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PAKISTAN SHARES WITH INDIA LIST OF NUCLEAR INSTALLATIONS

The agreement, which was signed on December 31, 1988 and entered into force on January 27, 1991, provides, that the two countries inform each other of nuclear installations and facilities to be covered under the agreement on the first of January of every calendar year. The list was handed over in accordance with Article-II of the Agreement on Prohibition of Attacks Against Nuclear Installations and Facilities between Pakistan and India, signed on December 31, 1988, the Foreign Office (FO) said in a statement here.

The agreement, which was signed on December 31, 1988 and entered into force on January 27, 1991, provides, inter alia, that the two countries inform each other of nuclear installations and facilities to be covered under the agreement on the first of January of every calendar year. "This has been done consecutively since January 1, 1992," the FO said. The practice of exchanging lists of nuclear installation has endured despite many low in bilateral ties.

LS PASSES MEDICAL COUNCIL BILL

The Lok Sabha on Monday passed the Indian Medical Council (Amendment) Bill to allow a panel of eminent professionals to run the scam-tainted Medical Council of India (MCI) so that medical education can be regulated in the best manner.

The Bill seeks to replace an ordinance issued in September 2018.

Health Minister Jagat Prakash Nadda said this Bill superseded the MCI and the powers of the council had been vested in a Board of Governors (BoG). The BoG will have all eminent personalities and include directors of AIIMS and PGI, Chandigarh. This board will continue to perform till a council is constituted, according to Mr. Nadda.

A separate Bill to replace the MCI with the National Medical Commission is pending in Parliament. "This Bill has been issued so that medical education can be regulated in the best manner," he said.

RAJASTHAN GOVT SCRAPPING EDUCATIONAL CRITERIA FOR LOCAL POLLS

Among the first decisions taken by Ashok Gehlot's government after assuming power in Rajasthan was to scrap minimum educational requirements for candidates contesting local body elections. This is a progressive move and will restore the right to contest, at least in theory, to a large section of the population in the State, where the literacy rate, according to the 2011 Census, was 52% for women and 79% for men. The previous government headed by Vasundhara Raje had stipulated, first through an ordinance in December 2014 and then through the Rajasthan Panchayati Raj (Amendment) Act passed in 2015, educational prerequisites to stand for local polls. It was made mandatory for candidates contesting for the post of sarpanch to have cleared Class 8, and for those in the fray in zila parishad and panchayat samiti elections to have passed Class 10. The move was ill-considered from the very beginning. At the time, the amendment was seen as a bid by the then BJP government to lower the average age of those in the fray based on the assumption that its voters tended to be younger. It was, however, an act of paternalism that militated against the basic assumptions of a liberal democracy. It penalised the people for failure to meet certain social indicators, when in fact it is the state's responsibility to provide the infrastructure and incentives for school and adult education. And it defeated the very purpose of the panchayati raj institutions, to include citizens in multi-tier local governance from all sections of society. These

requirements had the effect of excluding the marginalised.

The Rajasthan government's decision should also force a rethink in Haryana, where the newly sworn-in BJP government had, also in 2015, legislated a series of eligibility requirements for panchayat elections, including education levels and a functional toilet in the candidate's home. The Haryana Panchayati Raj (Amendment) Act, 2015 was upheld that year by the Supreme Court in *Rajbala v. State of Haryana*. And the temptation to expand educational eligibility requirements remains. Union Women and Child Development Minister Maneka Gandhi, for instance, has previously spoken of persuading other Chief Ministers to take the cue from Rajasthan and Haryana, as an incentive for women to study. The decision of the new Congress government in Rajasthan should force a recasting of the debate on finding ways and means by which elected bodies are made more representative. In a liberal democracy, governments must desist from putting bars on who may contest, except in exceptional circumstances, such as when a candidate is in breach of particular laws. To mandate paternalistically what makes a person a 'good' candidate goes against the spirit of the attempt to deepen democracy by taking self-government to the grassroots.

CINEREOUS VULTURE SIGHTED IN JHARKHAND

It is usually during the winter that a distinctly dark large bird – the Cinereous vulture, with a blacked-tipped pink beak – migrates from the mountainous regions of Europe and Asia to warmer places, including India.

While earlier records of this migratory bird have revealed that it comes to northern parts of India up to Rajasthan, bird watchers and researchers were baffled to find it in Hazaribagh in Jharkhand.

"Initially, I could not believe a sight where four rare vultures were seen in one frame, but the photographs taken at the spot revealed what can be a bird watcher's delight," he added. According to him, the three other vultures in the frame were the Himalyan Griffon, White-rumped vulture and the Long-billed vulture.

