

My Notes...

NATIONAL

FIRST BIOFORTIFIED SORGHUM

India's first biofortified sorghum (jowar), with significantly higher iron and zinc than regular sorghum, was formally launched on 5 July 2018. Developed by ICRISAT, it was released for cultivation by Vasantrya Naik Marathwada Krishi Vidyapeeth (VNMKV), Maharashtra. The improved variety ICSR 14001, released as 'Parbhani Shakti' by VNMKV, offers a cost-effective and sustainable solution to address micronutrient deficiency. An MoU was signed between ICRISAT and VNMKV for large-scale seed production and dissemination.

What

1. VNMKV said the initiative offers a solution to a major concern like high anaemia rates among women and children in India. Extensive studies on Parbhani Shakti were carried out on our research fields and we are happy to partner in efforts that will have a bigger impact.
2. Biofortification is an important approach we take as it is cost-effective and sustainable. It addresses hidden hunger with no additional cost to its regular consumers and often sorghum is the cheapest cereal available in the market.
3. Parbhani Shakti developed through several years of work through conventional breeding has an average grain Fe concentration of 45 ppm and Zn 32 ppm.
4. This is considerably higher than varieties that are currently being cultivated in India which have about 30 ppm Fe and 20 ppm Zn. Besides it has higher protein (11.9 per cent) and low phytate content (4.14 mg/100g) compared to 10 per cent protein and 7.0 mg/100g phytates content in most sorghum cultivars. Low-phytate means increased bioavailability of nutrients.
5. This improved sorghum variety was developed by ICRISAT under HarvestPlus - sorghum biofortification project and was tested as PVK 1009 in Maharashtra state and in All India Co-ordinated Sorghum Improvement Project (AICSIP) Trials.
6. It was released as a rainy season variety (Kharif) but it can be grown in post-rainy (Rabi) and summer seasons. The yield levels are higher (>5.0 t ha⁻¹) in post-rainy and summer seasons with irrigation.
7. When grown in summer season, it can tolerate higher temperatures (41°C) at flowering and seed setting but the flowering may be delayed (80 days).

**India's first biofortified Jowar
(sorghum) developed by ICRISAT -
(International Crops Research Institute for Semi-Arid Tropics)**



- ICRISAT-bred biofortified sorghum line ICSR 14001
- To be officially launched on July 5
- Is a double fortified variety that gives more iron and zinc
- Boon to millions of people suffering from anaemia due to iron deficiency in India
- Proved superior under on-farm testing
- And under testing by the All India Coordinated Sorghum Improvement Project (AICSIP)

VIKAS ENGINE SUCCESSFULLY TESTED

The Indian Space Research Organisation on 15 July 2018 said a high thrust version of the Vikas Engine was successfully qualified through a ground test for a duration of 195 seconds at Isro Propulsion Complex (IPRC) in Tamil Nadu's Mahendragiri, moving a step closer for use in Geosynchronous Launch Vehicle MK-III (GSLV MK-III).

What

1. Vikas Engine is the workhorse liquid rocket engine powering the second **stage of India's Polar** Satellite Launch Vehicle (PSLV), second stage and the four straps on stages of Geosynchronous Launch Vehicle (GSLV) and the twin engine core liquid stage (L110) of GSLV Mk-III.
2. All the propulsion parameters during the tests were found satisfactory and closely matched the predictions, Isro said.
3. This ground test has validated the performance adequacy of the Vikas Engine for its use in the upcoming second developmental flight of GSLV Mk-III.
4. This engine will improve the payload capability of PSLV, GSLV and GSLV Mk-III launch vehicles.
5. ISRO is planning to launch GSLV-MkIII-D2 during the second half of 2018 carrying GSAT-29.
6. It carries multi-beam and optical communication payloads for the first time. The mission is targeted for Village Resource Centres in rural areas to bridge the digital divide.

Flashback

1. Vikas Engine is a liquid fuelled rocket engine indigenously developed by ISRO, India.
2. It is used in the PSLV and GSLV vehicles for space launching satellites Vikas engines are employed in the second stage of **India's Polar Satellite Launch Vehicle** (PSLV) as well as the second and the four strap-on stages of the Geo-synchronous Satellite Launch Vehicle (GSLV).
3. The engine uses UH25 (a mixture of unsymmetrical di-methyl hydrazine and hydrazine hydrate) as fuel and nitrogen tetroxide as oxidiser with maximum thrust of about 725 kN.

DNA TECHNOLOGY REGULATION BILL 2018 APPROVED

The Union Cabinet chaired by Prime Minister has approved The DNA Technology (Use and Application) Regulation Bill 2018. The primary intended purpose for enactment of "The DNA Technology (Use and Application) Regulation Bill" is for expanding the application of DNA-based forensic technologies to support and strengthen the justice delivery system of the country.

What

1. The utility of DNA based technologies for solving crimes, and to identify missing persons, is well recognized across the world.

Flashback

1. Forensic DNA profiling is of proven value in solving cases involving offences that are categorized as affecting the human body (such as murder, rape, human trafficking, or grievous hurt), and those against property (including theft, burglary, and dacoity).
2. The aggregate incidence of such crimes in the country, as per the statistics of the National Crime Records Bureau (NCRB) for 2016, is in excess of 3 lakhs per year.
3. Of these, only a very small proportion is being subjected to DNA testing at present.
4. It is expected that the expanded use of this technology in these categories of cases would result not only in speedier justice delivery but also in increased conviction rates, which at present is only around 30% (NCRB Statistics for 2016).

2. By providing for the mandatory accreditation and regulation of DNA laboratories, the Bill seeks to ensure that with the proposed expanded use of this technology in the country, there is also the assurance that the DNA test results are reliable and the data remain protected from misuse or abuse in terms of the privacy rights of our citizens.
3. Bill's provisions will enable the cross-matching between persons who have been reported missing on the one hand and unidentified dead bodies found in various parts of the country on the other, and also for establishing the identity of victims in mass disasters.

COPYRIGHT TREATIES GET NOD

The Union Cabinet chaired by Prime Minister Shri Narendra Modi has approved the proposal

submitted by Department of Industrial Policy and Promotion, Ministry of Commerce and Industry regarding accession to the WIPO Copyright Treaty and WIPO Performers and Phonograms Treaty which extends coverage of copyright to the internet and digital environment. The approval is a step towards the objective laid in the National Intellectual Property Rights (IPR) Policy adopted by the Government on 12th May 2016 which aims to get value for IPRs through commercialization by providing guidance and support to IPR owners about commercial opportunities of e-commerce through Internet and mobile platforms.

Flashback

1. After the administration of Copyright Act 1957 was transferred to DIPP in March 2016, a study was initiated to examine compatibility of Copyright Act 1957 with WCT and WPPT. Also a joint study was undertaken with WIPO.
2. The Copyright Act, 1957 was amended in 2012 to bring it in conformity, with WCT and WPPT, includes amendment in definition of "Communication to the public" to make it applicable to digital environment (Section 2(ff)) as also introduced provisions related to Technological Protection Measures (Section 65A) & Rights Management Information (Section 65B); Moral rights of performers (Section 38B); Exclusive rights of the performers (Section 38A); safe harbour provisions over electronic medium (Section 52 (1) (b) and (c)),
3. WIPO Copyright Treaty came in force on March 6, 2002 and has been adopted by 96 contracting parties till date and is A Special agreement under Berne Convention (for protection of literary and artistic works).
4. It has provisions to extend the protection of copyrights contained therein to the digital environment. Further it recognises the rights specific to digital environment, of making work available, to address "on-demand" and other interactive modes of access,
5. WIPO Performances and Phonograms Treaty came in force on May 20, 2002 and has 96 contracting parties as its members.
6. WPPT deals with rights of two kinds of beneficiaries, particularly in digital environment - (i) Performers (actors, singers, musicians etc.) (ii) Producers of Phonograms (Sound recordings). The treaty empowers right owners in their negotiations with new digital platforms and distributors. It recognizes moral rights of the performers for the first time & provides exclusive economic rights to them.
7. Both the treaties provide framework for creators and right owners to use technical tools to protect their works and safeguard information about their use i.e. Protection of Technological Protection Measures (TPMs) and Rights Management Information (RMI).

1. Meeting the demand of the copyright industries, these treaties will help India:

2. To enable creative right-holders enjoy the fruit of their labour, through international copyright system that can be used to secure a return on the investment made in producing and distributing creative works
3. To facilitate international protection of domestic rights holder by providing them level-playing field in other countries as India already extends protection to foreign works through the International Copyright order and these treaties will enable Indian right holders to get reciprocal protection abroad
4. To instil confidence and distribute creative works in digital environment with return on investment
5. To spur business growth and contribute to the development of a vibrant creative economy and cultural landscape.

FLIGHT TESTS FOR CREW ESCAPE SYSTEM

The Indian Space Research Organisation on 5 July 2018 successfully carried out a flight test for a newly-designed Crew Escape System, meant for saving lives of astronauts in an exigency. It was the first in a series of tests to ascertain the trustworthiness and efficiency of the Crew Escape System. The system is an emergency measure designed to quickly pull away the crew module along with the astronauts to a safe distance from the launch vehicle if the mission gets aborted.

What

1. **The first ‘Pad Abort Test’ demonstrated the safe recovery of the crew module** in case of any exigency at the launch pad, the Indian Space Research Organisation said in a release.
2. After a smooth five-hour countdown, the Crew Escape System along with the simulated crew module lifted off at 7.00 am from its pad at the Satish Dhawan Space Centre at Sriharikota.
3. The test was over in 259 seconds, during which the Escape System and the module soared skyward, before arching out over the Bay of Bengal and floating back to earth using its parachutes, about 2.9 km from Sriharikota.
4. The ISRO has already conducted technology demonstrator tests of indigenously made Reusable Launch Vehicle (RLV), capable of launching satellites into orbit around Earth and then re-entering the atmosphere.
5. The ISRO said the crew module reached an altitude of nearly 2.7 km under the power of its seven specifically designed quick-acting solid motors to take it away to a safe distance without exceeding the safe g-levels.
6. Nearly 300 sensors recorded various mission performance parameters during the test flight, it said, adding that three boats are being readied to retrieve the module as part of the recovery protocol.

FIRST CHAIRMAN OF RAJYA SABHA TO SIGN AN MOU

Rajya Sabha has, for the first time in 76 years since it came into being, entered into a Memorandum of Understanding (MOU) with a foreign counterpart for promoting inter-parliamentary dialogue. Shri Venkaiah Naidu, has, in the process, become the first Chairman of Rajya Sabha to sign such an agreement when he inked an MOU with the visiting President of the Senate of the Republic of Rwanda, Mr. Bernard Makuza.

What

1. The MOU with 6 articles of cooperation seeks to promote Inter-Parliamentary dialogue, Capacity building of parliamentary staff, Organisation of conferences, forums, seminars, staff attachment programmes, workshops and exchanges, Collaboration in mutual interest in regional and international multilateral parliamentary bodies in furtherance of bilateral relations and friendship between the two countries.
2. Shri Naidu and Mr. Makuza discussed issues of bilateral interest and the opportunities for cooperation for mutual benefit. He complimented the people and the Parliament of Rwanda for having 60% of women legislatures.

3. Shri Naidu complimented Rwanda for being elected as the Chair of the African Union in January this year and for successfully hosting in capital Kigali of the Assembly of the African Union in March that resulted in the signing of the African Continent Free Trade Agreement.
4. The three Senator delegation from Rwanda led by Shri Makuza is the first such a delegation exclusively from the Upper House of any country to visit India.

