assess the dam's impact.
3. Last month, Egypt's Foreign Minister Sameh Shoukry warned that Egypt "will not accept the status quo" and "continues to defend the interests of its people regarding the Nile by several means," without elaborating.
4. The \$4.8 billion dam is now 63 percent finished, and Ethiopia hopes to become a key energy hub in Africa upon its completion.
5. The main sticking point with Egypt concerns how quickly the reservoir behind the dam is filled, and the impact that will have downstream.
6. Egypt has received the lion's share of the Nile's waters under decades-old agreements seen by other Nile basin nations as unfair.
7. Past Egyptian presidents have warned that any attempt to build dams along the Nile will be met with military action, but Egypt's current leader, President Abdel-Fattah el-Sissi, has ruled that out.
8. Sudan appears to be taking Ethiopia's side in the negotiations, and has revived a longstanding border dispute with Egypt.



BANGABANDHU SATELLITE-1

Bangladesh's first communication satellite Bangabandhu-1 will be launched by SpaceX's Falcon 9 rocket from Kennedy Space Center Launch Complex 39A. It is

designed to provide wide range of broadcast and communication services throughout Bangladesh.

What

1. It has been built by Thales Alenia Space, a Franco-Italian aerospace manufacturer.
2. **It is named after Bangladesh's "Father of the Nation"**- Bangabandhu Sheikh Mujibur Rahman.
3. It will provide citizens of Bangladesh Internet connectivity, phone services, radio, backhaul, direct-to-home (DTH) TV services and other communication related services.
4. It carries total of 40 Ku and C-band transponders with capacity of 1600 megahertz and has predicted life span of 15 years.
5. It will expand Ku-band coverage over all of Bangladesh and its nearby waters including Bay of Bengal, India, Nepal, Bhutan, Sri Lanka, Philippines and Indonesia.
6. It will make Bangladesh autonomous, in terms of telecommunications and broadcasting services.
7. **So far, a majority of Bangladesh's satellite communications was based on rented transponders from India.**
8. It will also provide lot of opportunities in terms of revenue generation.

INDIA TO HOST 15TH ASIA MEDIA SUMMIT

India was hosted 15th Asia Media Summit (AMS-2018) in New Delhi from May 10-12, 2018. The summit was organised by Asia-Pacific Institute for Broadcasting Development (AIBD) in collaboration with its partners and international organisations.

What

1. The theme of the annual **summit is "Telling our Stories- Asia and More"**.
2. The summit would be organised in two parts pre-summit workshop (8-9) and summit (10-12).
3. It aims to encourage regional and bilateral dialogue and cooperation to respond to challenges to the broadcasting sector in the region.
4. It would provide a unique opportunity for broadcasters in the Asian region to share their thoughts on software and hardware aspects of Broadcasting.
5. It would also provide opportunities for networking, facilities for business to business meetings and prospective translation of these meetings into trade and economic relations after the summit.

About AIBD

1. AIBD is regional inter-governmental organisation servicing countries of United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP) in field of electronic media development.
2. It was established in 1977 under auspices of UNESCO. It is hosted by Government of Malaysia and its secretariat is located in Kuala Lumpur.
3. The AIBD is mandated to achieve vibrant and cohesive electronic media environment in Asia-Pacific region through policy and resource development.
4. Currently it has 26 full members (countries), represented by 34 organisations and 67 Affiliate Members (organisations) and over 50 partners in Asia, Pacific, Europe, Africa, Arab States and North America.

SCO TOURISM MINISTERS' CONFERENCE HELD IN WUHAN

The Shanghai Cooperation Organization (SCO) **Tourism Ministers' conference** was held in Wuhan, China. It was first meeting of SCO tourism ministers since the organization was established in 2001 in Shanghai. From India Minister of State (Independent Charge) for Tourism K. J. Alphons attended the conference.

What

1. The meeting approved joint action plan that will serve as guideline for tourism cooperation between SCO member states for 2019-2020.
2. It specifies cooperation among national tourism administrations, as well as measures member states could take to improve tourist experience and safety, develop tourist products and promote smart tourism. It
3. SCO is political and security grouping headquartered in Beijing. It was founded in 2001.
4. The full members of organization are China, Russia, Kazakhstan, Uzbekistan, Tajikistan, Kyrgyzstan, India and Pakistan.
5. They represent over 40% of humanity and nearly 20% of the global GDP. Afghanistan, Belarus, Iran and Mongolia have observer status at present.
6. SCO is successor of grouping called Shanghai Five, founded by China in 1996. It comprised Russia, Kazakhstan, Kyrgyzstan, and Tajikistan.
7. In 2001 Uzbekistan was invited to join it and SCO was officially born. After Astana Summit Declaration in 2005, SCO has emerged as a regional security organization
8. **SCO's main objective is military cooperation between the members.** It also works towards intelligence-sharing, counter-terrorism operations in Central Asia.

US-INDIA AVIATION SUMMIT

The 6th United States-India Aviation Summit was held in Mumbai, Maharashtra from 9 to 11 May, 2018. It was formally inaugurated by Union Minister for Civil Aviation Suresh Prabhu.

What

1. The biennial Summit was jointly organised by Ministry of Civil Aviation and US Trade and Development Agency (USTDA).
2. The summit is a technical, policy and commercial forum and served to assist India civil aviation agencies and aviation industry representatives, including private sector airlines and airport operators
3. It also to identify advanced US technologies and practices that can support their expansion and modernization efforts.
4. The summit also included sessions on **India's projected aviation growth in next five years**, aviation security and technologies for worldwide airspace management among others.

SOUTH ASIA FACING 'LEARNING CRISIS'

There is a **"learning crisis"** in South Asia where only about half of the primary-aged children are receiving education with minimum standards, the UN's **Children's Fund UNICEF** warned on 7 May 2018. Investing in children is critical to achieving the sustainable development goals, Nepal Prime Minister KP Sharma Oli said as he inaugurated a three-day South Asian Conference

Flashback	
	1. A report, 'The Learning Generation: Investing in Education for a Changing World', was released by the Commission in 2016. If the ever-worsening learning crisis left unaddressed, it will lead half of the world's 1.6 billion children and youths out of school or failing to learn by 2030, the report has warned.
	2. The conference is being attended by some 75 participants including government officials, educational experts, development partners and civil society leaders from eight countries—India, Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, Pakistan and Sri Lanka.
	3. South Asia is currently home to more than 10 million out-of-school children, who should be able to attend primary level and 20 million out-of-school children at secondary level, according to a statement by UNICEF.
	4. The International Commission on Financing Global Education Opportunity, also known as the Education Commission, was set up in 2015 to reinvigorate the case for investing in education and to chart a pathway for increased investment in order to develop the potential of all of the world's young people

on 'Learning Generation and Delivery Approaches' organised by UN Children's Fund (UNICEF). Nepal's Constitution guarantees right to education to every child.

What

1. Learning crisis in South Asia with only about half of primary-aged children receiving education with minimum learning standards. Need much greater investment and increased quality education for girls and boys alike if we hope to see the next generation reach their full potential.
2. UNICEF has joined hands with the International Commission on Financing Global Education Opportunity and working with governments and partners to accelerate progress in education and increase financing for the sector giving priority to children at risk of being excluded from learning.
3. There is no better path to stronger economies—more peaceful countries—than **investment in every child's right to education.**

INDIA-JAPAN ENERGY DIALOGUE

The 9th India Japan Energy Dialogue was held in New Delhi on 1 May 2018. Both Japan and India, as the third and the seventh largest economies respectively, recognized that having access to reliable, clean and economical energy is critical for their economic growth and in achieving this, both Ministers agreed on further strengthening of bilateral energy cooperation for energy development of both countries, while also contributing to worldwide energy security, energy access and climate change issues.