Experts said the Cinereous vulture (*Aegypiusmonachus*) draws its name from "monachus", which means hooded (like a monk) in Latin. India is home to nine species of vultures and with the population of these birds dwindling, the country has launched a species-recovery plan through conservation breeding centres in different parts of the country.

HOW PIXALIVE, INDIA'S OWN SOCIAL MEDIA APP, CAME INTO PLAY

There's a popular quote in the television series *Game of Thrones* which goes, "Never forget what you are. The rest of the world will not. Wear it like armour, and it can never be used to hurt you." This rings true in the case of Rajasekar Sundaresan, CEO and Founder of PixaLive, a social network application made in India. He decided to wear his social status as an armour after being constantly denied opportunities.

Hailing from a family of farmers in Krishnagiri, Rajasekar was passionate about engineering, but wasn't financially ready. There was a ray of hope when he met Dr APJ Abdul Kalam at MIT, asking for financial support. In a way, the seed for his dreams was sown by Kalam.

CHINA'S CHANG'E-4 LUNAR ROVER LANDS ON MOON'S FAR SIDE, SENDS BACK IMAGES

The scientific tasks of the Chang'e-4 mission include surveying the terrain and landforms, detecting the mineral composition and shallow lunar surface structure

China's Chang'e-4 lunar rover scripted history on January 3 when it made the first-ever soft landing on the far side of the moon and sent back close-up images of the previously unexplored region, a giant leap for cosmic exploration and a major boost to the Communist nation's quest to become a space superpower.

Chang'e-4, named after a Chinese moon goddess and comprising a lander and a rover, touched down at the preselected landing area at 177.6 degrees east longitude and 45.5 degrees south latitude on the far side of the moon at 10:26 a.m. (Beijing time), **China** National Space Administration (CNSA) said.

The lunar explorer landed on the far side of the moon and has already sent back its first pictures from the surface, which were shared by state media. The pioneering achievement is another demonstration of China's ambitions to be a space power. The country aims to land a crewed flight on the moon in the coming decade.

AGRICULTURE, MANUFACTURING TO PUSH GDP GROW TO 7.2% IN 2018-19: CSO

Indian economy is expected to grow at 7.2% in 2018-19, a tad higher than 6.7% in the previous fiscal, mainly due to improvement in the performance of **agriculture** and manufacturing sectors, the Central Statistics Office (CSO) said on Monday.

The CSO estimate is, however, a bit lower than 7.4% growth projected by the Reserve Bank for the current fiscal.

Releasing the first advance estimates of National Income for 2018-19, the CSO said, "The growth in GDP during 2018-19 is estimated at 7.2% as compared to the growth rate of 6.7% in 2017-18."

The gross domestic product (GDP) had expanded by 7.1% in 2016-17 and 8.2% in 2015-16.

"Real GVA (Gross Value Added) is anticipated to grow at 7% in the current fiscal as against 6.5% in 2017-18," it said.

PARLIAMENT PASSES BILL TO PROVIDE 10% QUOTA FOR POOR

Parliament cleared the 124TH Constitutional Amendment Bill guaranteeing 10% quota in education and employment to economically weaker sections in the general category, following an approval by the **Rajya Sabha**.

The Upper House nod came following an over nine-hour-long heated debate, during which the Opposition accused the government of bringing the Bill in haste with an eye on the coming Lok Sabha election.

Even if it is arguable that such a move will create deserving opportunities to those outside the purview of caste-based reservations, in *Indira Sawhney* a nine-judge bench had struck down a provision that earmarked 10% for the economically backward on the ground that economic criteria cannot be the sole basis to determine backwardness. Any attempt to amend the Constitution to extend what is limited to the "socially and educationally backward" to those economically weak is problematic.

If the amendment is challenged, a question that will arise is whether financial incapacity warrants special treatment. With the income ceiling for eligibility likely to be fixed at ₹8 lakh a year — the same as the 'creamy layer' limit above which OBC candidates now enjoying reservations become ineligible — an uneasy parity has been created between socially and educationally backward classes with limited means and those who are socially and educationally advanced with the same limitation.

INDIA HAS LOST HIGHEST NUMBER OF PERSONNEL IN UN PEACEKEEPING MISSION

India has suffered the highest number of fatalities (164 out of 6,593 personnel) among countries that have sent forces to the United Nations peacekeeping mission since 1948. Ethiopia and Rwanda have contributed the highest number of personnel, followed by three Asian countries — Bangladesh, India and Nepal. These five nations together account for a third of the total peacekeeping force.

Nearly 80% of the Indian peacekeepers are deployed in Central African Republic and South Sudan in various sections. Most of the deaths occurred during missions to Congo in the 1960s and former Yugoslavia in the 1990s.