FIRST BS-VI ENGINE CERTIFICATE

ICAT has completed the first BS-VI certification for a heavy duty engine model for M/s Volvo Eicher Commercial Vehicle Limited. The engine has been developed and manufactured indigenously by Volvo Eicher in India. The successful completion of the compliance test of the engine, much ahead of the implementation date of 1 April, 2020, gives sufficient time for product stabilization in terms of making it more robust and cost competitive for the end consumers.

What

1. The pro-active approach from the Government of India has made the country leapfrog from the conventional BS-IV to directly adopt BS-VI emission norms as the next level for regulatory framework in India.
2. The BS-VI emission standards are much more elaborate in their scope and integrate substantial changes to existing emission standards ensuring cleaner products to the consumer.
3. Besides the more stringent limits on the gaseous emission components, the particulate matter (PM) limits have also been significantly reduced along with the introduction of particle number (PN) limits.

Flashback

1. The International Centre for Automotive Technology (ICAT) is a division of NATRiP implementation society (NATIS), under the administrative control of Ministry of Heavy Industries & Public Enterprises, Government of India.
2. ICAT is the first of new world class centers established under the National Automotive Testing and R&D Infrastructure Project (NATRiP) with the main objective of carrying out Research & Development besides extending homologation facilities in the field of Automotive Engineering.
3. ICAT is one of the prime testing agencies recognized by the Government of India as one of the accredited 'Type Approval and Homologation' agencies in India under Central Motor Vehicle Rules (CMVR) and has also been recognized as Scientific and Industrial Research Organization (SIRO) by the Department of Scientific and Industrial Research (DSIR), since Feb 2010, by BIS for Tyre Testing, Safety Glasses and by Central Pollution Control Board (CPCB) for emission and noise testing of generator sets.
4. ICAT has emerged as a comprehensive technical partner of the automotive industry.

SIX INSTITUTES GET 'EMINENCE' TAG

The HRD Ministry on 10 July 2018 granted **“Institutions of Eminence” status** to three public and three private institutes, enabling them to get full autonomy and special incentives to project them as “world class universities”. While the Human Resource Development (HRD) Ministry will grant Rs 10 billion funds to the three public institutions in the next five years, the private institutes will not be eligible for government funding.

What

1. The government granted **“Institutions of Eminence” (IoEs) status** to IIT-Delhi, IIT-Bombay and the Bengaluru-based Indian Institute of Science (IISc) in the public sector, and Manipal Academy of Higher Education, BITS Pilani and Jio Institute by Reliance Foundation in the private sector.

2. The move is part of a scheme of the HRD Ministry to select 20 IoEs — 10 public and 10 private — that will enjoy complete academic and administrative autonomy.
3. However, the Empowered Expert Committee (EEC), headed by former chief election commissioner N Gopalaswami, picked up six institutions that, according to the panel, showed the potential to find a place among top 500 of global rankings.
4. Unlike other institutions, IoEs will get greater autonomy to start new courses, admit foreign students, hire foreign faculty, and collaborate with foreign educational institutions without the need for government approval.
5. **“This decision is a landmark decision for following reasons - This was never thought off & tried; it is more than a graded autonomy, it is really a full autonomy to the institutes; the institutes can take their own decisions.**
6. This will facilitate them to grow more rapidly and at the same time they will get more opportunity to scale up their operations with more skills and quality improvement so that they become world class Institutes.
7. As many as 114 institutes had **applied for the tag. These include 11 central universities, 27 institutes of national importance; top IITs and NITs, 27 state universities, 10 private universities, and four greenfield institutes.**
8. Top corporates were also competing for the private institute’s category, with the Reliance Group applying for the Reliance Foundation Institution & Research in Maharashtra, Airtel for Bharti University (Satya Bharti Foundation) in Delhi, and Anil Agarwal’s Vedanta University in Odisha. KREA University which has former RBI governor Raghuram Rajan as its advisor, Indian School of Business, Hyderabad, Indus Tech University in Delhi and Acharya Institutes of Bangalore were among other applicants.

Institutes of Eminence	
The Chosen Ones	Those Left Out
IIT Bombay	IIMs
IIT Delhi	Central varsities
IISc Bangalore	State universities
BITS Pilani	NITs
Manipal University	Several old & new IITs
Jio University	
Among 114 applicants	
11 central universities	27 institutes of national importance, IITs and NITs
27 state universities	10 private universities and 4 greenfield institutes

INDIA’S FIRST INTERNET CALLING

State-owned telecom firm Bharat Sanchar Nigam Ltd (BSNL) on 11 July 2018 **unveiled India’s first internet telephony service** that will allow users to dial any telephone number in India through its mobile app, Wings. This is particularly useful for people who have poor mobile connectivity but have access to a WiFi connection. Earlier, users could make internet calls within mobile apps, but not to telephone or mobile numbers.

What

1. BSNL is offering unlimited audio and video calling for one year. Customers can activate the service at a one-time charge of 1,099.
2. International calls will be charged in line with the existing landline tariff with an additional ISD deposit of 2,000 rupees.
3. Bookings for new BSNL Wings connections are likely to start soon in all telecom circles of BSNL. New connections will start rolling out from 1 August.
4. This internet telephony service includes video-calling between two Wings users and will be available on computers as well.

5. BSNL Wings is being provided using IP Multimedia Subsystem (IMS), an architectural framework for making internet calls, and Next Generation Network (NGN) that basically converts voice, data and videos into IP packets.
6. To make and receive calls using the service, customers need to install an SIP client, which in this case is the Wings app, on a smartphone or PC with an active internet connection.

NET NEUTRALITY RECOMMENDATIONS APPROVED

The government on 11 July 2018 accepted Telecom Regulatory Authority of India's (Trai's) recommendations on net neutrality, which will ensure an open and free internet. All recommendations of Trai on net neutrality have been accepted. Now the licence agreements (with service providers) will be immediately amended and will be subject to principles of net neutrality," telecom secretary Aruna Sundararajan told reporters after the telecom commission approved the net neutrality policy.

What

1. Net neutrality implies that telecom service providers must treat all internet traffic equally, without any regard to the type, origin or destination of the content or the means of its transmission.
2. No internet access service provider can resort to any form of discrimination, restriction or interference in the treatment of content, including practices like blocking, degrading, slowing down or granting preferential speeds.
3. Trai had backed the basic principles of an open and free internet in its recommendations on net neutrality sent to the department of telecommunications in November 2017.

What is net neutrality?	
All traffic on the internet should be treated equally.	
NO BLOCKING	Your internet access provider (IAP) cannot block you from accessing legal content of your choice.
NO THROTTLING	Your IAP cannot intentionally throttle legal internet traffic to slower speeds than other traffic.
NO PAID PRIORITIZATION	Your IAP cannot sell 'fast lane' service to content providers who can pay more than others.
4. It had then suggested that Internet of Things (IoT), as a class of services, should not be excluded from the scope of the restriction on non-discriminatory treatment, but certain critical services should be exempt from these rules.
5. These services are other than internet access services, optimised for specific content, protocols or user equipment, where optimisation is necessary to meet specific quality of service requirements.
6. DoT will also frame a policy on traffic management practices for service providers and separately set up a multi-stakeholder body of industry representatives and civil society for monitoring and enforcing net neutrality norms.
7. The Cellular Operators Association of India (COAI), however, has urged the government to review industry practices with respect to traffic prioritisation to foster 5G-enabled applications and eco-system in India.

MOST DIVERSE STATE IN INDIA

The release of linguistic data from the 2011 census allows us to objectively conclude that Nagaland is the most linguistically diverse state in India, with Kerala being the least diverse. The analysis is rather simple—we use a concept from industrial economics known as the Herfindahl-Hirschmann Index (HHI). Originally developed to

quantify the degree of monopoly or competition in an industry, the HHI is defined as the sum of the square of the market share of each company in an industry. For an industry with perfect competition (a large number of companies, each with infinitesimal market share), the HHI comes close to zero. For a monopoly, the HHI is one.

What

1. **Inverting the HHI gives us an estimate of the “effective number of firms” in an industry** (one for a monopoly, infinite for a perfectly competitive industry), a concept that has been extended to other fields of economics as well.
2. For example, **the inverted HHI formula is used a measure of the “effective number of parties (votes)” in an election**. Similarly, we can use it to examine the effective number of languages in a state.
3. Now, the 2011 census gives language at two levels, which the census describes as **“language” and “mother tongue”, but which can also be described as “major language” and “minor language” or “language” and “dialect”** (bringing to mind the old adage that a language is a dialect with an army and a navy).
4. Nagaland is the clear winner on the diversity stakes on both the language and dialect axes, as the chart further demonstrates. Based on the 2011 census data, Nagaland effectively has 14 languages and 17 dialects with the largest language (Konyak) having only a 46% share.
5. At the other extreme, Kerala only has 1.06 effective languages, with 97% of the state’s residents **(in 2011) identifying Malayalam as their mother tongue**.
6. These extreme states are not the most interesting, though. The more interesting states are the predominantly Hindi-speaking states where the effective number of dialects far outstrips the effective number of languages.
7. Himachal Pradesh, for example, has only 1.3 effective languages with 86% of the population identifying Hindi as their mother tongue. Breaking it up into dialects, though, it turns out the state has nearly 6 effective languages, with the largest being **Pahari (a dialect of Hindi), which is spoken by 32% of the state’s population**.
8. Similarly, **78% of Bihar’s population speak Hindi** (when measured at the language level), giving it 1.6 effective languages, but broken down to the dialect level, Hindi is only spoken by 26% of the population (the other prominent dialect in the state being Bhojpur).
9. In Rajasthan and Chhattisgarh, while Hindi dominates at the language level, its dialects Rajasthani and Chattisgarhi dominate respectively if we measure at the dialect level.

ALLOW GAMBLING AS REGULATED ACTIVITIES

The Law commission submitted to the government its recommendation on legalising betting and gambling in India seeking stringent control and making the entire operation a cashless transaction with mandatory application of PAN (Permanent Account Number) and Aadhaar to curb any chances of money laundering. In its report - Legal framework: Gambling and sports betting including in cricket in India - the law panel has said that incapability to enforce a complete ban has resulted in rampant increase in illegal gambling, resulting in a boom in black money generation and circulation.

What

1. The panel recommended that Parliament may enact a model law for regulating gambling that may be adopted by the states or in the alternative, the Parliament may legislate in exercise of its powers under Articles 249 or 252 of the Constitution.
2. In case legislation is made under Article 252, states other than the consenting states will be free to adopt the same. Being a state subject under List II of the Seventh Schedule to the Constitution, it is needless to say that State Legislature(s) is competent to enact the required Law for the State(s) concerned, while duly taking note of the National Policy on gambling etc., and other legal considerations, the commission observed.
3. It has recommended gambling and betting to be offered only by Indian licensed operators from India possessing valid licences granted by the game licensing

- authority. It has also said that for participants, there must be a cap on the number of transactions in a specific period, ie, monthly, half-yearly or yearly.
4. The nature of stakes should be restricted to money with a linkage to PAN card and Aadhaar card, and the betting amount should be prescribed by law, having an upper limit on the amount one can legally stake in a gamble, which may be on the basis of the deposit, winnings or losses.
 5. The law panel has also suggested classifying gambling into two categories: 'proper gambling' and 'small gambling'. 'Proper gambling' would be characterised by higher stakes.
 6. Accordingly, only individuals belonging to the higher income group shall be permitted to indulge in this form of gambling.
 7. On the other hand, individuals belonging to the lower income groups will have to confine themselves to 'small gambling', not being permitted to stake high amounts (falling within the bracket of 'proper gambling').