What

1. Both India and Japan with a view to implement nationally Determined Contributions (NDCs) under the aegis of the United Nations Framework Convention on Climate Change (UNFCCC) recognized the importance of development and deployment of next generation technologies including hydrogen to realize de-carbonization.
2. Both India and Japan appreciated the relevance of the grid stability given the high penetration of variable renewable energy.
3. Both countries agreed to initiate the discussion towards development of Electric Vehicles (EVs) by collaborating with "Policy dialogue on next generation/Zero emission vehicles".
4. Both India and Japan reiterated the continued importance of coal-based electricity generation in the energy mix in both the countries and also agreed to promote the cooperation on environmental measures for coal-fired power plants.
5. Both India and Japan further confirmed their commitment to work together in promoting well-functioning energy markets and affirmed to promote transparent and diversified Liquefied Natural Gas (LNG) market through the relaxation of destination clause.

INDIA, PANAMA SIGN TWO AGREEMENTS

India and Panama have signed two agreements on exemption of Visas for holders of Diplomatic and Official Passports and in the field of Agriculture. These agreements were signed in the presence of Vice President M Venkaiah Naidu and President of Panama Juan Carlos Varela Rodrigues in Panama city. It was second leg of Vice President M **Venkaiah Naidu's his first official foreign** visit to three countries Guatemala, Panama and Peru **to strengthen India's relations with them.**

What

1. India and Panama always had cordial relations. These ties are based on our common values and shared commitment to democracy, pluralism, multi-culturalism, and the rule of law.
2. **During Vice President M Venkaiah Naidu's visit, both countries resolve to combat terrorism in all its forms and manifestations.**
3. India will set up two centres for Biodiversity and Innovation in Panama worth US \$10 million and US \$15 million each

- Both countries have agreed to boost cooperation in key areas by strengthening cooperation in tax information, economic cooperation, air services, traditional medicines, culture and space.

CHINA'S FIRST INDIGENOUSLY BUILT AIRCRAFT CARRIER

China's first domestically developed aircraft carrier has left for its sea trials on 13 May 2018, the country's official media announced in Beijing. The completely home-grown aircraft carrier has departed for sea trials on Sunday morning, state-run China Daily said in a brief report. China launched the second aircraft carrier in April 2017 after it commissioned the first carrier, the Liaoning, a refitted Soviet Union-made vessel, in 2012.

What

- Though Liaoning has become operational, it is being mostly used for research and improvements for the new carriers China plans to build. Reports said China is also building its third aircraft carrier in Shanghai.
- The country reportedly plans to have four aircraft carriers by 2030 to operate from the disputed South China Sea as well as the Indian Ocean.
- Some reports said China is also planning to build a nuclear aircraft carrier. China has developed a new jet fighter called A J-15 fighter to operate from the decks of its carriers.

US WITHDRAWS FROM IRAN NUCLEAR DEAL

United States President Donald Trump unilaterally withdrew US from historic 2015 Iran nuclear deal or Joint Comprehensive Plan of Action (JCPOA) deal signed between Iran and P5+1 country. It also reimposed sanctions on Iran that were lifted by the JCPOA.

What

- Trump administration cited that it cannot prevent Iran nuclear bomb and nuclear deal is defective at its core as it does not target **Iran's ballistic missile programme**, its nuclear activities beyond 2025, and its role in conflicts in Yemen and Syria.
- However other parties to the deal China, France, Russia, UK, Germany and European Union are still supporting it, thus avoiding entire collapse of JCPOA.
- JCPOA is informally called as 'Iran nuclear deal'**. It is multilateral nuclear deal signed between Iran and P5+1 (five permanent members of United Nations Security Council- US, China, France, Russia, and UK), plus Germany and European Union (EU), in Vienna in July 2015.
- The JCPOA is aimed at preventing Iran from building nuclear weapon, involved lifting of international sanctions in return for Tehran curbing its nuclear programme.
- This plan ensured that Iran will drastically reduce its uranium enriching capacity and levels, enriched stockpiles and centrifuges and will allow for stringent inspection and monitoring by international agencies including International Atomic Energy Agency (IAEA).

OPERATION INSANIYAT

India has sent Bangladesh its second relief consignment under Operation Insaniyat to help tens of thousands of displaced Rohingya Muslims who fled Myanmar into Bangladesh following military crackdown in violence-hit Rakhine state.

What

- Indian Navy Ship INS Airavat carrying 373-tonne relief consignment sailed from Vishakhapatnam and reached Chattogram port (formerly Chittagong) Port.
- The second consignment mainly contained 104 tonnes of milk powder, 102 tonnes of dried fish, 61 tonnes of baby food, 50,000 raincoats and 50,000 pairs of gum boots.
- The relief is in view of specific needs of large number of Rohingya women and children living in camps and onset of monsoon.
- Another tranche containing 1 million litres of kerosene oil and 20,000 cooking stoves will be sent soon.

Flashback

1. Rohingya are stateless ethnic minority (mostly Muslim) from Rakhine province of Buddhist-majority Myanmar, who are forced leave their country due to communal violence and repeated military operations.
2. **According to UN estimates, over 6 lakh Rohingya Muslims have fled Myanmar's violence hit Rakhine state into Bangladesh since August 2017 when fresh wave of violence had erupted in this province, triggering **one of the world's worst refugee crises.****
3. The violence had started after Rohingya militants belonging to Arakan Rohingya Salvation Army (also known as Harakat al-Yaqeen or Faith Movement) had **attacked police posts in Myanmar's northern Rakhine state.**
4. Earlier in December 2017, India had announced development assistance of US \$25 million for Rakhine state.
5. It also had sent relief materials for 300,000 Rohingyas in September 2017 under 'Operation Insaniyat' to support Bangladesh in its humanitarian efforts

ECONOMY

FFC CONSTITUTES AN ADVISORY COUNCIL FOR TOR

The Fifteenth Finance Commission (FFC) headed by NK Singh has constituted Advisory Council to advise and assist Commission on issue or subject related to Terms of Reference (ToR) to quell strong opposition from some states over 2011 census. The role and functions of the Advisory Council will be:

1. To advise the Commission on any issue or subject related to the Terms of Reference (ToR) of the Commission, which may be of relevance;
2. To assist in the preparation of any paper or research study which would enhance the Commission's understanding on the issues containing in its ToR
3. To help in broadening the Commission's ambit and understanding to seek best national and international practices on matters pertaining to fiscal devolution and improving the quality and reach and enforcement of its recommendations.

Flashback

1. Finance Commission is constitutionally-mandated body established once every five years by President to devise a formula for distributing net tax proceeds between centre and states as well as among states and local bodies.
2. The recommendations of 15th Finance Commission (FFC) will come into effect from 1 April 2020.
3. The ToR of 15th Finance Commission have drawn protests from many states, especially from southern ones, over its mandate to use 2011 Census data over 1971 Census data for resource allocation.

Advisory Council will have following members:

1. Arvind Virmani, President, Forum for Strategic Initiatives
2. Surjit S. Bhalla, Part-time Member of PMEAC and Sr. Indian Analyst for the Observatory Group and Chairman of Oxus Research and Investments
3. Sanjeev Gupta, Ex-Deputy Director (Fiscal Affairs Department), IMF
4. Pinaki Chakraborty, Professor (NIPFP)
5. Shri Sajjid Chinoy, Chief India Economist, JP Morgan

6. Shri Neelkanth Mishra, Managing Director and the Credit Suisse India Economist and Strategist

INDIA SLIPS 3 NOTCHES IN FDI INDEX

India has slipped three notches to the 11th position in the AT Kearney Foreign Direct Investment Confidence Index for 2018. The US remained in the top position for investment intentions with Canada rising to the second position while Germany fell to the third. Overall, India remains among the top investment destinations due to its sheer market size and rapid economic growth.