DIGITAL E-CHOUPAL TO TURN AGGREGATOR, OFFER MORE SERVICES

E-Choupal, the two-decade old initiative from ITC aimed to web-enable farmers to overcome challenges related to information access and procurement, is set for a major makeover this year.

Driven by increasing smart phone penetration in the country coupled with declining data costs, the FMCG and hospitality conglomerate plans to launch a mobile version of the programme by middle of 2019.

“We are now working on a new model for expansion of the e-Choupal network with lower bandwidth costs and increasing smart phone penetration. The new model, which we are calling e-Choupal 4.0, will be rolled out in the next couple of months...the desktop based e-Choupal will become mobile assisted services with a very different cost structure,” S. Sivakumar, who heads the Agri and IT Businesses at ITC said.

BAN ON PLASTIC

India won global acclaim for its “Beat Plastic Pollution” resolve declared on World Environment Day last year, under which it pledged to eliminate single-use plastic by 2022. So far, 22 States and Union Territories have joined the fight, announcing a ban on single-use plastics such as carry bags, cups, plates, cutlery, straws and thermocol products.

Governments must start charging the producers for their waste, and collect it diligently, which will lead to recovery and recycling. But the depressing reality is that State and local governments are unwilling to upgrade their waste management systems, which is necessary to even measure the true scale of packaging waste. The Plastic Waste Management Rules, 2016 are clear that producers, importers and brand owners must adopt a collect-back system for the plastic they introduce into the environment. prohibition on flimsy plastics that are typically used for under 15 minutes, but to recover thousands of tonnes of waste that end up in dumping sites.

ANTARCTICA ICE MELTING INCREASED BY 280% IN LAST 16 YEARS

Yearly loss of ice from Antarctica has increased by an alarming rate of 280% between 2001 and 2017, according to a study which showed that accelerated melting caused global sea levels to rise more than half an inch in the last four decades.

The researchers, including those from NASA’s Jet Propulsion Laboratory (JPL) and Utrecht University in the Netherlands, were able to discern that between 1979 and 1990, Antarctica shed an average of 40 gigatonnes of ice mass annually.

From 2009 to 2017, about 252 gigatonnes per year were lost. The pace of melting rose

dramatically over the four-decade period. From 1979 to 2001, it was an average of 48 gigatonnes annually per decade. The rate jumped 280% to 134 gigatonnes for 2001 to 2017.

NUMALIGARH REFINERY CAPACITY TO BE TRIPLED

The Cabinet Committee on Economic Affairs on Wednesday approved tripling the capacity of the Numaligarh Refinery in Assam to 9 million metric tonnes per annum (mmtpa) at a cost of ₹22,594 crore.

The Cabinet also approved the setting up of a crude oil pipeline from Paradip to Numaligarh and a product pipeline from Numaligarh to Siliguri. The project is to be completed within 48 months, after approval and receipt of the statutory clearances.

NREGA GETS ADDITIONAL ₹6,084 CR.

After exhausting 99% of its annual allocation three months ahead of time, the National Rural Employment Guarantee (NREGA) scheme has been given an additional allocation of ₹6,084 crore to tide over the next three months.

This lifts the total allocation to MGNREGA for 2018-19 to ₹61,084 crore, which is the highest ever allocation, according to a statement from the Ministry of Rural Development.

RBI EASES NORMS FOR EXTERNAL COMMERCIAL BORROWING

In a bid to improve ease of doing business, the Reserve Bank of India has decided to liberalise external commercial borrowing (ECB) norms, allowing all companies that are eligible for receiving foreign direct investment, to raise funds through the ECB route.

“The list of eligible borrowers has been expanded. All entities eligible to receive foreign direct investment can borrow under the ECB framework,” the central bank said in a statement on Wednesday. The new framework takes immediate effect.

“It has now been decided, in consultation with the Government of India, to rationalise the extant framework for ECB and Rupee denominated bonds to further improve the ease of doing business,” the RBI said.

The RBI has decided to keep the minimum average maturity period at 3 years for all ECBs, irrespective of the amount of borrowing, except for borrowers specifically permitted to borrow for a shorter period. Earlier, the minimum average maturity period was five years. The ceiling for borrowing remains at \$750 million.

DD SCIENCE CHANNEL LAUNCHED

Two new science communication platforms — DD Science and India Science — were launched by Minister for Science and Technology Dr. Harsh Vardhan here on January 15.

DD Science is a joint initiative of Vigyan Prasar, an autonomous organisation under the Department of Science and Technology (DST) and public broadcaster, Doordarshan. It is a one-hour slot on Doordarshan National channel, which will be telecast from Monday to Saturday from 5 pm to 6 pm. India Science is an online channel available on all internet-enabled devices. It offers live, scheduled play and video-on-demand science programming.