Flashback

1. Law Commission of India is an executive body established by an order of the Government of India.
2. Its major function is to work for legal reform. Its membership primarily comprises legal experts, who are entrusted a mandate by the Government.
3. The Commission is established for a fixed tenure and works as an advisory body to the Ministry of Law and Justice.
4. The first Law Commission was established during the British Raj era in 1834 by the Charter Act of 1833. After that, three more Commissions were established in pre-independent India.
5. The first Law Commission of independent India was established in 1955 for a three-year term. Since then, twenty more Commissions have been established.
6. The 20th Law Commission was established in 2013 under the Chairmanship of Supreme Court Judge, D.K Jain. Its tenure was fixed till 2015.
7. The present Law Commission was established in 2015, and has tenure to 2018.

THE GI INDEX 2018

India slightly improved its rank in an index of the world's most innovative economies, maintaining its position as the top exporter of IT services but still lagging in parameters of ease of starting a business, political stability and safety, and female employees with advanced degrees in the workforce. The Global Innovation Index (GII) rankings, published annually by Cornell University, INSEAD and the UN World Intellectual Property Organisation (WIPO) and GII Knowledge Partners, ranked India at the 57th spot this year, a slight improvement from the 60th position in 2017.

What

1. India maintained its top place in the Central and Southern Asia region. However, it is noteworthy that while India is the top exporter of IT services, the use and access of information and communication technologies within the country is poor. India ranked 105th on IT access and 110th on IT use.
2. Among lower middle-income economies, India moved up to the fifth position in the GII rankings. It has also outperformed on innovation relative to its GDP per capita for eight years in a row.
3. India ranks well on a number of important indicators - productivity growth and exports of information and communication technology and services.
4. Given its size and innovation development, India has the potential to make a true difference to the global innovation landscape in the years to come.
5. Now in its 11th edition, the GII ranks 126 economies based on 80 indicators, ranging from intellectual property filing rates to mobile-application creation, education spending and scientific and technical publications.

6. India performed well on a number of parameters but showed "weakness" in some categories. The country was the top exporter of IT services for the second consecutive year.
7. The other areas of strength for India include the number of its science and engineering graduates, an area in which it ranked sixth overall.
8. It ranked fourth on ease of protecting minority investors, 16th on trade, competition and market scale and within this section, third on domestic market scale **measured in purchasing power parity, 18th on the global R&D Company's indicator, 20th on gross capital formation and 35th overall in investment.**
9. Another indicator where India was among the top five is the growth rate of GDP in purchasing power parity dollars per worker, coming in at the fourth spot. In exports of creative goods, it ranked 17th.
10. However, in some categories, India ranked comparatively low, displaying "weakness". These include its 110th rank in political stability and safety, regulatory quality (91), applied tariff rate (96) and intensity of local competition (93).
11. On the ecological sustainability indicator, India ranked a low 119. Out of 126 nations, it ranked 123rd on environmental performance.
12. India also did not fare well in the business environment category, ranking 106 overall and 114th in the sub-category of ease of starting a business and 91st on ease of resolving insolvency.
13. In the education sector, India was lagging considerably, coming in at the 112th rank and performing poorly in areas of expenditure on education as a per cent of GDP (82) and pupil-teacher ratio at the secondary level (101).
14. China broke into the world's top 20 most-innovative economies as Switzerland retained its number-one spot in the index. Rounding out the GII 2018 top 10 are the Netherlands, Sweden, the UK, Singapore, the US, Finland, Denmark, Germany and Ireland.
15. China's number 17 ranking this year represents a "breakthrough" for an economy witnessing rapid transformation guided by government policy prioritising research and development-intensive ingenuity, the report said.
16. The theme of the 2018 GII edition is 'Energising the World with Innovation' looking at the need for expanded innovative work in climate-friendly green technology amid rising energy demands worldwide.
17. Projections indicate that by 2040 the world will require up to 30 per cent more energy than it needs today and conventional approaches to expanding the energy supply are unsustainable in the face of climate change.

RELIEF & REHABILITATION SCHEME APPROVED

The cabinet on 4 July 2018 approved till 2020 eight schemes of home ministry for relief and rehabilitation of migrants under the **umbrella scheme "Relief and Rehabilitation of Migrants and Repatriates"**, including displaced families from Pakistan-administered Kashmir, Sri Lankan refugees, Bru families lodged in relief camps in Tripura, 1984 anti-Sikh riot victims, civilian victims of terrorist, communal and Maoist violence. The government will spend Rs 3,183 crore on these schemes in next three years over next three years. The eight schemes approved for continuance are already in operation and the benefits under each will be extended to intended beneficiaries in accordance with the approved criterion.

The schemes are

1. Grant of enhanced relief of Rs 5 lakh per deceased person, who died during 1984 anti-Sikh riots
2. Central assistance for one-time settlement of displaced families from Pakistan-occupied Jammu and Kashmir (PoJK) and Chhamb settled in Jammu and Kashmir
3. Rehabilitation package and upgradation of infrastructure of the Bangladeshi enclaves and Cooch Behar district in West Bengal after transfer of enclaves between India and Bangladesh under a land boundary agreement.

4. Relief assistance to Sri Lankan refugees staying in camps in Tamil Nadu and Odisha
5. Grant-in-aid to Central Tibetan Relief Committee (CTRC) for five years for administrative and social welfare expenses of Tibetan settlements
6. Grant-in-aid to government of Tripura for maintenance of Brus lodged in relief camps of Tripura
7. Rehabilitation of Bru/Reang families from Tripura to Mizoram
8. Central scheme for assistance to civilian victims/family of victims of terrorist, communal, left wing extremism (LWE)-related violence
9. Cross-border firing and mine and IED blasts on Indian territory are part of it.
10. To enable the migrants and repatriates, who have suffered on account of displacement, to earn a reasonable income and to facilitate their inclusion in mainstream economic activities, the government, at different points of time, started these eight schemes.

INDIA'S FIRST GLOBAL MOBILITY SUMMIT

NITI Aayog, in collaboration with various ministries and industry partners was organised 'MOVE: Global Mobility Summit' in New Delhi on 7th and 8th September, 2018. **This Summit helps to drive Government's goals for vehicle electrification renewable energy integration and job growth and also speed up India's transition to a clean energy economy.** The Hon'ble Prime Minister inaugurated the Summit, which was the first Global Mobility Summit of its kind, with over 1,200 participants from across the world including Government leadership, Industry leaders, Research Organizations, Academia, Think Tanks and Civil Society Organisations. The six tracks or themes for the Summit will focus on:

1. Asset Utilization and Services;
2. Comprehensive Electrification ;
3. Alternative Energy;
4. Reinventing Public Transit;
5. Logistics and Goods Transport;
6. Data Analytics and Mobility.

What

1. The Global Mobility Summit, 2018 also includes Featured Events such as Breakout sessions, Fireside chats, Innovation spotlights, Hackathons, Mobility Pitch Competitions and Networking Sessions.
2. These are planned in collaboration with industry sponsors and partners offering informal insights into what constitute transformative mobility.
3. **NITI Aayog has additionally planned a series of uniquely curated 'NITI Talks'**, showcasing successful entrepreneurs from across the country to well-known movers and shakers from the field of mobility, sustainable development, climate change and multimodal transport.
4. The global innovation agenda has expanded the creative limits of what future mobility would **constitute and India has the potential to be a leader in the 'global mobility movement.**
5. The Summit aims to encourage synergies between indigenous industries such as Automobile Manufacturing, Information Technology, Electronics, Telecommunications and others, **to integrate with global supply chains and cement India's position as a progressive, forwarding looking nation.**
6. The Summit also envisages mobility as a key driver for generating employment, accelerating economic growth & providing innovative solutions to improve efficiency and efficacy of transport sector.
7. NITI Aayog has also been working towards evolving a National Strategy for Transforming Mobility, in the spirit of cooperative and competitive federalism, urging all States and Union territories to formulate state-specific comprehensive strategies by constituting respective State Task Forces.

- Inputs received from the various States will be integrated with global best practices to come up with a National Strategy, which will also be launched.

‘USED COOKING OIL’ COME INTO EFFECT

With the new regulations for monitoring **“used cooking oils” coming into force from July 1**, the Food Safety and Standards Authority of India (FSSAI) on 2 July 2018 said the implementation of these regulations will require focus on consumer education, enforcement as well as creation of an eco-system for collection of **“used cooking oil”** to produce biodiesel. FSSAI said it is in discussion with the Indian Biodiesel Association to establish a nation-wide eco-system for collection of used cooking oil and its conversion to bio-diesel.

What

- The new regulations have set the maximum permissible limit of Total Polar Compound (TPC) in edible oil at 25 per cent. Repeated frying and usage of edible oil changes its physiochemical and nutrition properties and leads to the formation of TPC, which makes it unfit for human consumption.
- From July 1, onwards, all Food Business Operators (FBOs) would be required to monitor the quality of oil during frying by complying with the said regulations.
- FSSAI said effective implementation of used cooking oil standards requires **“Triple E strategy”** and a co-ordinated effort.
- First ‘E’ in the ‘Triple E Strategy’ is ‘Education’** that is educating both the consumers and food businesses about public health consequences of spoiled ‘used cooking oil’.
- Second ‘E’ is ‘Enforcement’**, particularly amongst large food processing plants, restaurants and fast-food joints that are frying food in large quantities; and the third **‘E’ is developing an ‘Ecosystem’** for collection of used cooking oil and producing biodiesel from it.
- FSSAI has also advised State Food Safety Commissioners to focus on awareness and education programmes, surveillance and enforcement activities for these new set of regulations. Annually, about 23-million tonne cooking oil is consumed in India. There is potential to recover and use about 3 million tonnes of this for production of bio-diesel.
- As of now, used cooking oil is either not discarded or disposed in an environmentally hazardous manner and sometimes even finds its way to smaller restaurants, dhaabas and street-vendors.

RENAMING OF AGARTALA AIRPORT

The Union Cabinet on 4 July 2018 gave its approval to rename the Agartala airport **in Tripura as ‘Maharaja Bir Bikram Manikya Kishore Airport**, after the last princely ruler of Tripura. This was one of the promises the BJP had made before the assembly election last February. This was also one of the decisions taken at the first meeting of the council of ministers of the government in the state.

What

- Maharaja Bir Bikram Manikya Kishore, who ascended the throne of the erstwhile Tripura Princely State in 1923, was an enlightened and benevolent ruler.
- Agartala Airport was constructed in 1942 on the land donated by Maharaja Bir Bikram Manikya Kishore.
- As a visionary ruler, who had travelled extensively across the globe, he took several steps for the all-round development of Tripura.
- Due to his initiative, an aerodrome at Agartala was constructed that has evolved as the second busiest airport in the northeast and provides crucial air connectivity to Tripura.
- Hence, it is apt to rename the Agartala Airport after his name, which will be a befitting tribute to Maharaja Bir Bikram Manikya Kishore.

HAPPINESS SURVEY

Madhya Pradesh government and experts of IIT-Kharagpur have shortlisted over 30 questions, which will be asked to people during the first happiness survey in the state. But the questions would not be revealed as of now as the government wants spontaneous answers. The happiness survey is being conducted by the **state's happiness** department — the one-of-its-kind in the country.