What

1. For long India has been a very exciting destination for investors and now especially with the current political stability and positive reforms environment, India will only gain its attractiveness as an investment destination.
2. **The IMF projects India's economy** will grow 7.4 per cent in 2018, the fastest growth rate of any major economy.
3. Inward FDI flows already increased to an estimated \$45 billion in 2017, a record high. Japan, US, UK, and Singapore consistently serve as large sources of FDI for India.
4. **The country's service sector is a target of particular interest for investors, with the government's Economic Survey 2017–2018** noting that inward FDI into the service sector will grow 15 per cent in 2018.
5. Notable reforms that have had a positive impact on **India's attractiveness include** the elimination of the Foreign Investment Promotion Board, a government agency responsible for reviewing all potential foreign investment, and the liberalisation of foreign investment thresholds for the retail, aviation, and biomedical industries.
6. Investors are most bullish about the economic outlook for the Asia Pacific region, with 43 per cent of investors more optimistic than last year about the region.
7. Top 10 countries in FDI Confidence Index 2018 are United States (1st), Canada (2nd), Germany (3rd), United Kingdom (4th), China (5th), Japan (6th), France (7th), Australia (8th), Switzerland (9th) and Italy (10th).

Flashback

1. The index is annual analysis of how political, economic, and regulatory changes will likely affect FDI inflows into countries in coming years.
2. It is constructed using primary data from proprietary survey administered to **senior executives of world's leading corporations.**
3. Companies participating in survey have annual revenues of \$500 million or more.

COUNTRY'S FIRST CRUDE OIL OPTIONS CONTRACT

India's Multi Commodity Exchange (MCX) will launch the country's first crude oil options contract on May 15, the exchange said in a statement on 8 May 2018. Two contracts expiring on June 15 and July 17 with lot size of 100 barrel will be launched next week.

What

1. India is the world's third-biggest consumer of crude oil. Crude oil futures contracts were most traded on the exchange platform in 2017/18 fiscal year ended on March 31.
2. The option contract will provide the physical market participants an additional tool to hedge their risk.
3. The Securities and Exchange Board of India has approved the options contract last week.

INDIA IN ASIA-PACIFIC ON POWER INDEX

India has ranked fourth out of 25 nations in the Asia-Pacific region on an index **that measures their overall power, with the country being pegged as a "giant of the**

future” but trails behind in indicators of defence networks and economic relationships. The Lowy Institute Asia Power Index measures power across 25 countries and territories in the Asia-Pacific region, reaching as far west as Pakistan, as far north as Russia, and as far into the Pacific as Australia, New Zealand and the US.

What

1. **A country’s overall power is its weighted average across eight** measures of power—economic resources, military capability, resilience, future trends, diplomatic influence, economic relationships, defence networks and cultural influence.
2. India is ranked fourth overall on the inaugural index by The Lowy Institute, an Australian think tank. Japan and India share major power status. Tokyo is a smart power, while New Delhi is a giant of the future, the report said.
3. Among the key findings from the inaugural 2018 index are that US remains the pre-eminent power in Asia, while China, the emerging superpower, is rapidly closing in on US. **Three of the world’s four largest economies are** in Asia, and the fourth, the United States, is a Pacific power.
4. By 2025, two-thirds of the world’s population will live in Asia, compared with just over a tenth in the West, the Institute said.
5. India is ranked fourth on the parameters economic resources, military capability, diplomatic influence and fifth on resilience.
6. It scores well on the parameters of cultural influence and future trends, ranking third in both.
7. However, it scores low on the measure of economic relationships, ranking seventh and in defence and networks ranking 10th.

WALMART'S FLIPKART DEAL

The **world’s largest retailer will acquire a 77 percent holding in Flipkart Group** for \$16 billion, the companies said on 9 May 2018. Flipkart co-founder Binny Bansal and other shareholders will hold the remainder. The tie-up values the Indian e-commerce giant at about \$20.8 billion and marks a blow against rival Amazon.com Inc. as the battle for e-commerce supremacy goes global.

What

1. The deal -- **Walmart’s biggest ever** -- gives it greater access to India’s e-commerce market, which Morgan Stanley has estimated will grow to \$200 billion in about a decade.
2. As Flipkart is expected to generate meaningful losses for at least the next few years, **this is clearly an investment for the future,”** Moody’s analyst Charlie O’Shea wrote in a note.
3. **S&P lowered Walmart’s outlook to negative from stable**, citing increasing leverage and risks stemming from the company’s spending to expand online and globally as it continues its share buyback program. The credit firm rates Walmart AA, the third-highest investment grade.
4. **The negative outlook shows there’s** “about a one-in-three chance” that Walmart’s strategy shift could result in a downgrade over the next two years, the credit-ratings company said in a statement.

DOUBLING OF INVESTMENT LIMIT FOR PMVVY

The Union Cabinet chaired by Prime Minister Shri Narendra Modi has given its approval for extending the investment limit from Rs 7.5 lakhs to Rs 15 lakhs as well as extension of time limits for subscription from 4th May 2018 to 31st March, 2020 under the Pradhan Mantri Vaya Vandan Yojana (PMVVY) as part of Government’s commitment for financial inclusion and social security.

What

1. Further, as a boost to the Social Security initiatives for senior citizens, the investment limit of Rs 7.5 lakh per family in the existing scheme is enhanced to Rs 15 lakh per senior citizen in the modified PMVVY, thereby providing a larger social security cover

to the Senior citizens. It will enable upto Rs.10000 Pension per month for Senior Citizens.

2. As of March, 2018, a total number of 2.23 lakh senior citizens are being benefited under PMVVY. In the previous scheme of Varishtha Pension Bima Yojana-2014, a total number of 3.11 lakh senior citizens are being benefited.

Background

1. The PMVVY is being implemented through Life Insurance Corporation of India (LIC) to provide social security during old age and protect elderly persons aged 60 years and above against a future fall in their interest income due to uncertain market conditions.
2. The scheme provides an assured pension based on a guaranteed rate of return of 8% per annum for ten years, with an option to opt for pension on a monthly / quarterly / half yearly and annual basis.
3. The differential return, i.e. the difference between the return generated by LIC and the assured return of 8% per annum would be borne by Government of India as subsidy on an annual basis.

PMSSY APPROVED BEYOND 12TH FIVE YEAR PLAN

The Union Cabinet chaired by the Prime Minister ShriNarendraModi has given its approval for continuation of Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) beyond 12th Five Year Plan for a period 2017-18 to 2019-20 with a financial outlay of Rs. 14,832 crores.

What

1. The Union Health Minister added that for each functional AIIMS established under PMSSY, a total of 4089 posts were created for a 960 bedded hospital.
2. The same number of posts will be created for a 960 bedded hospital for the new AIIMS that are being established under PMSSY. So far, for new AIIMS at Mangalagiri, Nagpur and Kalyani, a total of 1144 posts have been created with the approval of Ministry of Finance.
3. Highlighting the benefits of the scheme, ShriNadda said that each new AIIMS will add 100 UG (MBBS) and 60 B.Sc (Nursing) seats, 15-20 Super Specialty Departments and around 750 hospital beds.
4. PMSSY aims at correcting regional imbalances in the availability of affordable/reliable tertiary healthcare services and also at augmenting facilities for quality medical education in different regions of the country.
5. Various initiatives under PMSSY will lead to development of apex level medical education and nursing education and connected research facilities.
6. It will also lead to creation of tertiary level health care infrastructure through establishment of new AIIMS and will improve the referral system and enhance cross linkages between primary, secondary and tertiary level health care facilities.

NCLT APPROVES TATA STEEL BID

The National Company Law Tribunal (NCLT) on 15 May 2018 approved Tata **Steel's bid for debt**-ridden Bhushan Steel. The tribunal also dismissed a plea filed by the **employees of Bhushan Steel opposing Tata Steel's bid and imposed a fine of Rs 1 lakh**. The bench comprising NCLT President Justice M M Kumar and S K Mohapatra also dismissed the plea of engineering and construction major L&T seeking higher priority in recovery of loan and imposed a fine of Rs 1 lakh.

What

1. L&T, which is an operational creditor of Bhushan Steel, had sought higher priority in recovery of debt in the resolution process at par with the financial creditors.
2. The tribunal also rejected Bhushan **Energy's plea to continue its power purchase** agreement with Bhushan Steel. The order was pronounced in court and detailed judgment is awaited.