BENEFITS OF RCEP AGREEMENT

The Regional Comprehensive Economic Partnership (RCEP), which is a proposed Free Trade Agreement between ten ASEAN member states and their six Free Trade

Agreement (FTA) partners namely India, Australia, China, Japan, New Zealand and Republic of Korea, is expected to provide market access for India's goods and services exports and encourage greater investments and technology into India. It would also facilitate India's MSMEs to effectively integrate into the regional value and supply chains. On the other hand, India is not a member of the Asia-Pacific Economic Cooperation (APEC) which is a grouping of twenty-one countries in the Asia Pacific region with an aim to deepen and strengthen economic and technological cooperation amongst APEC member countries.

SIDDRAMESHWAR SIDDHARAM HUMANABADE

Shri Santosh Kumar Gangwar, Minister of State for Labour and Employment honoured today Mr. Siddrameshwar Siddharam Humanabade, Food Delivery Boy who has acted as a saviour in helping the fire victims of the tragic fire accident at ESIC Hospital, Andheri, Mumbai on 17.12.2018 and saved the lives of 10 persons beyond the call of his duty.

He said, "It is also praiseworthy, to mention that Mr. Siddrameshwar continued his selfless service for rescuing the victims until he started feeling uncomfortable due to inhaling of toxic gases due to the fire. In recognition of his courage, selfless nature and missionay zeal, I am also pleased to reward Mr. Siddrameshwar a sum of Rs. 1,00,000/- (Rupees One Lakh only)."

HIGH LEVEL COMMITTEE TO THE IMPLEMENT CLAUSE 6 OF ASSAM ACCORD

The Union Cabinet chaired by Prime Minister Shri Narendra Modi approved the setting up of a High Level Committee for

implementation of Clause 6 of the Assam Accord and measures envisaged in the Memorandum of Settlement, 2003 and other issues related to Bodo community.

After Assam agitation of 1979-1985, Assam Accord was signed on 15th August, 1985. Clause 6 of the Assam Accord envisaged that appropriate constitutional, legislative and administrative safeguards, shall be provided to protect, preserve and promote the cultural, social, linguistic identity and heritage of the Assamese people.

However, it has been felt that Clause 6 of the Assam Accord has not been fully implemented even almost 35 years after the Accord was signed. The Cabinet, therefore, approved the setting up of a High Level Committee to suggest constitutional, legislative and administrative safeguards as envisaged in Clause 6 of the Assam Accord. The Committee shall examine the effectiveness of actions since 1985 to implement Clause 6 of the Assam Accord. The Committee will hold discussions with all stakeholders and assess the required quantum of reservation of seats in Assam Legislative Assembly and local bodies for Assamese people. The Committee will also assess the requirement of measures to be taken to protect Assamese and other indigenous languages of Assam, quantum of reservation in employment under Government of Assam and other measures to protect, preserve and promote cultural, social, linguistic identity and heritage of Assamese people.

The Cabinet also approved a number of measures to fulfil the outstanding issues related to the Bodo community. The Bodo Accord was signed in 2003 which resulted in the establishment of a Bodoland Territorial

Council under Sixth Schedule of the Constitution of India.

The Cabinet today approved the establishment of a Bodo Museum-cum-language and cultural study center, modernization of existing All India Radio Station and Doordarshan Kendra at Kokrajhar and naming a Superfast Train passing through BTAD as ARONAI Express.

106TH SESSION OF INDIAN SCIENCE CONGRESS, PUNJAB

The Prime Minister, Shri Narendra Modi, delivered the inaugural address at the 106th session of the Indian Science Congress. Reflecting on the theme of the event this year - 'Future India: Science and Technology' - the Prime Minister said that India's true strength will be in connecting its science, technology and innovation, with its people.

The Prime Minister recalled our former Prime Ministers Shri Lal Bahadur Shastri ji and Shri Atal Bihari Vajpayee ji. He said that Shastri ji gave us the slogan: "Jai Jawan, Jai Kisan," while Atal ji added "Jai Vigyan" to it. He said that now the time has come to take a step further, by adding "Jai Anusandhan."

The Prime Minister mentioned major achievements of Indian science in 2018, including:

- production of aviation grade biofuel;
- DivyaNayan - a machine for visually impaired;
- inexpensive devices for diagnosis of cervical cancer, TB and dengue
- a real-time landslide warning system in the Sikkim-Darjeeling region.

INTEGRATION OF MANDIS WITH e-NAM

585 wholesale regulated markets/ Agriculture Produce Market Committee (APMC) Markets have been so far integrated with e-market (e-NAM) platform in 16 States and 2 Union Territories (UTs), who have carried out requisite reforms in their State Agriculture Produce Marketing Committee Act (APMC Act).