What

1. Under the survey, people will have to rate different parameters including education, social, economic and their experience in government offices and schemes on a scale of one to 10.
2. The questions will be sent to experts in different parts of the world. The **government would start the survey, once it's assured that the questions and procedure are at par with the international standards.**
3. In May 2017, the MP government had signed an MoU with IIT-Kharagpur for development of a happiness index for measuring the well-being of the people in the state.
4. In February this year, 80 experts from across the world, apart from state government officials, delegates from IIT-Kharagpur brainstormed in Bhopal to ascertain what makes people of MP.
5. In September last year, the government did a small survey and quizzed about 2,000 people on what makes them happy. The final questionnaire would incorporate the major points of the September survey.
6. Under the survey, citizens of Madhya Pradesh will have to rate different parameters that include education, their social and economic conditions, experience in government offices and schemes undertaken on a scale of 1 to 10

INTERNATIONAL

BOLIVIA OFFERS ITS LITHIUM RESERVES

Bolivia, known to have the largest reserves of Lithium, has offered the metal—used in making batteries of electric vehicles, laptops and smart phones—to India, the South American **nation's** ambassador, Sergio Dario Arispe Barrientos, said. Barrientos said his country is willing to sign a Preferential Trade Agreement (PTA)—a pact between countries that provides preferential access to certain products by lowering tariff and other conditions—with India for select goods.

What

1. Bolivia has the largest reserve of Lithium in the world and it can become a strategic partner to India in providing the resource.
2. Referring to reports that India was looking at an all-electric car fleet by 2030, the ambassador said in the years to come Lithium will become a very important commodity.
3. According to a Niti Aayog report: In line with its aspiration to achieve 100 per cent electric vehicle (EV) sales by 2030, India can rise among the top countries in the world in manufacturing batteries.
4. **India's market for EV batteries alone** could be worth as much as USD 300 billion from 2017 to 2030. India could represent more than one-third of the global EV battery demand by 2030, if the country meets its goals for a rapid transition to shared, connected, and electric mobility.
5. Barrientos, **who is also known as 'the Lithium Ambassador' among many**, said India must push forward in Latin America with stronger objectives.
6. China is already acquiring Lithium from Bolivia. Bolivia is trying to have the PTA with India to cater to markets in each other's country.
7. However, rued the fact that India does not have its embassy in Bolivia.

- The Indian Embassy in Lima is concurrently accredited to Bolivia since April 1981. China has an embassy, which they opened several decades ago. It is the key means to understand the realities of the countries.

UN ELECTS ICELAND TO REPLACE US

The UN General Assembly has elected Iceland to replace the United States on the U.N. Human Rights Council **following the Trump administration's decision to leave the Geneva-based organization** last month. Iceland was nominated by the group of Western nations and received 172 votes while France received one, sparking laughter in the assembly chamber.

What

- The United States is out, walking away from yet another multilateral engagement. This time it's the United Nations Human Rights Council. Nathan Frandino has more.
- U.S. Ambassador Nikki Haley said the administration withdrew from **the council "because our commitment does not allow us to remain a part of a hypocritical and self-serving organization that makes a mockery of human rights." She lambasted the council for "its chronic bias against Israel."**
- The 47-member Human Rights Council allocates a specific number of seats for each region of the globe.
- Iceland's term begins immediately and it** will serve until Dec. 31, 2019.

Flashback

- The Human Rights Council is an inter-governmental body within the United Nations system responsible for strengthening the promotion and protection of human rights around the globe and for addressing situations of human rights violations and make recommendations on them.
- The Council was created by the United Nations General Assembly on 15 March 2006.
- Its first session took place from 19 to 30 June 2006. One year later, the Council adopted its "Institution-building package" to guide its work and set up its procedures and mechanisms.

INDIANS IN 'WINDRUSH' IMMIGRATION SCANDAL

As many as 93 Indians have been caught up in the UK's 'Windrush' immigration scandal as the UK government on 12 July 2018 released latest figures of Commonwealth nationals caught up in the row over their citizenship rights. The true scale of Indians affected by the Windrush scandal emerged as 93 Indian nationals have been provided with documentation to formalise their rights to live and work in the UK by an emergency task force set up by the UK Home Office to deal with cases of migrants who arrived in the UK before immigration rules became more stringent in 1973.

What

- The 'Windrush scandal' emerged as UK-based Jamaicans faced forced deportations due to lack of documentary evidence that they had the legal right to be in Britain.
- The Windrush generation refers to citizens of former British colonies who arrived before 1973, when the rights of such Commonwealth citizens to live and work in Britain were substantially curtailed.
- While a large proportion of them were of Jamaican/Caribbean descent, they also included Indians and other South Asians," said Rob McNeil, deputy director of the migration observatory.
- Indians at 93 such cases formed the third-largest group, after countries like Jamaica (1,014) and Barbados (207). The others include Grenada (88), Trinidad and Tobago (85), and 638 were from countries classified as 'Others'.
- Under a Windrush scheme launched by the UK government in May, many of these applicants, their children born in the UK and those who arrived in the UK as minors are able to apply for British citizenship, or various other immigration routes, free of

charge. In June, 584 individuals were recorded as being granted citizenship through the scheme.

6. 'Windrush generation' relates to a ship named 'Windrush' which brought Jamaican workers to UK shores in 1948.
7. The scandal emerged as many who arrived as children around that period have been struggling to access state services or even threatened with deportation because they did not possess any documents to prove they arrived before 1973.

CUBA TO RESHAPE WITH NEW CONSTITUTION

Cuba has revealed new details about plans to reshape its government, courts and economy with a constitutional reform set to be approved by the national assembly this month. The reform of the 1976 constitution would create the position of prime minister alongside the president, splitting the roles of head of government and head of state.

What

1. The constitution keeps the Communist Party as the sole political force in the country and says the communist state will remain the dominant economic force.
2. The constitution does, however, create new recognitions of the free market and private property in Cuban society, and creates a new presumption of innocence in the justice system.
3. In a show of continuity, Raul Castro stood side-by-side with his protege Miguel Diaz-Canel during Havana's May Day march.
4. The proposed constitutional reform described in the main state paper yesterday is also expected to be approved in a later national referendum. Officials say the 1976 charter does not reflect changes made in Cuba in recent years.
5. **The experiences gained in these years of Revolution” and “the new paths mapped out” by the Communist Party** are some of the reasons for reforming the constitution.
6. The new constitution will maintain rights such as religious freedom but will also make explicit the principle of non-discrimination due to gender identity.

Flashback	
1.	Cuba is a country comprising the island of Cuba as well as Isla de la Juventud and several minor archipelagos.
2.	Cuba is located in the northern Caribbean where the Caribbean Sea, Gulf of Mexico and Atlantic Ocean meet.
3.	It is south of both the U.S. state of Florida and the Bahamas, west of Haiti and north of Jamaica. Havana is the largest city and capital; other major cities include Santiago de Cuba and Camagüey.
4.	The island of Cuba is the largest island in the Caribbean, with an area of 109,884 square kilometres (42,426 sq mi), and the second-most populous after Hispaniola, with over 11 million inhabitants.

CENTRE BRINGS IN UNDP FOR CROP INSURANCE SCHEME

The Centre has put in place a new professional team to fast-track crop insurance scheme Pradhan Mantri Fasal Bima Yojana and raises the coverage under the scheme to 50 per cent of the gross cropped area in 2018-19. The United Nations Development Programme (UNDP) has been contracted as a consultant for two years to help establish a Programme Management Unit (PMU) at a cost of 28 crore.

What

1. The unit will have 15 professionals whom the UNDP is in the process of hiring on its payroll. Some professionals have already been recruited.
2. The unit, to be housed in Shastri Bhavan or Krishi Bhavan, will not only monitor all issues related to the PMFBY, but will also address them comprehensively.
3. PMFBY was launched in 2016 and is being implemented in 25 States. Under the scheme, farmers pay very nominal premium and get full claim for damages.
4. The crop insurance claim is estimated to be 15,853 crore for the kharif 2017 season, of which 6,622 crore has been settled, as per the government data.

5. Under PMFBY, farmers' premium has been kept lower between 1.5 and 2 per cent for foodgrains and oilseed crops, and up to 5 per cent for horticultural and cotton crops.
6. There is no cap on the premium and 25 per cent of the likely claim will be **settled directly in farmers' accounts**.

INDIA, SOUTH KOREA SIGN 11 AGREEMENTS

India and South Korea signed 11 agreements, including in the areas of trade, cultural and scientific and technological cooperation, during the visit of South Korean President Moon Jae-in to India. The two sides signed a joint statement on Early Harvest Package of the upgraded Comprehensive Economic Partnership Agreement (CEPA), the external affairs ministry said.

What

1. The Early Harvest facilitates ongoing negotiations on upgrading the India-South Korea CEPA, that came into operation in 2010, by identifying key areas for trade liberalisation.
2. A memorandum of understanding (MoU) was signed that is aimed at anti-dumping, subsidy, countervailing and safeguard measures through consultations and exchange of information through the establishment of a cooperation committee comprising government officials and domain experts.
3. Another MoU was signed for the formation of a Future Strategy Group for cooperation in development of cutting edge technologies for commercialization to reap benefits of the 4th Industrial revolution.
4. Thrust areas include Internet of Things (IOT), Artificial Intelligence (AI), Big Data, Smart Factory, 3D printing, electric vehicles, advance materials and affordable healthcare for the elderly and disabled.
5. A cultural exchange programme for the period 2018-2022 was signed to deepen cultural and people-to-people relations by providing for institutionalised cooperation in fields of music and dance, theatre, art exhibitions, archives, anthropology, mass media programmes and museum exhibits.
6. A MoU was signed on similar lines to facilitate upgrade and expansion of the existing monument in Ayodhya commemorating Princess Suriratna (Queen Hur Hwang-ok), a legendary princess of Ayodhya, who went to Korea in 48 A.D and married King Kim-Suro.
7. A large number of Koreans trace their ancestry to this legendary princess and the new monument will be a tribute to the shared cultural heritage between the two countries.
8. Other MoUs signed include cooperation in the areas of scientific and technological research, railway research, biotechnology and bio-economics, ICT and telecommunications, and micro, small and medium enterprises.

ECONOMY

SC UPHOLDS RBI CRYPTO BAN

The Supreme Court has refused to stay a Reserve Bank of India circular prohibiting banks and financial institutions from providing services in relation to cryptocurrencies. A bench headed by Chief Justice Dipak Misra issued notices to the ministries of Finance, Law and Justice and Information Technology and the RBI and tagged the matter along with similar cases.

What

1. According to the April 6 circular, the entities regulated by the RBI are prohibited from "providing any service in relation to virtual currencies, including those of transfer or receipt of money in accounts relating to the purchase or sale of virtual currencies".
2. Cryptocurrencies are digital currencies, in which encryption techniques are used to regulate the generation of the currency units and verify the transfer of funds, operating independently of a central bank.

3. The top court was hearing a plea filed by Internet and Mobile Association of India **seeking a stay on the RBI circular claiming it was** “arbitrary, unfair and unconstitutional”.
4. The association has contended that the RBI circular has barred all the entities regulated by the apex bank from providing services to any individual or business dealing in virtual currencies like cryptocurrencies.

FIRST MEETING OF E-COMMERCE TASK FORCE

Commerce Secretary, Rita Teatia, chaired the first meeting of the Task Force on e-commerce in New Delhi 6 July 2018. The meeting deliberated upon the suggestions emerging from the sub-group meetings held during 20th – 22nd June, 2018. The suggestions were on wide ranging issues such as cross border data flows, taxation, trade facilitation and logistics, consumer confidence, IPR and future tech, FDI and competition issues.