3. Earlier on April 11, the principal bench of the tribunal had reserved its order after hearing all the sides.
4. The Committee of Creditors (CoC) had approved Rs 32,500 crore deal along with 12.27 per cent equity in Bhushan Steel offered by Tata Steel.
5. However, some employees of Bhushan Steel had challenged it before NCLT contending that Tata Steel was not eligible under section 29 (A) of the Insolvency and Bankruptcy Code (IBC).

Flashback

1. The National Company Law Tribunal (NCLT) is a quasi-judicial body in India that adjudicates issues relating to Indian companies.
2. It was established under the Companies Act 2013 and was constituted on 1 June 2016 by the government of India & is based on the recommendation of the Justice Eradi committee on law relating to insolvency and winding up of companies.[2]
3. The NCLT has eleven benches, two at New Delhi (one being the principal bench) and one each at Ahmedabad, Allahabad, Bengaluru, Chandigarh, Chennai, Guwahati, Hyderabad, Kolkata and Mumbai.
4. Justice M.M. Kumar, a retired Chief Justice of the Jammu & Kashmir High Court has been appointed as President of the NCLT.
5. The NCLT Bench at Bangalore began functioning on 18 July 2016.

MERGER OF AIRTEL AND TELENOR APPROVED

The Department of Telecom (DoT) on 14 May 2018 approved the merger of Telenor India with Bharti Airtel. The Supreme Court had rejected DoT's petition for security deposit of around Rs 1,700 crore from the companies and directed it to approve the merger. The guarantee included Rs 1,499 crore for one-time spectrum charge for the radiowaves allocated to Airtel without auction, and over Rs 200 crore for spectrum payment which Telenor has to make.

What

1. The merger will bolster Airtel's spectrum footprint in seven telecom circles, with the addition of 43.4 MHz spectrum in the 1800 MHz band.
2. Telenor India runs operations in seven circles -- Andhra Pradesh, Bihar, Maharashtra, Gujarat, UP (East), UP (West) and Assam.
3. DoT has asked Airtel to reduce its market share based on adjusted gross revenue (money earned from telecom services) in Bihar service area to the limit of 50 per cent, within one year from the date merger of two companies is approved.
4. The National Company Law Tribunal (NCLT) had approved the proposed merger on March 8.

BUSINESS OPTIMISM INDEX

India was ranked 6th on Global Optimism Index released as part of Grant **Thornton's International Business Report** (IBR) in the first quarter of 2018. The report was prepared based on the results of a survey of 2,500 businesses in 37 economies.

What

1. The top five nations are Austria, Finland, Indonesia, the Netherlands and US. India with a score of 89 was ranked at the sixth place in the index.
2. India had topped the chart for four years, but business optimism in India deteriorated while entering the last year of the current Government led by Prime Minister Narendra Modi.
3. Underlying pessimism in **India's Business Optimism** is reflected in other parameters as well including revenue, selling prices, profitability, employment and exports expectations.

4. Indian businesses have been citing regulations and red tape, availability of skilled workforce, lack of ICT infrastructure and shortage of finance as biggest growth constraints.
5. **Even after significant jump in World Bank's Ease of Doing Business ranking, India still continues to rank first or second in quoting these reasons as the key hurdles for growth.**

SCIENCE AND TECHNOLOGY

NANOFERTILISERS FOR ENHANCING ZINC

Scientists at the MACS-Agharkar Research Institute (ARI) in Pune has developed a nanofertiliser that can enhance the concentration of zinc in wheat. When the fertiliser is sprayed on the leaves of the crop at the grain filling stage, scientists found that zinc was enriched by 36 per cent using minimum concentration of fertiliser. This will also reduce the requirement of fertiliser by at least eight times.

What

1. Zinc deficiency is one of the lesser-known health issues, globally. In India, zinc deficiency is also not adequately addressed.
2. Some of the main sources of zinc are green leafy vegetables, mushrooms and chicken. But these are not routinely consumed food sources and therefore, there is inadequate supply of this key micronutrient in the diet of the Indian population.
3. Deficiency of this micronutrient is rampant in pregnant women and children. It is linked to poor development of immune system, higher chances of developing retardation and harmful effects on reproductive health. Studies have also shown a close relation between zinc deficiency and diabetes.
4. Most interventions in improving the nutritive value of the food grain have largely concentrated on improving protein and carbohydrate content through nitrogen, phosphorus and potassium (NPK) fertilisers, but enhancing micronutrients like zinc is often neglected.
5. At times, when chemical fertilisers are posing a greater threat to soil quality and are growing as a serious health hazard to people, the team from MACS-ARI, led by director KM Paknikar, carried out extensive four-year long field-tests on wheat variety **MACS 3125, the institute's indigenously developed variant.**
6. This joint project was commissioned by the Indian Council for Agriculture Research (ICAR) in 2011. ARI researchers and their counterparts at the Indian Agricultural Research Institute (IARI) aimed at addressing the zinc insufficiency in **the country's food crops.**

NEW SHEEP INSEMINATION TECHNIQUE

Scientists at Central Sheep and Wool Research Institute (CSWRI), Avikanagar, Rajasthan have come up with new laparoscope-assisted insemination technique for sheep breeding. It is minor invasive laparoscopic technique involves passing rigid fibre-optic laparoscope into abdomen through small incision. Using it, reproductive tract of sheep is located through camera and frozen semen is deposited into uterus.

What

1. The new technique has resolved difficulties involved in freezing of semen and inability to transit tortuous reproductive tract of sheep kept as livestock.
2. Earlier, success with frozen semen in sheep was very low because of its poor freezability.
3. The new technique will also help achieve up to 60% survival in birth of lambs. Moreover, it will have immense potential for rapid multiplication of elite germplasm.
4. Using this technique, as many as 40 females can be inseminated from a single ejaculate.
5. It will also be of great help in the breed improvement programmes.

NEW EVIDENCE OF WATER PLUMES ON EUROPA

Scientists re-examining data from an old NASA spacecraft have found evidence **that the liquid water reservoir under the surface of Jupiter’s moon Europa** is venting plumes above its icy shell. **Data collected by NASA’s Galileo spacecraft in 1997** was put through new and advanced computer model to untangle a mystery – a brief, localised bend in the magnetic field – that had gone unexplained until now.

What

1. **Previous ultraviolet images from NASA’s Hubble Space Telescope in 2012** suggested the presence of plumes. However, the new analysis published in the journal *Nature Astronomy*, used data collected much closer to the source and is considered strong, corroborating support for plumes.
2. There now seem to be too many lines of evidence to dismiss plumes at Europa, Europa Clipper project scientist at **NASA’s Jet Propulsion Laboratory (JPL)** in the US.
3. This result makes the plumes seem to be much more real and, for me, is a tipping point. These are no longer uncertain blips on a faraway image.
4. At the time of the 1997 flyby, about 200 kilometers above **Europa’s surface, the Galileo team did not suspect the spacecraft might be grazing a plume erupting from the icy moon.**
5. When they examined the information gathered during that flyby 21 years ago, sure enough, high-resolution magnetometer data showed something strange. Drawing on what scientists learned from exploring plumes on **Saturn’s moon Enceladus** – that material in plumes becomes ionised and leaves a characteristic blip in the magnetic field – they knew what to look for. Scientists detected a brief, localised bend in the magnetic field that had never been explained.
6. They layered the magnetometry and plasma wave signatures into new 3D modelling developed at the University of Michigan in the US, which simulated the interactions of plasma with solar system bodies.
7. The final ingredient was the data from Hubble that suggested dimensions of potential plumes. The result that emerged, with a simulated plume, was a match to the magnetic field and plasma signatures the team pulled from the Galileo data.
8. The findings are good news for the Europa Clipper mission, which may launch as early as June 2022, NASA said.
9. From its orbit of Jupiter, Europa Clipper will sail close by the moon in rapid, low-altitude flybys, it said. **If plumes are indeed spewing vapour from Europa’s ocean or subsurface lakes, Europa Clipper could sample the frozen liquid and dust particles.**

About Europa	
1.	Europa is the smallest of the four Galilean moons orbiting Jupiter, and the sixth-closest to the planet.
2.	It is also the sixth-largest moon in the Solar System.
3.	Europa was discovered in 1610 by Galileo Galilei and was named after Europa, the legendary mother of King Minos of Crete and lover of Zeus (the Greek equivalent of the Roman god Jupiter).
4.	Europa is primarily made of silicate rock and has a water-ice crust and probably an iron–nickel core.
5.	It has a tenuous atmosphere composed primarily of oxygen. Its surface is striated by cracks and streaks, whereas craters are relatively rare.