States desirous of linking their mandis with e-NAM are required to carry out 3 marketing reforms in their APMC Act i.e. Single point levy of mandi fee, Unified trade license valid across all mandis of State and Provision of e-auction. After carrying out reforms, States are required to propose their wholesale regulated markets for integration with e-NAM platform based on States priorities, which are then considered by Government of India for integration.

INDIA HAS 7 DISPUTES AT WTO

India has 7 disputes at WTO which are at different stages of settlement. India is defending its interest in these disputes with the help of experienced Law Firms.

1. Import of poultry and poultry products from United States, Complainant: India,
2. Countervailing duty by United States on Indian steel products, Complainant: India,
3. National Solar Mission dispute with United States, Complainant: United States,
4. United States' Sub-Federal Renewable energy programme, Complainant: India,
5. India-certain Measures on imports of iron and steel products from Japan, Complainant: Japan,
6. Export Subsidies measures of India, Complainant: United States,

7. United States-Certain measures of United States on steel and aluminium products, Complainant: India.

This information was given by the Minister of State of Commerce and Industry, C. R. Chaudhary, in a written reply in the Lok Sabha today.

GANDHI CIRCUIT

The Government commemorated centenary of Champaran Satyagrah during the period for April, 2017 to April, 2018. A National Implementation Committee (NIC) headed by the Home Minister had been constituted for the purpose.

Development of Gandhi Circuit in Bihar is one of the projects identified for development under the Special Package for Bihar announced by the Prime Minister in 2015. A project for "Development of Gandhi Circuit: Bhitiharwa-Chandrahia-Turkaulia under Rural Circuit theme of Swadesh Darshan Scheme" has been sanctioned in Bihar with central financial assistance of Rs. 4465.02 lakh.

STATUS OF SAGY

An Adarsh Gram evolves out of people's shared vision, using their capacities and available resources to the best extent possible, duly facilitated by the Hon'ble Member of Parliament, the Gram Panchayat, civil society and the government machinery. The elements of an Adarsh Gram are context specific. The Gram Panchayats adopted under SAGY prepare Village Development Plans (VDP) through a participatory process under the guidance of Hon'ble Members of Parliament. The VDP includes prioritised time-bound activities to achieve holistic progress of the village. The progress of implementation of the VDPs in the SAGY Gram Panchayats as reported is satisfactory. As per data updated by the States/UTs on the SAGY website till 2nd January 2018, VDPs have been prepared by

1,155 Gram Panchayats containing 63,586 projects, out of which 32,682 (51%) projects are completed.

SATURN'S RINGS ARE YOUNGER THAN THOUGHT

Saturn's rings are one of our solar system's magnificent sights, but may be a relatively recent addition, according to data obtained from NASA's Cassini spacecraft before the robotic explorer's 2017 death plunge into the giant gas planet.

Scientists said that a calculation of the mass of the rings based on gravitational measurements of the planet collected by Cassini indicated they formed between 100 million and 10 million years ago in roughly the final 2% of Saturn's current age.

The findings challenge the notion favoured by some astronomers that the rings developed soon after Saturn formed about 4.5 billion years ago along with the other planets, including the earth.

INDIA RANKS THIRD IN RESEARCH ON ARTIFICIAL INTELLIGENCE

India ranks third in the world in terms of high quality research publications in artificial intelligence (AI) but is at a significant distance from world leader China, according to an analysis by research agency Itihaasa, which was founded by Kris Gopalakrishnan, former CEO and co-founder of Infosys.

The agency computed the number of 'citable documents'— the number of research publications in peer-reviewed journals — in the field of AI between 2013-2017 as listed out by Scimago, a compendium that tracks trends in scientific research publications.

SUPREME COURT ON THE LOKPAL ACT

It should have never come to this on the Lokpal. That it requires a Supreme Court order to nudge the government to make any progress towards establishing the anti-graft institution is a poor commentary on its

functioning. The court has asked the eight-member Search Committee under the Lokpal Act to recommend a panel of names before the end of February.

This shortlist has to be sent to the Selection Committee, headed by the Prime Minister. It has taken five years since the Lokpal Act, 2013, received the President's assent on January 1, 2014, for a Search Committee to even begin its work. It was formed only on September 27, 2018, after Common Cause, an NGO, filed a contempt petition against the government over the delay in constituting the authority despite a Supreme Court verdict in April 2017. It is true that setting up the Search Committee requires some groundwork, as its composition should be drawn from diverse fields such as anti-corruption policy, public administration, law, banking and insurance; also, half its membership should consist of women, backward class, minority and SC/ST candidates.