What

1. The sub-groups saw participation from various ministries and departments, high level representatives from the industry bodies, e-commerce companies, telecommunication and IT companies and independent experts.
2. It was decided to set up a Task Force in the first meeting of the Think Tank, on the framework for national policy on e-commerce, held on 24th April 2018, under the chairmanship of Suresh Prabhu, Minister of Commerce & Industry and Civil Aviation.
3. The Task Force was further divided into nine sub-groups for preparing recommendations for India’s **national policy on e-commerce**.
4. **In today’s meeting senior officers of the Ministries of MSME, Consumer Affairs, Electronics and Information Technology, Corporate Affairs and Department of Telecommunications, Competition Commission of India and DGFT were present.**
5. The suggestions emerging from the Task Force meeting held today will be submitted to the Think Tank for consideration.

Flashback

1. E-commerce -- electronic commerce or EC -- is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet.
2. These business transactions occur either as business-to-business, business-to-consumer, consumer-to-consumer or consumer-to-business.

IBBI AMENDS THE IBBI REGULATIONS, 2016

The Insolvency and Bankruptcy Board of India (IBBI) has notified the Insolvency and Bankruptcy Board of India (Insolvency Resolution Process for Corporate Persons) (Third Amendment) Regulations, 2018 on 4 July 2018.

The salient amendments to the regulations

1. The regulations provide that wherever the corporate debtor has classes of creditors having at least ten creditors in the class, the interim resolution professional shall offer a choice of three insolvency professionals in the public announcement to act as the authorised representative of creditors in each class. A creditor in a class may indicate its choice of an insolvency professional, from amongst the three choices provided by the interim resolution professional, to act as its authorised representative.
2. An application for withdrawal of an application admitted under section 7, 9 or 10 of the Code (for closure of corporate insolvency resolution process) may be submitted to the interim resolution professional or the resolution professional, as the case may be, before issue of invitation for expression of interest, along with a bank guarantee towards estimated cost incurred for certain purposes under the process.
3. The committee of creditors (CoC) shall consider the application within seven days of its constitution or seven days of receipt of the application, whichever is later. If the application is approved by the CoC with 90% voting share, the resolution

- professional shall submit the application to the Adjudicating Authority on behalf of the applicant, within three days of such approval.
4. Where rate of interest has not been agreed to between the parties in case of creditors in a class, the voting share of such a creditor shall be in proportion to the financial debt that includes an interest at the rate of eight per cent per annum.
 5. Where the appointment of resolution professional is delayed, the interim resolution professional shall perform the functions of the resolution professional from the fortieth day of the insolvency commencement date till a resolution professional is appointed.
 6. The resolution professional shall form an opinion whether the corporate debtor has been subjected to certain transactions (preferential transactions, undervalued transactions, extortionate transactions or fraudulent transactions) by 75th day and make a determination of the same by 115th day of the insolvency commencement date.
 7. The resolution professional shall publish an invitation for expression of interest (Eoi) by the 75th day from the insolvency commencement date. The invitation shall specify the criteria, ineligibility, the last date for submission of Eoi and other details and shall not require payment of non-refundable deposit.

The resolution plan needs to demonstrate that

1. It addresses the cause of default
2. It is feasible and viable
3. It has provisions for its effective implementation
4. It has provisions for approvals required and the timeline for the same
5. The resolution applicant has the capability to implement the resolution plan.

ANNUAL BUSINESS RANKING OF STATES

Andhra Pradesh has topped the ease of doing annual business ranking of states and Union Territories by the World Bank and Department of Industrial Policy and Promotion (DIPP). Telangana and Haryana are at the second and third positions, respectively, according to a statement issued by DIPP. Others in the top ten are Jharkhand (4), Gujarat (5), Chhattisgarh (6), Madhya Pradesh (7), Karnataka (8), Rajasthan (9) and West Bengal (10). Meghalaya was ranked last at 36th position. What

1. DIPP in collaboration with the World Bank conducts an annual reform exercise for all States/UTs under the Business Reform Action Plan (BRAP).
2. The assessment under the BRAP 2017 is based on a combined score consisting of reform evidence score that is based on evidence uploaded by States/UTs and feedback score that is based on response garnered from the actual users of the services provided to the businesses.
3. DIPP said 17 states have achieved a reform evidence score of more than 90 per cent and 15 have achieved a combined score of 90 per cent and more.
4. The states which have achieved 80 per cent or more reforms evidence score represent 84 per cent of the country's area, 90 per cent of the country's population and 79 per cent of India's GDP.
5. Number of reform actions implemented under BRAP 2017 increased to 7,758 from 2,532 in 2015.

Key takeaways

1. Chhattisgarh tops in terms of property registration
2. Rajasthan tops in terms of construction permit
3. West Bengal tops in terms of labour regulation
4. Karnataka tops in terms of environmental registration
5. Uttarakhand tops in terms of land availability
6. Odisha tops in terms of paying taxes
7. Uttar Pradesh tops in terms of obtaining utility permit

GOVT GIVES NOD TO IRAN BANK

The Centre has approved a proposal from Iranian private lender Bank Pasargad to open a branch in Mumbai. The Finance Ministry has conveyed to the RBI that it has no objection to allowing the Tehran-based Bank Pasargad to open its branch in India. The clearance to the Iranian bank comes amidst the US announcing sanctions and asking other countries to minimise oil purchases from Iran. The first US sanctions on Iran will start from August 6 and a second set will begin from November 4.

What

1. The Federation of Indian Export Organisations had earlier approached the RBI suggesting that they should allow the entry of Iranian banks into India to facilitate bilateral trade.
2. Apart from the Iranian Bank, branch licence proposals of two South Korean banks, KEB Hana Bank and Kookmin Bank, have also been approved by the Centre.
3. After the RBI gives its first internal clearance to a foreign bank branch proposal, it is vetted by a committee comprising senior officials of the ministries of Finance, Commerce, External Affairs and Home Affairs. Clearance from each ministry is required before the RBI issues a licence to a foreign bank.
4. In the wake of US sanctions, India may explore the possibility of reviving the rupee-rial arrangement to import oil from Iran that it has used in the past.
5. The presence of an Iranian bank in India will open up a significant financial channel that will ensure the smooth flow of funds between the two countries. India imports a large quantity of oil from Iran and has committed an investment of \$500 million for the development of the crucial Chabahar port.
6. The rupee-rial arrangement was used to buy oil from Iran before US sanctions were lifted against it three years ago. Under this mechanism, India paid in Euros to clear 55 per cent of its dues, while the remaining 45 per cent payment was remitted in rupees into accounts Iranian oil companies had with UCO Bank.

Flashback

1. Two banks from Iran, Bank Pasargad and Parsian Bank, had applied to set up maiden branches in India, while another Iranian lender, Saman Bank, had sent an application to set up a representative office.
2. The government has so far cleared only the Tehran Stock Exchange-listed Bank **Pasargad's proposal for a branch in Mumbai, while the other Iranian banks' plans are yet to get the green light.**
3. Apart from the Iranian bank, the Centre has **approved South Korean KEB Hana Bank's** proposal to open its second branch in Gurugram and **Kookmin Bank's** request to convert its representative office in Gurugram into a branch. The government has also **rejected an application from Malaysia's** Maybank to open a branch in India for the second time.
4. At least 14 foreign banks applied to the RBI last year to open branches across the country. Apart from the Iranian banks, two Chinese banks, four banks from South Korea, and two from the Netherlands have applied to set up branches and wholly-owned subsidiaries in India. One bank each from the Czech Republic, Sri Lanka and Malaysia has also applied to open branches.

BANKS FINALISE INTER-CREDITOR AGREEMENT

With a view to fast track NPA resolution, bankers on 5 July 2018 finalised the inter-creditor agreement (ICA) framework that envisages effective communication among lenders. The non-performing assets (NPAs) in the banking sector crossed Rs 9 trillion at end-December 2017 and the RBI has warned of further worsening of the situation. The

agreement, a part of Project Sashakt, will be taken to boards of respective banks and would be cleared in couple of days.

What

1. The meeting called by Indian Banks Association was also attended by Finance Minister Piyush Goyal, who had accepted the report of the Sunil Mehta Committee earlier this week.
2. It makes sure that there is effective, good communication amongst banks and if anyone has a difference, then they will resolve it among themselves.
3. The framework will authorise the lead bank to implement a resolution plan in 180 days and the leader would then prepare a resolution plan including empanelling turnaround specialists and other industry experts for operation turnaround of the assets within RBI's stipulated time-frame of 180 days.
4. The way we had articulated project Sashakt, this is really for multi banking arrangement that is the whole idea of having inter-creditor agreement.
5. Regarding setting of Asset Management Companies under the Project Sashakt, The matter is being looked into and next step will be discussed in the future.
6. Under project Sashakt, independent asset management companies (AMCs) and steering committees would be set up for faster resolution of bad loans in the banking system.
7. The project is based on the recommendations of Sunil Mehta committee.

COMMITTEE UNDER THE CA 13

The Ministry of Corporate Affairs (MCA) has constituted a 10 Member Committee; headed by the Secretary of Ministry of Corporate Affairs, for review of the penal provisions in the Companies Act, 2013 (CA 13). The MCA seeks to review offences under the Companies Act, 2013 as some of the offences may be required to be decriminalised and handled in an in-house mechanism, where a penalty could be levied in instances of default.

What

1. This would also allow the trial courts to pay more attention on offences of serious nature. Consequently, it has been decided that the existing compoundable offences in the Companies Act - 2013 viz. offences punishable with fine only or punishable with fine or imprisonment or both may be examined and a decision may be taken as to whether any of such offences may be considered as **'civil wrongs' or 'defaults' where a penalty by an adjudicating officer** may be imposed in the first place and only consequent to further non-compliance of the order of such authority will it be categorised as an offence triable by a special court.
2. It is also required to be seen as to whether any non-compoundable offences viz. offence punishable with imprisonment only, or punishable with imprisonment and also with fine under the Companies Act, 2013 may be made compoundable.
3. The Committee shall submit its report within thirty days to the Central Government for consideration of its recommendations.

The terms of reference

1. **To examine the nature of all 'acts' categorised as compoundable offences** viz. offences punishable with fine only or punishable with fine or imprisonment or both under the CA-13 and recommend if any of such 'acts' may be re-categorised as **'acts'** which attract civil liabilities wherein the company and its 'officers in default' are liable for penalty;
2. To review the provisions relating to non-compoundable offences and recommend whether any such provisions need to be re-categorised as compoundable offence;

3. To examine the existing mechanism of levy of penalty under the CA-13 and suggest any improvements thereon;
4. To lay down the broad contours of an in-house adjudicatory mechanism where penalty may be levied in a MCA21 system driven manner so that discretion is minimised;
5. To take necessary steps in formulation of draft changes in the law;
6. Any other matter which may be relevant in this regard.

SCIENCE AND TECHNOLOGY

GHOST PARTICLE ORIGIN TRACED

For the first time, scientists have found the source of a high-energy ghostly particle, known as neutrino that travelled 3.7 billion years at almost the speed of light to reach Earth. Using **NASA's Fermi Gamma-ray** space telescope, scientists traced the path of this hard-to-catch particle to a blast of gamma-ray light from a distant supermassive black hole in the constellation Orion. Scientists believe that high-energy neutrinos are created by the most powerful events in the cosmos, such as galaxy mergers and material falling onto supermassive black holes.