SCIENTISTS DECODE THE SUN’S DEATH

The Sun will turn into a massive ring of luminous, interstellar gas and dust, known as a planetary nebula, approximately 10 billion years from now, scientists say. A planetary nebula marks the end of 90 per cent of all stars active lives and traces the **star’s transition from a red giant to a degenerate white dwarf. However, for years, scientists were not sure if the Sun in our galaxy would follow the same fate: it was thought to have**

too low mass to create a visible planetary nebula. To find out the team developed a new stellar, data-model that predicts the lifecycle of stars.

What

1. The model was used to predict the brightness (or luminosity) of the ejected envelope, for stars of different masses and ages. When a star dies it ejects a mass of gas and dust – known as its envelope – into space. The envelope can be as much **as half the star's mass**, said Albert Zijlstra from the University of Manchester in the UK.
2. This reveals **the star's core, which by this point in the star's life is running out of fuel**, eventually turning off and before finally dying.
3. It is only then the hot core makes the ejected envelope shine brightly for around 10,000 years – a brief period in astronomy. This is what makes the planetary nebula visible.
4. Some are so bright that they can be seen from extremely large distances measuring tens of millions of light years, where the star itself would have been much too faint to see.
5. The model, described in the journal Nature Astronomy, solves another problem that has been perplexing astronomers for a quarter of a century.
6. About 25 years ago astronomers discovered that if you look at planetary nebulae in another galaxy, the brightest ones always have the same brightness.
7. It was found that it was possible to see how far away a galaxy was just from the appearance of its brightest planetary nebulae. In theory, it worked in any of type galaxy.
8. The new models show that after the ejection of the envelope, the stars heat up three times faster than found in older models.
9. This makes it much easier for a low mass star, such as the Sun, to form a bright planetary nebula. The team found that in the new models, the Sun is almost exactly the lowest mass star that still produces a visible, though faint, planetary nebula. Stars even a few per cent smaller do not.

NEW MAGNETIC PROCESS IN SPACE

Scientists have discovered a new type of magnetic event in our near-Earth environment, by using data provided by a NASA spacecraft. Magnetic reconnection is one of the most important processes in the space – filled with charged particles known as plasma – around Earth, said researchers at the University of California, Berkeley in the US.

What

1. This fundamental process dissipates magnetic energy and propels charged particles, both of which contribute to a dynamic space weather system that scientists want to better understand, and even someday predict, as we do terrestrial weather.
2. Reconnection occurs when crossed magnetic field lines snap, explosively flinging away nearby particles at high speeds. The new discovery, published in the journal Nature, found reconnection where it has never been seen before – in turbulent plasma.
3. In the plasma universe, there are two important phenomena: magnetic reconnection and turbulence. This discovery bridges these two processes.
4. Magnetic reconnection has been observed innumerable times in the magnetosphere – the magnetic environment around Earth – but usually under calm conditions.
5. The new event occurred in a region called the magnetosheath, just outside the outer boundary of the magnetosphere, where the solar wind is extremely turbulent.
6. **NASA's** Magnetospheric Multiscale spacecraft (MMS) uses four identical spacecraft flying in a pyramid formation to study magnetic reconnection around Earth in three dimensions.

SOI SIGN FOR AI ECOSYSTEM IN INDIA

Aiming to **foster growth for India's nascent artificial intelligence (AI) and machine learning (ML) ecosystem**, NITI Aayog and Google have come together to work on a range of initiatives to help build the AI ecosystem across the country. A Statement of Intent (SoI) was signed to this effect by Ms. Anna Roy, Advisor, NITI Aayog and Shri Rajan Anandan, Vice President, India and South East Asia, Google in the presence of the Shri Amitabh Kant, CEO, NITI Aayog.

What

1. The NITI Aayog has been entrusted to setup a national programme to conduct research and development in frontier technologies such as AI.
2. In furtherance of this mandate, NITI Aayog has been developing India's **national** strategy on AI along with the National Data and Analytics Portal to enable the wide deployment and use of AI.
3. Highlighting the importance of this partnership, "Artificial Intelligence is going to disrupt the way business is done and India, in particular, is uniquely poised in utilising AI to innovate for social and inclusive good.
4. India is embracing future technologies such as machine learning and AI to augment its capacity in healthcare, improve outcomes in education, develop innovative governance systems for our citizens and improve overall economic productivity of the nation.
5. NITI's partnership with Google will unlock massive training initiatives, support startups and encourage AI research through PhD scholarships, all of which contributes to the larger idea of a technologically-empowered New India.
6. Under the aegis of this program, Google will train and incubate Indian AI startups in an accelerator program. These startups will be mentored and coached by Google and its affiliates to enable them to better leverage AI in their respective business models.
7. To help bolster the research ecosystem, one of the initiatives includes funding Indian researchers, scholars and university faculty for conducting AI-based research.
8. NITI Aayog and Google will organize a AI/ML hackathon that will be focused on solving key challenges within agriculture, education, healthcare, financial inclusion, transportation/mobility and more.
9. This hackathon may use Kaggle, a global platform, to help facilitate international participation into these planned hackathon challenges.

Google and NITI Aayog will work on the following initiatives:

1. Organise trainings for relevant government functionaries to introduce them to open source AI tools with the goal of enabling more effective governance.
2. Awarding grants and scholarships to researchers, scholars and university faculty conducting cutting edge research in the field of AI/ML in India.
3. Organising AI/ML study jams for students and developers based on **Google's Machine Learning Crash Course (MLCC)** on the fundamentals of machine learning
4. Incubating Indian AI/ML startups in a program where they will be mentored by Google to better leverage AI in their respective business models.
5. Organise a Hackathon focused on using AI/ML and open data sets to solve key challenges within agriculture, education, healthcare, etc. in India

NEW ANTIBODIES FOR EBOLA VACCINE

Scientists have identified three naturally-occurring Ebola antibodies which could be used to design universal therapeutics that are effective against many different species of the deadly virus. The Ebola virus causes a severe illness with high mortality rates in humans, according to the study published in the journal 'Nature Microbiology'. Signs and

symptoms typically start between two days and three weeks after contracting the virus with a fever, sore throat, muscular pain, and headaches.

What

1. Several strategies have been developed to treat Ebola infection, including ZMapp, which has been shown to be effective in non-human primates and has been used under compassionate-treatment protocols in humans.
2. The trouble with ZMapp is that although it is effective against the Ebola species that was largely responsible for the last Ebola outbreak, it does not neutralise other Ebola species, including Ebola Bundibugyo, Reston or Sudan, said Alex Bukreyev, a professor at University of Texas Medical Branch at Galveston in the US.
3. The newly identified antibodies bond at a different site on the Ebola virus than other antibodies currently used to develop Ebola therapies.
4. Ebola was first discovered in 1976 near the Ebola River in what is now the Democratic Republic of Congo.
5. Since then, the virus has been infecting people from time to time, leading to outbreaks in several African countries.

NASA'S CARBON MONITORING PROJECT CANCELLED

US President Donald Trump's administration has cancelled **NASA's Carbon Monitoring System (CMS)** programme citing reasons of budget constraints and higher priorities within science budget. It was also in line with Donald Trump's latest broad attack on climate science.