GROWTH OF STATES IN FY18 GDP

1. Bihar and Andhra Pradesh led the pack among States in terms of GDP growth in financial year 2017-18, clocking 11.3% and 11.2% growth, respectively, compared with the national GDP growth of 6.7% for the year.
2. 12 of the 17 general category States grew faster than the national growth rate.
3. However, it noted that this growth was not equitable, with the gap between the per capita incomes in low-income and high-income States widening over the last five years.
4. Jharkhand, Kerala, and Punjab were at the bottom."
5. Between the financial years 2012-13 and 2016-17, Gujarat, Madhya Pradesh and Karnataka were the fastest growing states, on average.

6. "In Gujarat and Karnataka, manufacturing was the main driver, while in Madhya Pradesh, agriculture and allied activities drove growth on average," the report said. "Among the laggards, West Bengal was dragged down by mining, Jharkhand by electricity and other utilities."
7. On the fiscal front, the report noted that most veered off the Fiscal Responsibility and Budget Management Act (FRBM) line of maintaining their fiscal deficits at 3% of their respective state GDPs.
8. "While the FRBM Act had helped states recover their fiscal health considerably, recent trends show they are slipping. Debt ratios have risen in many States—with the assimilation of UjwalDiscom Assurance Yojana (UDAY), farm loan waivers, and Pay Commission hikes."
9. Looking ahead, in a separate report, India Ratings and Research (Ind-Ra) said that it expected the aggregate fiscal deficit of the States to come in at 3.2% in financial year 2019-20, which is higher than what it forecast in its FY19 Mid-Year Outlook.

INDIA'S RICHEST 1% GET RICHER BY 39% IN 2018; JUST 3% RISE FOR BOTTOM-HALF: OXFAM

1. Indian billionaires saw their fortunes swell by ₹ 2,200 crore a day last year.
2. the top 1 per cent of the country's richest getting richer by 39 per cent.
3. Oxfam further said that 13.6 crore Indians, who make up the poorest 10 per cent of the country, continued to remain in debt since 2004.
4. Oxfam said this increasing inequality is undermining the fight against poverty, damaging economies and

fuelling public anger across the globe.

5. "If this obscene inequality between the top 1 percent and the rest of India continues then it will lead to a complete collapse of the social and democratic structure of this country,"
6. Noting that wealth is becoming even more concentrated, Oxfam said 26 people now own the same as the 3.8 billion people who make up the poorest half of humanity, down from 44 people last year.
7. "India's top 10 per cent of the population holds 77.4 per cent of the total national wealth.
8. The contrast is even sharper for the top 1 per cent that holds 51.53 per cent of the national wealth.
9. "The bottom 60 per cent, the majority of the population, own merely 4.8 per cent of the national wealth.
10. Wealth of top 9 billionaires is equivalent to the wealth of the bottom 50 per cent of the population,"
11. Between 2018 and 2022, India is estimated to produce 70 new dollar millionaires every day, Oxfam said.
12. Oxfam further said getting India's richest 1 per cent pay just 0.5 per cent extra tax on their wealth could raise enough money enough to increase the government spending on health by 50 per cent.
13. It said the combined revenue and capital expenditure of the Centre and states for medical, public health, sanitation and water supply is ₹ 2,08,166 crore, which is less than the country's richest man Mukesh Ambani's wealth of ₹ 2.8 lakh crore.

INF TREATY

The Intermediate-Range Nuclear Forces Treaty (INF Treaty, formally Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Elimination of Their Intermediate-Range and Shorter-Range Missiles) is a 1987 arms control agreement between the United States and the Soviet Union (and later its successor state the Russian Federation). Signed in Washington, D.C. by President Ronald Reagan and General Secretary Mikhail Gorbachev on 8 December 1987, the treaty was ratified by the United States Senate on 27 May 1988 and came into force on 1 June 1988.

The INF Treaty eliminated all nuclear and conventional missiles, as well as their launchers, with ranges of 500–1,000 kilometers (310–620 mi) (short-range) and 1,000–5,500 km (620–3,420 mi) (intermediate-range). The treaty did not cover sea-launched missiles. By May 1991, 2,692 missiles were eliminated, followed by 10 years of on-site verification inspections.

On 20 October 2018, citing Russian non-compliance, US President Donald Trump announced that he was withdrawing the US from the treaty. Numerous prominent nuclear arms control experts, including George Shultz, Richard Lugar and Sam Nunn, urged Trump to preserve the treaty. Russian president Vladimir Putin announced on 20 November 2018 that the Kremlin was prepared to discuss INF with Washington but would "retaliate" if the United States withdrew.

INFLATION CONUNDRUM

Inflation in Consumer Price Index (CPI), at 2.19% in December, is at an 18-month low, while the WPI, at 3.8%, is at an eight-month low.