What

1. They travel at speeds just shy of the speed of light and rarely interact with other matter, allowing them to travel unimpeded across distances of billions of light-years. The findings detailed in the journal *Science* marked the detection of the source of such a particle for the first time.
2. Fermi has helped make another giant leap in a growing field we call multimessenger astronomy," said Paul Hertz, Director of the Astrophysics Division at NASA Headquarters in Washington.
3. Neutrinos and gravitational waves deliver new kinds of information about the most extreme environments in the universe.
4. The neutrino was discovered last year in Antarctica by an international team of scientists using the US National Science Foundation's IceCube Neutrino Observatory.
5. It hit the Antarctic ice with the energy of about 300 trillion electron volts — more than 45 times the energy achievable in the most powerful particle accelerator on Earth.
6. This high energy strongly suggested that the neutrino had to be from beyond our solar system. Backtracking the path through IceCube indicated where in the sky the neutrino came from, and automated alerts notified astronomers around the globe to search this region for flares or outbursts that could be associated with the event.
7. Data from Fermi revealed enhanced gamma-ray emission from a well-known active galaxy at the time the neutrino arrived.
8. This is a type of active galaxy called a blazar, with a supermassive black hole with **millions to billions of times the Sun's mass that blasts jets of particles outward** in opposite directions at nearly the speed of light.
9. Blazars are especially bright and active because one of these jets happens to point almost directly toward Earth. Fermi scientist Yasuyuki Tanaka at Hiroshima University in Japan was the first to associate the neutrino event with the blazar designated TXS 0506+056 (TXS 0506 for short).
10. The most extreme cosmic explosions produce gravitational waves, and the most extreme cosmic accelerators produce high-energy neutrinos and cosmic rays.

VOLCANO SPOTS ON MOON IO

Scientists have discovered a **volcano close to the south pole of Jupiter's moon Io**, using data **collected by NASA's Juno spacecraft**. The infrared data were collected in December last year, when Juno was about 470,000 kilometres away from the moon, using its Jovian InfraRed Auroral Mapper (JIRAM) instrument.

What

1. The new Io hotspot JIRAM picked up is about 200 miles (300 kilometers) from the nearest previously mapped hotspot, said Alessandro Mura, from the National Institute for Astrophysics in Italy.
2. NASA wants to smash a satellite into an asteroid, and it's all in the name of saving Earth from future catastrophic space rock collisions.
3. Past NASA missions of exploration that have visited the Jovian system (Voyagers 1 and 2, Galileo, Cassini and New Horizons), along with ground-based observations, have located over 150 active volcanoes on Io so far.
4. Scientists estimate that about another 250 or so are waiting to be discovered. Juno **has logged nearly 235 million kilometers since entering Jupiter's orbit on July 4, 2016.**
5. Juno launched on August 5, 2011, from the US. During its mission of exploration, Juno **soars low over the planet's cloud tops** – as close as about 3,400 kilometres.
6. During these flybys, Juno is probing beneath the obscuring cloud cover of Jupiter and **studying its auroras to learn more about the planet's origins, structure, atmosphere and magnetosphere.**

AI ROBOT REACHES SPACE STATION

A SpaceX Dragon spacecraft loaded with about 2,600 kg of research materials and supplies, including an Artificial Intelligence (AI) robot named Cimon, reached the International Space Station, NASA said. The spacecraft lifted off on a Falcon 9 rocket on June 29 from Cape Canaveral Air Force Station in Florida. NASA astronauts Ricky Arnold and Drew Feustel **captured the Dragon spacecraft using the space station's Canadarm2 robotic arm**, the US space agency wrote in a blog post.

What

1. Among the research arriving on Dragon is a cellular biology investigation (Micro-12) to understand how microgravity affects the growth, gene expression and the ability of a model bacterium to transfer electrons through its cell membrane along the bacterial nanowires it produces.
2. Such bacteria could be used in microbial fuel cells to make electricity from waste organic material.
3. An Earth science instrument called the ECOsystem Spaceborne Thermal Radiometer Experiment on Space Station (ECOSTRESS) will provide a new space-based measurement of how plants respond to changes in water availability. This data can help society better manage agricultural water use.
4. **The spacecraft's occupant also included a robot named Cimon, short for Crew Interactive Mobile Companion.**
5. The pilot study with Cimon is a technology demonstration project, and an observational study that aims to obtain the first insights into the effects on crew support by AI, in terms of efficiency and acceptance during long-term missions in space.

HUBBLE SPOTS MASSIVE CLUSTER

NASA's Hubble Space Telescope has detected a stunning image of a huge collection of ageing stars, believed to be 10 billion-years-old. This rich and dense smattering of stars is a massive globular cluster, a gravitationally bound collection of stars that orbits the Milky Way. Globular clusters are denser and more spherical than open star clusters like the famous Pleiades.

What

1. They typically contain hundreds of thousands of stars that are thought to have formed at roughly the same time.
2. The hundreds of thousands of stars within the NGC 6139 are believed to have been formed over 10 billion years ago.

3. As a result, they contain some of the oldest stars in our galaxy, formed very early in **the galaxy's history**. However, their role in galactic evolution is still a matter of study.
4. This cluster is seen roughly in the direction of the centre of the Milky Way, in the constellation of Scorpius (the Scorpion).
5. This constellation is a gold mine of fascinating astronomical objects. Astronomers **have used Hubble to track "Scorpius" many times to observe objects such as** the Butterfly Nebula, surprising binary star systems, and other dazzling globular clusters.
6. Earlier this month, Hubble also revealed the most comprehensive, high-resolution ultraviolet-light survey of nearby star-forming galaxies.

EARTH'S FIRST ANIMALS CAUSED GLOBAL WARMING

A new research has claimed that the climate change phenomenon was caused by **the evolution of Earth's first animals more than 500 million years** ago. The study revealed that some 520-540 million years ago, animal life evolved in the ocean and began breaking down organic material on the seafloor, leading to more carbon dioxide (CO₂) and less oxygen in the atmosphere. In the 100 million years that followed, conditions for these earliest animals became much harsher, as ocean oxygen levels fell and CO₂ caused global warming.

What

1. Like worms in a garden, tiny creatures on the seabed disturb, mix and recycle dead organic material — a process known as bioturbation. Because the effect of animals burrowing is so big, you would expect to see big changes in the environment when the whole ocean floor changes from an undisturbed state to a bioturbated state.
2. A shortage of carbon dioxide has hit Britain's biggest brewers and soft drink makers, **disrupting production just as drinkers' thirst peaks due to a heatwave and a World Cup** soccer tournament in which England is doing unusually well.
3. This impact of bioturbation on global biogeochemistry likely affected animal evolution through expanded ocean anoxia, high atmospheric CO₂ levels and global warming and possibly contributed to a number of mass extinction events.
4. The critical factor was to realise that the biggest changes happen at the lowest levels of animal activity, said Sebastiaan van de Velde, of the Vrije Universiteit Brussel in Belgium. This meant that the first bioturbators had a massive impact.
5. **According to the researchers, this realization was the** "missing piece of the puzzle", and allowed them to construct a mathematical model of Earth around that time to look to the changes caused by these early life forms.
6. The researchers noted that there is an interesting parallel between the earliest animals changing their world in a way that was bad for them, and what we human animals are doing to the planet now.

FIRST CONFIRMED IMAGE OF PLANET BEING FORMED

Scientists have captured the first confirmed image of a planet being formed. The discovery was made by scientists at the Max Planck Institute for Astronomy in Germany, where they captured the planet forming in the swirling dust of a young dwarf star. One of the most powerful planet-hunting instruments on Earth, the SPHERE on the **European Southern Observatory's (ESO)** Very Large Telescope, was used to capture the moment.

What

1. The planet, named PDS 70b, orbits a dwarf star and is at a distance of almost 370 light years from Earth. It falls in the constellation Centaurus.
2. The dwarf star, the PDS 70, is less than 10 million years old, while its planet companion is about five to six million years old.
3. In terms of size, however, this infant planet has a mass that is almost two-three times the size of Jupiter.

4. **Talking about how this planet was discovered, Keppler said, “The problem is that until now, most of these planet candidates could just have been features in the disc.**
5. The advantage of our detection is that we have detected [the new planet] with several different observing instruments, different filter bands and different years.
6. It is located roughly three billion kilometres from the central star, which is approximately the distance between the Sun and Uranus.
7. Since the planet is still in its nascent stages, its surface has not cooled down and is at a temperature of about 1,000 degree Celsius, making it hotter than any planet in our solar system.

BACTERIA-POWERED SOLAR CELL

Scientists, including one of Indian origin, have discovered a low-cost and sustainable way to build a solar cell using bacteria that can harvest energy from light even under overcast skies. The cell, developed by researchers from University of British Columbia (UBC) in Canada, generated a current stronger than any previously recorded from such a device, and worked as efficiently in dim light as in bright light.

What

1. These solar cells – called **“biogenic” because they are made of living organisms** – could become as efficient as the synthetic cells used in conventional solar panels.
2. These hybrid materials that we are developing can be manufactured economically and sustainably, and, with sufficient optimisation, could perform at comparable efficiencies as conventional solar cells.
3. Scientists have successfully mapped the complete koala genome, and say the breakthrough will aid conservation efforts for the vulnerable species- and potentially help humans as well.
4. Solar cells are the building blocks of solar panels. They do the work of converting light into electrical current. Previous efforts to build biogenic solar cells have focused on extracting the natural dye that bacteria use for photosynthesis. It is a costly and complex process that involves toxic solvents and can cause the dye to degrade.
5. The UBC team left the dye in the bacteria. They genetically engineered E coli to produce large amounts of lycopene – a dye that gives tomatoes their red-orange colour and is particularly effective at harvesting light for conversion to energy.
6. The researchers coated the bacteria with a mineral that could act as a semiconductor, and applied the mixture to a glass surface. With the coated glass acting as an anode at one end of their cell, they generated a current density of 0.686 milli amperes per square centimetre – an improvement on the 0.362 achieved by others in the field.
7. **The Holy Grail would be finding a process that doesn’t kill the bacteria, so they can produce dye indefinitely.** There are other potential applications for these biogenic materials in mining, deep-sea exploration and other low-light environments.

‘SAUSAGE’ GALAXY RESHAPED MILKY WAY

Astronomers have discovered an ancient cosmic collision with an object, dubbed the **“Sausage” galaxy** that reshaped the structure of the Milky Way galaxy. The crash was a defining event in the early history of the Milky Way and helped fashion both its inner bulge and its outer halo, according to a series of studies published in the Monthly Notices of the Royal Astronomical Society and The Astrophysical Journal Letters. Scientists propose that around 8 billion to 10 billion years ago, an unknown dwarf galaxy smashed into our own Milky Way. The dwarf did not survive the impact: It quickly fell apart, and the wreckage is now all around us. The collision ripped the dwarf to shreds, leaving its stars moving in very radial orbits that are long and narrow like needles, said Vasily Belokurov of the University of Cambridge in the UK.