What

1. **NASA's CMS Programme costing \$10 million per year** was meant to track carbon and methane, key greenhouse gases that contribute to global warming.
2. It also tracked sources and sinks for carbon and made high-resolution models of **planet's flows of carbon**.
3. It was designed to make significant contributions in characterizing, quantifying, understanding and predicting evolution of global carbon sources and sinks through improved monitoring of carbon stocks and fluxes.
4. The System uses full range of NASA satellite observations, modelling and analysis capabilities to establish accuracy, quantitative uncertainties and utility of products for supporting national and international policy, regulatory and management activities.
5. CMS also maintains global emphasis while providing finer scale regional information, utilizing space-based and surface-based data. It had initiated generation and distribution of products both for user evaluation and to inform near-term policy development and planning.

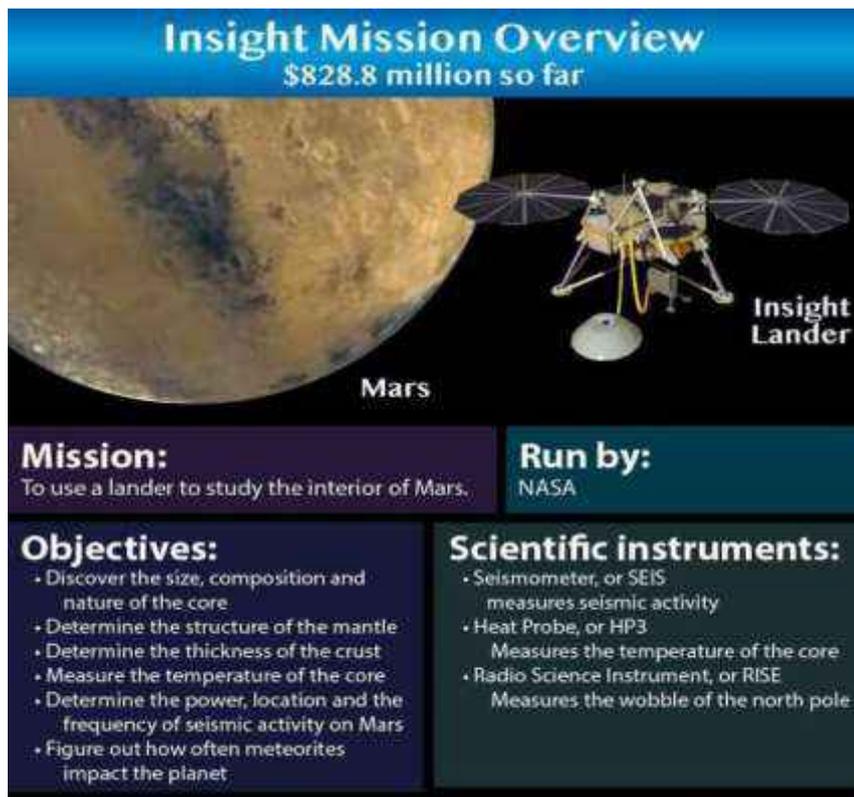
INSIGHT MISSION

NASA launched first-ever InSight (Interior Exploration using Seismic Investigations, Geodesy and Heat Transport) lander dedicated to exploring the deep interior of Mars. It was launched aboard United Launch Alliance (ULA) Atlas V rocket from Space Launch Complex-3 at Vandenberg Air Force Base in California. The rocket also launched two mini-spacecraft called Mars Cube One (MarCO) — MarCO-A and MarCO-B.

What

1. InSight is solar and battery-powered terrestrial planet explorer (robotic lander) that aims to address one of most fundamental issues of planetary and solar system science.
2. It will help in understanding processes that shaped rocky planets of inner solar system (including Earth) more than four billion years ago.
3. The lander is expected to land on Mars in November 2018.
4. The mission was envisaged as **part of NASA's Discovery Program mission** that aims to place stationary lander equipped with seismometer and heat transfer probe on **surface of Mars to study red planet's early geological evolution**.

5. The lander is designed to operate for 26 Earth months, or one year on Mars.
6. The robotic lander will perform a radio science experiment to study internal structure of Mars by deploying Seismic Experiment for Interior Structure (seismometer) and Seismic Experiment for Interior Structure (burrowing heat probe).
7. It will measure **Mar's vital signs** such as pulse (seismology),



Insight Mission Overview
\$828.8 million so far

Mars

Insight Lander

Mission:
To use a lander to study the interior of Mars.

Run by:
NASA

Objectives:

- Discover the size, composition and nature of the core.
- Determine the structure of the mantle
- Determine the thickness of the crust
- Measure the temperature of the core
- Determine the power, location and the frequency of seismic activity on Mars
- Figure out how often meteorites impact the planet

Scientific instruments:

- Seismometer, or SEIS
measures seismic activity
- Heat Probe, or HP3
Measures the temperature of the core
- Radio Science Instrument, or RISE
Measures the wobble of the north pole.

- temperature (heat flow probe) and reflexes (precision tracking).
8. It will let scientists understand how different its crust, mantle and core are from Earth.
9. MarCO consists of two briefcase-sized CubeSats that will fly on their own path to Mars behind InSight lander, but is independent of InSight mission.
10. They are first test of CubeSat technology in deep space or at another planet. They are designed to test new communications and navigation capabilities for future missions and may aid InSight communications.
11. If successful, MarCOs will offer new kind of communication capability to deep space missions to Earth.

MISCELLANEOUS

WHO'S 20 MOST-POLLUTED CITIES

Delhi and Varanasi are among the 14 Indian cities that figured in a list of 20 most polluted cities in the world in terms of PM2.5 levels in 2016, data released by the WHO showed on 2 May 2018. The WHO data also said that nine out of 10 people in the world breathe air containing high levels of pollutants. Other Indian cities that registered very high levels of PM2.5 pollutants were Kanpur, Faridabad, Gaya, Patna, Agra, Muzaffarpur, Srinagar, Gurgaon, Jaipur, Patiala and Jodhpur followed by Ali Subah Al-Salem in Kuwait and a few cities in China and Mongolia. In terms of PM10 levels, 13 cities in India figured among the 20 most-polluted cities of the world in 2016.

What

1. The World Health Organisation has called upon member-countries in its Southeast Asia Region to aggressively address the double burden of household and ambient (outdoor) air pollution, saying the region, which comprises India, accounts for 34 per cent or 2.4 million of the seven million premature deaths caused by household and ambient air pollution together globally every year.
2. Of the 3.8 million deaths caused by household air pollution globally, the region accounts for 1.5 million or 40 per cent deaths, and of the 4.2 million global deaths due to ambient air pollution, 1.3 million or 30 per cent are reported from the region, it

- said. The PM2.5 includes pollutants like sulfate, nitrate and black carbon, which pose the greatest risk to human health.
3. **WHO's global urban air pollution database measured the levels of fine particulate matter (PM10 and PM2.5)** from more than 4,300 cities in 108 countries, according to which ambient air pollution alone caused some 4.2 million deaths in 2016, while household air pollution from cooking with polluting fuels and technologies caused an estimated 3.8 million deaths in the same period.
 4. **Since 2016, over 1,000 additional cities have been added to WHO's database**, which shows more countries are measuring and taking action to reduce air pollution than ever before.
 5. According to the report, more than 90 per cent of air pollution-related deaths occur in low- and middle-income countries (including India), mainly in Asia and Africa, followed by low- and middle-income countries of the Eastern Mediterranean region, Europe and the Americas.
 6. Around 3 billion people — more than **40 per cent of the world's population** — still do not have access to clean cooking fuels and technologies in their homes, the main source of household air pollution.

WORLD PRESS FREEDOM DAY

May 3 is celebrated as World Press Freedom Day every year to celebrate fundamental principles of press freedom as well as to evaluate freedom of press around the world. It serves as occasion to defend media from attacks on their independence and to pay tribute to journalists who died while doing their profession.

What

1. The theme for year 2018 is **'keeping Power in Check: Media, Justice and The Rule of Law'**.
2. It highlights importance of enabling legal environment for press freedom and gives special attention to role of independent judiciary in ensuring legal guarantees for press freedom and prosecution of crimes against journalists.
3. It also addresses role of media in sustainable development, especially during elections as watchdog fostering transparency, accountability and rule of law.
4. It also explore legislative gaps with regard to freedom of expression and information online, and risks of regulating online speech

Flashback

1. World Press Freedom Day was proclaimed by United Nations General Assembly (UNGA) in December 1993, following the recommendation adopted at 26th Session of **UNESCO's General Conference** in 1991.
2. This recommendation was a response to a call given by African journalists who in 1991 produced landmark Windhoek Declaration on media pluralism and independence.
3. Since then 3 May, is observed as anniversary of Declaration of Windhoek and is celebrated worldwide as World Press Freedom Day.