The Reserve Bank appears to have been blindsided by the CPI number, which is way below projections made during its last few monetary policy pronouncements. The RBI has maintained a CPI projection of 4.4-4.8%

for the second half of fiscal 2019. Even in the October policy announcement, the bank projected 3.8-4.5% retail inflation in the second half with upside risk, and even changed its policy stance to “calibrated tightening” from “neutral”.

The MPC and the RBI may well want to reassess the robustness of their inflation projection mechanism in light of the data coming in. When the new Governor, Shaktikanta Das, sits down with the monetary policy committee (MPC) in early February he may well have to return to a “neutral” stance given the soft trends in headline CPI.

ARTECH 2019

In its quest for modernization through optimum use of emerging technologies, Indian Army organised the Army Technology Seminar-2019 (ARTECH 2019) on the theme “Disruptive Impact of Emerging Technologies on Land Warfare” at Manekshaw Centre, Delhi Cantt on 11 Jan 2019. The seminar was aimed to bring together stakeholders in the military, academia and industry to provide perspective on the available and emerging technologies which could have an impact on warfighting. The event was attended by Dr Subhash Bhamre, Raksha Rajya Mantri, Gen Bipin Rawat, Chief of the Army Staff, Shri Ajay Kumar, Secretary Department of Defence Production and other dignitaries from Ministry of Defence, army, academia and civil defence industry.

SAMAGRA SHIKSHA

The Department of School Education & Literacy, Ministry of Human Resource Development has launched an Integrated Scheme for School Education - Samagra Shiksha from 2018-19. Samagra Shiksha envisages ‘school’ as a continuum from pre-school, primary, upper primary, secondary to senior secondary levels.

PADHE BHARAT BADHE BHARAT

In order to complement the activities under Padhe Bharat Badhe Bharat and inculcate the reading habits among students of all ages, strengthening of school libraries is being undertaken including provision of books by providing library grant for government schools, under the newly launched centrally sponsored scheme of Samagra Shiksha from 2018-19.

For the first time the provision for separate annual library grant has been made covering schools from Primary to Senior Secondary. Reading corners have been created to inculcate habit of reading among children. Library Grant of Rs.5,000 to Rs.20,000 has been provisioned from Primary to Senior Secondary Schools.

UDISE

The Unified District Information on School Education (UDISE) collects data on all schools in the country. From 2018-19, it has been decided to update the UDISE and introduce new features. The UDISE+ (i.e., UDISE Plus) application will be online and will gradually move towards collecting real-time data. UDISE+ application, in addition to data collection, will have the following features:

- a) A Dashboard with data analytics and data visualization will be developed. It will include time series data to study the trend over years and monitor growth. Progress in Key Performance indicators will be tracked.
- b) The system will be linked to GIS mapping and School Report Cards will be generated.
- c) To ensure data quality, a separate module for third party verification will be developed including a mobile app.

The process of data collection will start in January, 2019.

HIGHER EDUCATION FINANCING AGENCY (HEFA)

1. This is implemented under the initiative of "Revitalising Infrastructure & Systems in Education (RISE) by 2022
2. HEFA will provide Rs 1,00,000 crore in next 4 years
3. Till now about Rs.12700 crore of loan has already been sanctioned.
4. HEFA is also being used by Ministry of Health for funding of construction of four AIIMS. Loan have already been sanctioned to AIIMS Gorakhpur and AIIMS Bhatinda (Punjab).

SCHEME FOR PROMOTION OF RESEARCH COLLABORATION (SPARC)

In order to facilitate research and academic collaboration with top academic institutions in the world, it has been decided that Government will fund such collaboration between Indian institutions which are in top 100 of either subject specific NIRF ranking or aggregate NIRF ranking on one hand and with foreign institutions figuring in top 500 QS world ranking.

About 800 proposals have already been received (last date 7.12.2018). Some of the foreign educational institutions who have already applied for joint collaboration are MIT, Harvard, London School of Economics, National Technological University Singapore, National University of Singapore, University of Cambridge etc.

STARS (SCHEME FOR TRANSFORMATIONAL AND ADVANCED RESEARCH IN SCIENCES)

This scheme has been initiated for accelerating inter-disciplinary and transformative research in the field of science by allowing educational institutions in the hinterland to collaborate with established research centres in science.

Coordinated by IISc Bangalore, STARS aims at making available high end research funding in the field of science to researchers in small educational institutions. Rs.487 crore is earmarked for this.

INNOVATION CELL AND ATAL RANKING OF INSTITUTIONS ON INNOVATION ACHIEVEMENTS (ARIIA)

Innovation cell is MHRD's initiative and has been established at AICTE premises with a purpose to systematically foster the culture of Innovation in all Higher Education Institutions (HEIs) across the country.