What

1. **The stars’ paths take them “very close to the centre of our galaxy. This is a telltale sign that the dwarf galaxy came in on a really eccentric orbit and its fate was sealed.”** Croatia's side can surpass its stars of '98, says Lovren

2. Researchers including those from Cambridge University in the UK used data from the **European Space Agency's Gaia satellite**.
3. This spacecraft has been mapping the stellar content of our galaxy, recording the journeys of stars as they travel through the Milky Way. Thanks to Gaia, astronomers now know the positions and trajectories of our celestial neighbours with unprecedented accuracy. The paths of the stars from the galactic merger earned them **the moniker "the Gaia Sausage"**.
4. The Milky Way continues to collide with other galaxies, such as the puny Sagittarius dwarf galaxy. However, the Sausage galaxy was much more massive. Its total mass in gas, stars and dark matter was more than 10 billion times the mass of our Sun.
5. When the Sausage crashed into the young Milky Way, its piercing trajectory caused a **lot of mayhem. The Milky Way's disk was probably puffed up or even fractured** following the impact and would have needed to regrow.
6. Sausage debris was scattered all around the inner parts of the Milky Way, **creating the 'bulge' at the galaxy's centre and the surrounding 'stellar halo.'**
7. Numerical simulations of the galactic mashup can reproduce these features, said Denis Erkal of the University of Surrey in the UK. In simulations run by researchers, stars from the Sausage galaxy enter stretched-out orbits. The orbits are further elongated by the growing Milky Way disk, which swells and becomes thicker following the collision. Evidence of this galactic remodelling is seen in the paths of stars inherited from the dwarf galaxy, said Alis Deason of Durham University in UK.
8. The Sausage stars are all turning around at about the same distance from the centre of the galaxy. These **U-turns cause the density in the Milky Way's stellar halo** to decrease dramatically where the stars flip directions.
9. This discovery was especially pleasing for Deason, who predicted this orbital pileup almost five years ago. The new work explains how the stars fell into such narrow orbits in the first place.

KEPLER TELESCOPE ALMOST OUT OF FUEL

NASA's Kepler Space Telescope is almost out of fuel and has been forced to take a nap. Flight controllers placed the planet-hunting spacecraft into hibernation last week to save energy. It will remain asleep until early August, when controllers attempt to send down the data collected before observations were interrupted.

What

1. Kepler has been searching for planets outside our solar system for nearly a decade. **Considered the pioneer of planet hunting, it's discovered nearly 3,000 confirmed worlds** and as many potential candidates.
2. Launched in 2009, Kepler has endured mechanical failures and other mishaps. But **there's no getting around an empty fuel tank**.
3. **The fuel is needed for pointing the telescope. Kepler's antenna must be pointed toward Earth to get the most recent observations back. For now, that's the team's highest priority.**

MISCELLANEOUS

LATEST DATA FROM SNB

India has moved up to 73rd place in terms of money parked by its citizens and companies with Swiss banks, while the UK remains on the top. India had slipped to 88th place with a 44 per cent plunge in such funds during 2016, but the latest data from the Swiss National Bank (SNB) shows an increase of over 50 per cent during 2017 to CHF 1.01 billion. Pakistan is now placed one place higher than India at 72nd position, down one slot, after 21 per cent dips in funds from that country in Swiss banks during 2017.

What

1. The funds, described by SNB as 'liabilities' of Swiss banks or 'amounts due to' their clients, are official figures disclosed by Swiss authorities and do not indicate to the exact quantum of the much-debated alleged black money held in famed safe havens of Switzerland.
2. India will start getting this automatic data from next year, while it has already been getting information on accounts where proof of illicit funds can be furnished.
3. The funds officially held by Indians with banks in Switzerland now accounts for only 0.07 per cent, though up from 0.04 per cent a year ago, of the total funds kept by all foreign clients in the Swiss banking system, as per an analysis of the latest figures compiled by the SNB (Swiss National Bank) as on 2017-end.
4. India was placed at 75th position in 2015 and at 61st in the year before, though it used to be among top-50 countries in terms of holdings in Swiss banks till 2007. The country was ranked highest at 37th place in the year 2004.
5. The total money held in Swiss banks by foreign clients from across the world rose by about 3 per cent to CHF 1.46 trillion (about Rs 100 trillion) in 2017.
6. In terms of individual countries, the UK continued to account for the largest chunk at about CHF 403 billion (over 27 per cent) of the total foreign money with Swiss banks. The UK saw an increase of over 12 per cent in such funds.
7. The US remains on the second position despite a dip of about 6 per cent in such funds to CHF 166 billion (11 per cent share of all foreign funds). No other country accounted for a double-digit percentage share, while others in the top-ten included West Indies, France, Hong Kong, Bahamas, Germany, Guernsey, Luxembourg and Cayman Islands.
8. Others ranked higher than India are: Singapore, UAE, Saudi Arabia, Panama, Japan, Jersey, Australia, Netherlands, Italy, Belgium, Cyprus, Israel, Mexico, Bermuda, Turkey, Kuwait, Marshall Islands, Canada, Thailand, South Korea, Malaysia, Belize, Isle of Man, Indonesia, Seychelles, Gibraltar, Samoa, New Zealand, Philippines, Iran, Kazakhstan and Ukraine.
9. Those ranked below India were Mauritius (77th place), Bangladesh (95th), Sri Lanka (108th), Nepal (112th), Vatican City State (122nd), Iraq (132nd), Afghanistan (155th), Burkina Faso (162nd), Bhutan (203rd), North Korea (205th) and Palau was last at 214th place.
10. The total money belonging to the developed countries rose 10 per cent to CHF 876 billion, while those from developing nations rose marginally to CHF 209 billion. The offshore financial centres actually saw a dip of 3 per cent to CHF 378 billion.
11. India was ranked in top-50 continuously between 1996 and 2007, but started declining after that -- 55th in 2008, 59th in 2009 and 2010 each, 55th again in 2011, 71st in 2012 and then to 58th in 2013.

GOLDEN GLOBE RACE 2018

Commander Abhilash Tomy of the Indian Navy is all set to head off on a unique voyage. The officer is the only invitee from Asia to participate in the prestigious Golden Globe Race (GGR) **that commences from Les Sables d'Olonne harbour in France on 1 July 2018**. The participants are required to sail around the world, single-handed and non-stop. The uniqueness of the race is that boat designs and technology newer than 1968 is not permitted, hence use of Global Positioning System (GPS), satellite communication, navigational aids, etc is forbidden.

What

1. The Golden Globe Race is being conducted by Sir Robin Knox Johnston of UK to **commemorate 50 years since the world's first solo non-stop circumnavigation** undertook by him in 1968 onboard the Indian built boat, Suhaili.
2. **Commander Abhilash Tomy is one of India's most prominent sailors. He has covered 53,000 nautical miles under sail, including a solo non-stop circumnavigation of the globe in 2012-13 onboard Indian Naval Sailing Vessel (INSV) Mhadei.** He is also a recipient of the Kirti Chakra, Mac Gregor and Tenzing Norgay awards.

3. Commander Abhilash Tomy is representing India, sailing on a replica of Suhaili. The indigenously built sailing vessel **'Thuriya'** has been built by M/s Aquarius Shipyard Ltd at Goa. The boat showcases India's boat building capability on the world forum and promotes the **'Make in India' initiative**.
4. Thuriya stands for pure consciousness and is the background that transcends the three common states of consciousness, namely waking consciousness, dreaming and dreamless sleep.

SC DEADLINE FOR FINAL NRC DRAFT

The Supreme Court on 2 July 2018 extended by one month till July 30 the deadline for publication of the final draft of **Assam's** National Register of Citizens (NRC). A bench of Justices Ranjan Gogoi and R F Nariman extended the deadline after state NRC coordinator Prateek Hajela informed court that it would not be possible to release the final draft of the NRC on June 30 due to floods in state.

What

1. The court, however, said the task of preparing NRC which is intended to identify illegal migrants in the state must be finished by July 30.
2. The bench also directed the chief secretary and DGP of Assam to immediately provide adequate security to Hajela and his family members to enable him to discharge his duty **"effectively and fearlessly"**.
3. It asked the authorities to assess the security threat to Hajela within a week and file the action taken report.

WAPCOS CELEBRATES FOUNDATION DAY

50th Foundation Day celebration of Water and Power Consultancy Services (WAPCOS) was organized at Pravasi Bhartiya Kendra, New Delhi. WAPCOS was incorporated as a Public Sector Enterprise in 1969 by the Government of India. It is a techno-commercial organization under the aegis of Ministry of Water Resources, River Development and Ganga Rejuvenation. WAPCOS has done Survey & Investigation/Pre-Feasibility/DPRs for more than 550 Projects in Irrigation, Water Resources and Agricultural etc.

What

1. The company has contributed in development of over 15 Million Ha irrigation potential; more than 200 projects in ports and inland navigation; over 500 projects in water supply and sanitation, rural and urban development, roads and highway engineering, EIAs for over 250 projects in the fields of irrigation, hydro/thermal power, ports and harbours in India and abroad.
2. In the Hydro-Power sector; WAPCOS has completed almost 52 Hydro-Power Projects in 19 countries with an installed capacity of more than 20,500 MW; over 105 Hydro Power Projects in India with an installed capacity of more than 9,000 MW.
3. In Thermal Power; the Company has successfully completed 12 overseas projects with installed capacity of more than 2,900 MW and 37 projects in India with an installed capacity of more than 12,000 MW. In Transmission & Distribution WAPCOS has accomplished more than 14 Projects in India and Abroad.
4. The company has successfully completed/on-going consultancy assignments in countries covering Asia, Africa, Middle East, and the Pacific Islands and is operating in more than 45 Countries, at present.
5. It has grown into a true Indian multinational with footprints across the globe in line **with Government of India's flagship programmes on "Skill India" and "Make in India"**. The company has successfully undertaken some of the most challenging projects in inhospitable circumstances around the world; e.g. Afghan-India Friendship (Salma)

Dam Project, Afghanistan. WAPCOS today has emerged as one of India's best performing "Mini Ratna-I" CPSE.

STATE TO IMPOSES POLYTHENE BAN

The local traders have welcomed the Himachal Pradesh government's recent notification of banning the use and sale of thermocol cutlery across the state. To save the environment from degradation, governor, Acharya Devvrat, banned the use of thermocol cutlery, including cups, plates, glasses and spoons or any other item in the state.

What

1. The manufacturers and shopkeepers have been given three months to finish their stock so that there is no financial loss. After that, a fine of Rs. 500 to Rs. 25,000 will be incurred. If someone is found throwing thermocol cutlery, he/she will also be penalised.
2. It should be noted Himachal Pradesh was the first state in the country to ban plastic and polythene carry bags in 2009.
3. In 2011, High Court had also banned the single use of plastic, plates, packed materials, cups and glasses but it was later challenged in apex court of the country.
4. The Uttar Pradesh government too, last week, announced a ban on plastic, which will be implemented in the state from July 15.
5. Earlier this year, the Maharashtra government had issued a notification, imposing a ban on the manufacture, use, sale and distribution of all plastic materials like plastic bags, spoons, plates, bottles and thermocol items.
6. Telangana government also instructed municipal bodies across the state against usage of plastic.

FIRST EVER 'INDIA TOURISM MART'

The Minister of State for Tourism, Shri K. J. Alphons announced that the Tourism Ministry in partnership with the Federation of Associations in Indian Tourism and Hospitality (FAITH) and with the support of State /UT Governments will organize the **'first ever' India** Tourism Mart (ITM) from 16th to 18th September, 2018 at Vigyan Bhawan, New Delhi. The objective of the event is to create an annual Global Tourism Mart for India in line with major international travel marts being held in countries across the world.

What

1. The Mart will provide a platform for all stakeholders in the tourism and hospitality industries to interact and transact business opportunities.
2. The Tourism Ministry has been conducting foreign road shows, releasing theme based promotional videos and thus, the ITM 2018 will be a big step which will get buyers from all over the world.
3. Through ITM 2018, India can showcase its hidden destinations to the world, especially to emerging tourism markets like China, Latin America, and Japan etc.
4. **The Minister also hoped that with this event, the Government's aim of bringing the Tourist footfall to double in next three years shall be fulfilled.**
5. The Chairman of the organizing committee and FAITH Secretary, Shri Subhash Goyal said that it has been for the first time that the Tourism industry stakeholders are coming together **for such a large scale event and with Ministry's support and quick decision the ITM 2018 has now been realized.**
6. He conveyed that FAITH is the apex organization of all the important trade and hospitality associations of the country with all the 10 major Tourist organizations like FHRI, HAI, IATO being involved in this mega event and India Convention Promotion Board (ICPB) shall coordinate the whole event.
7. The event will be formally inaugurated on 17th September, 2018 and B2B meetings between buyer and seller delegates will be held on 17th and 18th September, 2018.