DST CELEBRATES ITS FOUNDATION DAY

Union Minister for Science & Technology and Earth Sciences Dr. Harsh Vardhan on 3 May 2018 laid the foundation stone of New State of Art Building of DST. Construction of new state of the art building should be completed by 3rd May, 2021 when DST will **celebrate its Golden Jubilee**” said Dr Harsh Vardhan. He also expressed his happiness as environment Minister as New building follows all green building norms and he insisted that latest norms should be followed during construction.

What

1. DST, one of the three departments of Ministry of Science & Technology, was established on 03rd May, 1971 with the express objective of exploring and developing new areas of S&T, to strengthen national Science & Technology capacity and capability, cutting across institutions and disciplines.

2. The existing DST Complex known as Technology Bhawan was constructed and used for storage of food-grains by US Aid Agency under PL-480 “Public Law-480”.
3. **PL-480 is an “Agricultural Trade Development Act” signed into Law on 10th July 1954** by President Dwight D. Eisenhower.
4. Prior to that, US extended food aid to countries experiencing natural disaster and provided aid in time of war, but not as a permanent program.
5. **In 1961, President John F. Kennedy renamed it as “Food for Peace”.** In India, this programme was operative for the period from 1961 to 1969. After closure of the scheme in India, the assets created by US Aid Agency were agreed to be handed over to Govt. of India on 17th February 1970. Department of Science and Technology moved into these buildings on 3rd May 1971.
6. There was an unfortunate fire incident in 2013 causing a great loss of property to the building of DST. This necessitated construction of a new building for DST within the campus of 8.87 Acres at Technology Bhawan.
7. Accordingly, DST has entered into a Memorandum of Understanding with IRCON Infrastructure & Services LTD (A Government of India Undertaking, under Ministry of Railways). The new building will accommodate two departments of Ministry of Science and Technology, namely, DST & DSIR and also a few Autonomous Institutes such as SERB, TIFAC, TDB and VigyanPrasar located at Delhi.

SC REJECTS GOVT'S PLEA ON ST/ST ACT

The Supreme Court (SC) on 3 May 2018 rejected the Centre's demand for a stay on its verdict on the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act of 1989 or SC/ST Act and said it favoured "100 per cent" the protection of the rights of these communities and punishing those guilty of atrocities against them. The Centre had earlier demanded a stay on SC order on SC/ST Act. The debate in the matter will continue on May 16.

What is SC/ST Act?

1. The SC/ST Act protects people belonging to those communities against any discrimination and atrocities.
2. On March 20, the Supreme Court ruled that there was no absolute bar on granting an anticipatory bail under the Act.
3. The apex court said that to prevent the harassment of government servants it was prudent to have a high ranking officer to first ascertain whether the facts add up to demand an arrest.
4. The March 20 judgement had also banned immediate arrest on the basis of complaints of atrocities against Dalits, and had said that only those complaints, **which are found to be ‘absurd’ or ‘absolutely frivolous’ would be investigated.**
5. The SC judgement had further spelt out that prior sanction must be taken from the concerned authority before arresting any government official. If the accused is a private individual, prior permission must be sought from the deputy commissioner, added the SC, according to media reports.

SC clears air on anticipatory bail

1. The top court said under the Scheduled Castes and Tribes (Prevention of Atrocities) Act, 1989, theoretically a person cannot get anticipatory bail, but soon after his arrest, he can get regular bail even in offences where the punishment is just six months.
2. The anticipatory bail provision was not there in laws like TADA and MCOCA, where the offences were supposed to be of greater magnitude. If there is a grave offence, this judgement will not come in the way of arrest.
3. It clarified that the court has not asked for non-registration of an FIR for the offences under the SC/ST Act, but sought verification before registration of FIR, so that innocents do not get penalised.

NOBEL LITERATURE PRIZE 2018 POSTPONED

The Swedish Academy said on 4 May 2018 it would postpone this year's Nobel Literature Prize for the first time in almost 70 years, as it is rocked by turmoil over links to a man accused of rape and sexual assault. The Swedish Academy intends to decide on and announce the Nobel Prize in Literature for 2018 in parallel with the naming of the 2019 laureate.

What

1. The institution, founded in 1786, has on seven previous occasions chosen to reserve the prize: in 1915, 1919, 1925, 1926, 1927, 1936 and 1949.
2. On five of those occasions, the prize was delayed then awarded at the same time as the following year's prize.
3. The body has been plunged in crisis since November, in the wake of the global #MeToo campaign, when Swedish newspaper of reference Dagens Nyheter published the testimonies of 18 women claiming to have been raped, sexually assaulted or harassed by Jean-Claude Arnault, an influential figure on the Swedish culture scene.
4. The revelations have sowed discord among the Academy's 18 members about how to move forward, and in recent weeks, six of them have chosen to resign, including permanent secretary Sara Danius.
5. The active members of the Swedish Academy are of course fully aware that the present crisis of confidence places high demands on a long-term and robust work for change.

MONSANTO MOVES APEX COURT ON BT COTTON

US-based agro major Monsanto Technology moved the Supreme Court against a Delhi High Court order dismissing its plea to enforce the patent for its BT cotton seeds in India. An apex court bench comprising justices Rohinton Fali Nariman and Abhay Manohar Sapre will take up the matter on May 7.

What

1. The firm moved the apex court against the April 11 order by which its plea was dismissed by the high court, which had partially allowed the counter-claims of three Indian seed companies that Monsanto does not have a patent for its BT cotton seeds, a genetically modified variant which resist bollworms.
2. The court had also upheld the decision of a single judge on the issue of trait fee payable to Monsanto by the companies -- Nuziveedu Seeds Ltd, Prabhat Agri Biotech Ltd and Pravardhan Seeds Private Ltd -- under the sub-licence with them.
3. The single judge had said that the Indian companies would pay trait fees to Monsanto according to government-set rates.
4. Monsanto wanted to charge a higher rate of trait fee under the sub-licence given to Indian companies to use its seed technology.
5. Both sides had challenged **the single judge's order before the division bench.**

NATIONAL TECHNOLOGY DAY

National Technology Day is being observed across India on May 11 to mark **India's technological advancements and to promote the development of technology** in various fields. The official theme for this year is "Science and Technology for a Sustainable Future".

What

1. The day is being commemorated to celebrate the anniversary of first of the five nuclear tests of Operation Shakti (Pokhran-II) nuclear test, held from 11 to 13 May 1998 in Pokhran, Rajasthan.
2. The operation was led by former President APJ Abdul Kalam, who was then Director of Defence Research and Development Organisation (DRDO)
3. After conducting nuclear tests as part of Pokhran-II, India was declared as nuclear state by then Prime Minister Atal Bihari Vajpayee, making it sixth nation to join

- 'nuclear club' of nations as well as first country which was not a part of Non-Proliferation of Nuclear Weapons Treaty (NPT).
4. India also conducted successful test firing of Trishul missile on May 11, 1998.
 5. Trishul missile was developed as part of Integrated Guided Missile Development Programme (IGMDP) by DRDO.
 6. Trishul Missile got inducted by Indian Army and Indian Airforce. Moreover, Hansa 3, **India's first indigenous aircraft was also first** tested on May 11, 1998 in Bangalore.
 7. It was first of its kind general aviation two-seater plane used for flight training as well as personal flying.
 8. To commemorate this day, Technology Development Board (TDB) has instituted National Award.
 9. This award is conferred on to various individuals and industries by the President for their successful achievement in commercialization of Indigenous Technology.

INDIA'S MOST TRUSTED FMCG BRAND

Baba Ramdev's flagship company, Patanjali, beat around 1,000 of India's top FMCG companies to emerge as the most trusted brand in the sector, as per TRA's Brand Trust Report 2018.

What

1. The TRA study was conducted among 2,500 consumer influencers across 16 cities.
2. TRA (earlier Trust Research Advisory) has been conducting such studies since 2011.
3. The Patanjali Ayurved Limited was established in 2006 by Ramdev, along with Acharya Balkrishna, with the objective of establishing a science of Ayurveda in accordance and coordination with the latest technology and ancient wisdom.

NWIC LAUNCHED

The government has set up a central body - National Water Informatics Centre (NWIC) - to maintain a comprehensive water resources data. It will be a single window source of updated data on water resources in India. The NWIC will also collaborate with leading national and international research institutes to provide technical support to central and state organisations dealing with water emergency response of hydrological extremes.

What

1. Since scientific data is needed to take any decision, the Union cabinet had recently approved setting up such a body which can provide value-added products and services to all stakeholders for management and sustainable development of water resources in the country.
2. The NWIC will work under the Union water resources ministry as its subordinate office. **It'll be headed by a joint secretary level officer.**
3. The management of water resources is a highly complex and tedious task that involves the expertise in multi-disciplinary domains. It also depends on historical and real-time reliable data and information.
4. For this, the first requirement is to develop, maintain and update regularly a **comprehensive 'Water Resources Information System' (WRIS) in public domain for awareness and involvement of all concerned for effective integrated water resources management**", said the ministry in a statement.

STATES WITH LOWEST UNEMPLOYMENT RATES

Karnataka has amongst India's best economic and child health outcomes, but women's empowerment lags some of India's poorest states, according to an IndiaSpend analysis of national data. Ahead of the election to the state's assembly on May 12, 2018, we compared Karnataka's performance on 15 socio-economic and health-related indicators-sourced from National Family Health Surveys 2005-06 (NFHS

3) and 2015-16 (NFHS 4), Ministry of Statistics & Programme Implementation and Ministry of Labour and Employment—with nine other states.

Some highlights:

1. Among the states, **Karnataka has the country's second lowest unemployment rate**, behind only Gujarat. Karnataka's per capita income ranks fourth among the 10 states considered for the analysis;
2. **Karnataka's infant mortality rate declined from 43.2 deaths per 1,000 live births** in 2005-06 to 26.9 in 2015-16, ranking fifth among the 10 states analysed;
3. In 2015-16, 49.3% women in Karnataka were involved in household decision-making, better only than Bihar, Telangana and Mizoram;
4. In 2015-16, 62.6% children (12-23 months) in Karnataka received all basic vaccinations, up from 55% in 2005-06. Karnataka ranks fifth among the 10 states considered for the analysis.
5. For our analysis, we chose south Indian states Tamil Nadu, Andhra Pradesh and Kerala, development leaders Goa, Gujarat and Maharashtra and laggards Madhya Pradesh, Rajasthan and Uttar Pradesh.
6. Of the other nine states, six—Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh, Goa and Gujarat—currently have BJP governments. Kerala has the government of Left Democratic Front, while Tamil Nadu and Andhra Pradesh are ruled by the All India Anna Dravida Munnetra Kazhagam and Telugu Desam Party, respectively.
7. In 2015-16, **Karnataka's infant mortality rate (IMR)**—the probability that a child born in a particular year will die before reaching the age of one—was 26.9 per 1,000 live births, down from 43.2 in 2005-06. Karnataka's IMR was lower than the national average (40.7) and ranked fifth among the 10 states considered for the analysis.
8. **At 31.5 deaths per 1,000 live births, the state's under-five mortality rate** also ranked fifth among the 10 states—worse than Kerala, Goa, Tamil Nadu and Maharashtra.
9. In 2015-16, 62.6% children—just above the national average of 62%—aged 12-23 months received all basic vaccinations in Karnataka, up from 55% in 2005-06, according to national health data.

1998 POKHRAN TESTS

Twenty years ago on 11 May 2018, a sudden announcement by then Prime Minister Atal Bihari Vajpayee and his national security adviser, Brajesh Mishra, turned **India's world upside down**. On 11th and 13th May, India conducted a set of five nuclear tests, stunning the world. Those tests set India on a road that led to a global acknowledgement of India not merely a nuclear power. Very simply, it helped to get the global high table to make space for India.

What

1. Rakesh Sood, former diplomat and someone who was involved in the post-nuclear tests diplomacy, said India had three objectives.
2. First was to validate new designs to ensure the credibility of the nuclear deterrent as the data set from the 1974 test was limited.
3. Second was to declare that India was now a nuclear weapon state and modify the terms of our engagement with other states accordingly.
4. Third was to generate an acceptance of India as a responsible state with an impeccable non-proliferation record.
5. The nuclear tests announcement was followed closely by a massive global outreach by India, starting with the US. The first response was outright condemnation issued from every multilateral platform.
6. But in a counter-intuitive action, then foreign minister Jaswant Singh and US deputy secretary Strobe Talbott began a conversation — that led to a whole new relationship being built between US and India.
7. It was counterintuitive, but the 1998 nuclear tests began the process for the world to acknowledge India as a responsible nuclear power.

8. It was something Indian strategists said ad infinitum, that from 1974 despite decades of economic and technological sanctions, India had remained true to the highest NPT standards despite being an NPT outlier.
9. Two decades on, Pokhran 2 culminated in the India-US nuclear deal, membership of three of four global non-proliferation regimes and a waiver from the NSG, doors that had been closed to India.

RENOWNED THEORETICAL PHYSICIST PASSES AWAY

Acclaimed scientist Ennackal Chandy George Sudarshan, popularly known as E C G Sudarshan, passed away in Texas on 14 May 2018. The 86-year-old physicist was nominated for the Nobel Prize in Physics nine times. Sudarshan was a professor at the University of Texas for the past 40 years and had made numerous contributions including optical coherence, Quantum zero effect, Sudarshan-Glauber representation, V-A theory among others.

What

1. He was honoured with several awards like ICTP Dirac Medal, Padma Vibhushan (2007), Padma Bhushan, Majorana Prize, TWAS Prize, Bose Award (1977) and C V Raman Award (1970) among other awards.
2. The world-renowned scientist made path-breaking discoveries in the realm of quantum optics in a career spanning five decades.
3. **Sudarshan was also the first to prove wrong Albert Einstein's theory** that 'Nothing moves faster than light' and proposed the existence of Tachyons, the particles that move faster than light.
4. **Born in Kerala's Kottayam, Sudarshan was born to E I Chandy and Achamma on September 16, 1931.** He graduated from the Madras Christian College and then did his post-graduation from the University of Madras. After completing his masters, he also worked briefly with the Father of the Indian Nuclear Programme, Homi J. Bhabha, at the Tata Institute of Fundamental Research, Mumbai.

NEPAL TO HOST 2018 BIMSTEC SUMMIT

Nepal is going to host 2018 Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) summit. **It was announced by Nepal's Prime Minister KP Sharma Oli** during his meeting with Indian Prime Minister Narendra Modi in Kathmandu (capital city).

What

1. BIMSTEC is the sub-regional group of seven countries in South Asia and South East Asia lying in the littoral and adjacent areas of the Bay of Bengal constituting a contiguous regional unity.
2. BIMSTEC countries are India, Nepal, Bangladesh, Bhutan, Sri Lanka from South Asia and Myanmar, Thailand from South East Asia.
3. They are collectively home to around 1.5 billion people which constitute around 22% of global population.
4. BIMSTEC was established on 6 June 1997 through the Bangkok Declaration.
5. It is headquartered in Dhaka, Bangladesh. Its prime objectives include technological and economic cooperation among south Asian and south East Asian countries along the coast of the Bay of Bengal.
6. It is sector-driven cooperative organization, starting with six sector including trade, technology, energy, transport, tourism and fisheries.
7. In 2008, it was expanded to embrace eight more sectors including agriculture, public health, poverty alleviation, counter-terrorism, environment, culture, people to people contact and climate change.