8. FAITH and State Governments will offer pre and post event FAM trips (Familiarization trips) for the buyer delegates from overseas.

ODISHA HAS MOST NON-PERFORMING NGOS

Odisha has the highest number of “non-performing NGOs” in the field of women and child support services in the country, according to the first such list released by the Union Ministry of Women and Child Development to sensitise the public and sponsors about the work done by such organisations. Odisha leads with 289 non-performing NGOs, 80 per cent of the total such NGOs in the state, while Andhra Pradesh is second with 149 non-performing NGOs of the total 190, according to the ministry. Delhi has the least number of non-performers at 43 out of 201.

What

1. This list will be updated though we have not taken a decision on the periodicity, a ministry official requesting anonymity said.
2. The WCD Ministry lists several criteria for classifying non-performers, such as blacklisting by any ministry or autonomous body such as NABARD, National Commission for Women (NCW), Rashtriya Mahila Kosh and Central Social Welfare Board.
3. Sometimes these NGOs take funds for certain activities and do not perform. Even if they do the work, they do not intimate the sponsor regularly and in the correct manner.
4. NGOs that do not have Darpan Portal Registration Number, a facility offered by the NITI Aayog and National Informatics Centre for government to list authentic bodies, or FCRA registration number are also in the non-performing category.
5. **Some NGOs have been designated “blacklisted” while others are said to be “in the process of being blacklisted”.**
6. **Some NGOs on the list, uploaded on the ministry’s website, said they may approach the court to have their names removed.**

AWARDS FOR BEAUTIFICATION OF STATIONS PREMISES

The Union Minister of Railways & Coal, Shri Piyush Goyal distributed awards to winning stations of Station Beautification competition in Rail Bhawan. This innovative competition was organized among Zonal Railways in December 2017. Balharshah & Chandrapur Railway Stations of Central Railway have been awarded the first prize while Madhubani station of East Central Railway & Madurai station of Southern Railway were the co-winners of the second prize. Gandhidham station of Western Railway, Kota station of West Central Railway & Secunderabad station of South Central Railway was joint winners of the third prize.

What

1. Under the guidance of Minister of Railways & Coal, Shri Piyush Goyal, Indian Railways has launched an innovative initiative for the station beautification with wall art of paints and graffiti or local arts with participation of local artists, private groups and volunteers.
2. More than 62 stations across Zonal railways have been beautified under this initiative by utilizing skills of local artists, mostly using local art form, painting style, local themes or contemporary arts.
3. This initiative provided forum for expression of the emerging talents in the area and visibility of local art forms to the travellers.

Flashpoint

1. 1st Prize: Balharshah & Chandrapur Railway stations (Central Railway) – Rs.10 Lakhs.
2. 2nd Prize: Madhubani Railway station (East Central Railway) & Madurai Railway station (Southern Railway) – Rs. 5 Lakhs.
3. 3rd Prize: Gandhidham Railway station (Western Railway), Kota Railway station (West Central Railway) & Secunderabad Railway station (South Central Railway) – Rs. 3 Lakhs.

4. An evaluation committee of senior officials of Ministry of Railways was constituted to judge the entries of the stations who participated in this initiative.
5. The entries were evaluated on the basis of a number of criterion including depiction of local subjects, culture & themes, Overall harmony of art with the station colours, type of art form used, quality of work done.
6. The award winning entries for the grant of awards given away today were selected on the basis of the recommendations of this committee which were approved by Chairman, Railway Board.

GLOBAL NORMS IN POLIO VACCINE EVALUATION

Global regulators and leading vaccine makers may soon finalise international standards to evaluate Sabin Inactivated Polio Vaccine (sIPV). About 15 global vaccine makers and 20 representatives of regulators including the World Health Organisation (WHO) and US Food and Drug Administration (USFDA) are sharing results and experiences of developing sIPV in a two-day conference which began in Hyderabad.

What

1. As of now, Oral Polio Vaccine is being used to fight polio. But it can cause circulating and virulent vaccine derived polio viruses.
2. Hence, nearly 18 vaccines makers across the globe including India are now in various stages of developing the sIPV.
3. China and Japan have already licensed the sIPV product. In India, Bharat Biotech, Indian Immunological Ltd, among others have been working on developing the vaccine.
4. Others who are working in this area include Beijing Minhai Biotech, Institute of Medical Biology, Kunming, China, and National Institute for Biological Standards and Control, England.
5. The cost of the sIPV will be a challenge for affordable pricing. While OPV costs 14 cents per dose, sIPV may cost above \$1.

Flashback

1. In 2008, the WHA recommended the WHO develop safer inactivated poliovirus vaccine (IPV) production technology using attenuated seed strains, such as Sabin polioviruses (Sabin-IPV).
2. Sabin-IPV technology would partly address the biosafety risks associated with Sabin-IPV production, therefore allowing for production in developing countries.
3. The immunogenicity of Sabin-IPV administered in the primary series has been well-established in different clinical studies in China, Japan, Poland, and Cuba, some of which demonstrated that Sabin-IPV induced adequate neutralizing antibodies to both Sabin and wild poliovirus.

4TH NATIONAL CONCLAVE ON MINES & MINERALS

The Ministry of Mines organized the 4th National Conclave on Mines & Minerals on 13th July 2018 at Indore, Madhya Pradesh. State Mining ministers, officials of central ministries including Ministry of Environment, Forest and Climate Change (MoEFCC), officials of the state government, CEOs of mining industries, industry associations, academic institutions and others participated in the conclave.

What

1. Union Minister of Mines and Union Minister of State for Mines were present in the conclave along with 6 states Mining Ministers, CEO NITI Aayog and Union Steel Secretary.
2. Chief Minister of Madhya Pradesh Shri Shivraj Singh Chauhan was the chief guest of the conclave. He emphasized on the importance of mining in the state of Madhya Pradesh and acknowledged the efforts of Ministry of Mines in bringing transparency in the mining sector.

3. The Minister of Mines highlighted the notable turnaround ever since the government took initiative for policy reforms which is evident from the robust growth of 6% of the mineral production in terms of volume and 23.4% in terms of value.
4. With average annual accrual of Rs 6000 crore and present accumulated fund of Rs 19,500 crores, District Mineral Foundation (DMF) has ushered in the positive perception about mining industry by way of developmental works for the people and area affected by mining.
5. For the first time, the conclave had an exhibition in which States put up stalls to showcase their more than 100 mineral blocks which have been prepared to be put up on auctions during 2018-19.
6. The agencies concerned with pre-auction preparations such as exploration agencies (GSI & MECL), transaction advisors (SBICAP, CRISIL, KPMG), DGPS survey agency (MECON), etc also put up their Stalls. IBM & MoEFCC also put up stalls on mining plan and EC & FC processes.
7. Participation from the public sector and private sector companies in the exhibition on mineral and metal industry also provided an overview for better appreciation of mining sector by the investors in terms of making investment decisions.
8. Two technical sessions were also held during the conclave. The State governments showcased the mineral blocks which are to be auctioned in the financial year 2018-19 in the first technical session.
9. In the second technical session, presentations for the different stages in auctioning of a mineral block and its operationalization such as identification and preparation of a mineral block for auction, steps involved in approval of mining plan and grant of statutory clearances, were highly appreciated.
10. Important bulletins of Geological Survey of India were also released along with an 'at a glance on mineral exploration in India'.
11. **Booklets of NALCO and HCL on 'Aluminium –the future metal' and 'from waste to secondary resources' respectively** were also released. An app of NALCO – NAMASYA was also launched by the Ministers.
12. In order to recognize efforts of the officials and to reward them for excellence in implementing auction regime, officials from various State Governments were awarded during the conclave who had extraordinary contributions in the completion of Auctions.
13. The conclave, first of its kind, will go a long way in strengthening the efforts of the Ministry in enabling the mining sector to contribute its fullest to foster the rapid growth of national economy and employment generation.
14. It will help the Central Government to further improve the policy environment to promote best practices and addressing various issues in the mining sector leading to the enhanced contribution to GDP.

PRESIDENT NOMINATES FOUR MEMBERS TO RAJYA SABHA

In exercise of the powers conferred by Article 80 of the Constitution of India, and on the advice of the Prime Minister, the President of India is pleased to make the following four nominations to the Rajya Sabha:

1. Shri Ram Shakal: He is an **eminent people's leader and** public representative from Uttar Pradesh, who has devoted his life for the welfare and well-being of the Dalit community. A farmer leader, he is widely respected for championing the cause of farmers, labourers and migrants. He has

Background

1. Article 80(1)(a) read with Article 80(3) of the Constitution of India provides that the President can nominate to Rajya Sabha, 12 persons having special knowledge, or practical experience in respect of literature, science, art and social service.
2. There were, currently, eight nominated members in the Rajya Sabha, and hence, four vacancies.

- also been a three-time Member of Parliament, representing Robertsganj constituency of Uttar Pradesh.
2. Shri Rakesh Sinha: A respected and widely read author, Shri Rakesh Sinha is the Founder and Honorary Director of the Delhi-based think-tank “India Policy Foundation.” A Professor of Motilal Nehu College of Delhi University, he is also currently a member of the Indian Council of Social Science Research. He is a regular columnist in a range of newspapers.
 3. Shri Raghunath Mohapatra: He is an internationally renowned authority on stone carving. Practicing since 1959, he has trained over 2000 students. He has contributed to the preservation of traditional sculpture and ancient monuments, and has worked on the beautification of the Sri Jagannath Temple, Puri. His famous works include a 6 feet high statue of the Sun God carved in grey sandstone, in the Central Hall of Parliament; and the Wooden Buddha, Buddha Temple, Paris.
 4. Smt Sonal Mansingh: **She is among India’s foremost exponents** of Indian Classical Dance. She has been performing Bharatnatyam and Odissi for over six decades. She is also a well-known choreographer, teacher, orator and social activist. She founded the Centre for Indian Classical Dances, in Delhi in 1977.

12TH CENTURY COINS DUG UP IN BASTAR

Workers in Bastar’s Kondagaon district unearthed a pot of gold coins while digging at a road construction site. Archaeologists have dated the treasure to the 12-13th century. The pot was discovered by a woman worker in Keshkal block about 60km from the district headquarters but no one dared touch it.

What

1. The belief is anyone who dips their hand into buried treasure is cursed. So the workers gingerly upturned the pot to find 57 gold coins, a silver coin and a gold earring.
2. The script inscribed on the coins was prevalent during the time of Yadav dynasty, which ruled over Vidarbha.
3. A woman labourer working on the road was the first one to discover it as she dug a few feet underground.
4. The woman found it buried informed other workers who then informed the villagers. Although a detailed examination is yet to be done, the coins could be from the 12th and 13th century, as per the results of a preliminary investigation.
5. The coins carry inscriptions in a script which was prevalent during the time of Yadav dynasty which ruled over Vidarbha.
6. The Yadav dynasty had a kingdom stretching from Narmada and Tungabhadra rivers to some parts of Karnataka and Madhya Pradesh.
7. The same dynasty was also spread out to Dandakaranya, which includes as many as seven districts from the Bastar region in present-day Chhattisgarh.
8. As per the collector, the pot of gold coins has been sent to the state archaeological department who will examine it further.