For the real outcome there has to be some assessment of what is being done to promote innovation. Therefore, Atal Ranking of Institutions on Innovation Achievements (ARIIA) has also been launched. It will encourage healthy competitiveness among Higher Educational Institutions.

UNNAT BHARAT ABHIYAN & UNNAT BHARAT ABHIYAN 2.0

1. Every institution adopts 5 villages
2. Use of knowledge for social, economic growth
3. Technical institutions design technical solutions for local issues
4. Unnat Bharat Abhiyan (UBA) 2.0-a flagship program of MHRD, 688 institutions are selected on a Challenge Mode (426 technical and 262 non- technical) which are reputed Higher Educational Institutes (both public and private) of the country, which have adopted total no.

of 3555 villages for their development through UBA

SWAYAM (STUDY WEBS OF ACTIVE LEARNING FOR YOUNG ASPIRING MINDS)

The Ministry of HRD has embarked on a major and new initiative called 'Study Webs of Active Learning for Young Aspiring Minds' (SWAYAM), which will provide one integrated platform and portal for online courses, using information and communication technology (ICT) and covering all higher education subjects and skill sector courses.

Till date, more than 72 Lakhs learners have been enrolled in more than 16000+ MOOCs courses that have been run through SWAYAM. 2 lakh persons have completed the courses.

MOOCs is also now being used to train teachers through Annual Refresher Programme in Teaching (ARPIT). 42000 teachers have already registered for their annual refresher course.

WOMANIYA ON GOVERNMENT E MARKETPLACE

Government e Marketplace [GeM] has launched "Womaniya on GeM", an initiative to enable women entrepreneurs and women self-help groups [WSHGs] to sell handicrafts and handloom, accessories, jute and coir products, home décor and office furnishings, directly to various Government ministries, departments and institutions. The initiative seeks to develop women entrepreneurship on the margins of society to achieve gender-inclusive economic growth.

Nearly 80 percent women-owned establishments are self-financed and more than 60 percent of 8 million units are owned and or led by women entrepreneurs from socially-challenged sections of the society. Since women tend to invest up to 90 percent

of their earnings back in their families to provide better nutrition, health care and education to their children, economic empowerment of women is a step in the direction of poverty alleviation.

Womaniya homepage [<https://gem.gov.in/womaniya>] will inform procurement officers in various government ministries, departments and CPSEs about the drive to promote procurement of common use goods and services from women entrepreneurs. Products like handicrafts and handloom, accessories, jute and coir products, home décor and office furnishings are categorized for ease-in-procurement. The initiative aligns with Government's initiatives for MSMEs, especially to reserve 3 percent in government procurement from women entrepreneurs.

Government e Marketplace is a 100 percent government owned company setup under the aegis of Ministry of Commerce and Industry for procurement of common use goods and services by Government ministries, departments and CPSEs. GeM was setup in 2016 and has 731,431 product categories, with 180,862 registered sellers and 32,114 government buyers.

THE GANDHI PEACE PRIZE FOR THE YEARS 2015,2016,2017 AND 2018

1. Vivekananda Kendra, Kanyakumari for the year 2015 for their contribution in Rural Development, Education , Development of natural resources.
2. For 2016 jointly to AkshayaPatra Foundation for its contribution in providing mid-day meals to millions of children across India and Sulabh International for its contribution in improving the condition of sanitation in India and emancipation of manual scavengers.

3. EkalAbhiyan Trust for the year 2017 for their contribution in providing Education for Rural and Tribal Children in remote areas pan India, Rural Empowerment, Gender and Social Equality
4. Shri YoheiSasakawa for the year 2018 for his contribution in Leprosy Eradication in India and across the world.

The jury under the Chairmanship of Prime Minister ShriNarendraModi and comprising the Chief Justice of India, Justice RanjanGogoi, Speaker of LokSabha Smt. Sumitra Mahajan, Leader of the single largest Opposition Party in LokSabha Shri. MallikarjunaKharge and Member of Parliament, Shri L.K. Advani after detailed discussions on 16th January, 2019 unanimously decided to select the above organisation/persons in recognition to their outstanding contributions in the fields mentioned above. The annual award was instituted by the Government of India in 1995 during the commemoration of 125th Birth anniversary of Mahatma Gandhi.

RAKSHA MANTRI DEDICATES DIFFO BRIDGE IN ARUNACHAL TO THE NATION

Raksha Mantri Smt. Nirmala Sitharaman today inaugurated the 426.60 metre long Pre Stressed Concrete Box Girder type bridge over Diffo river on Roing-Koron-Paya road in Arunachal Pradesh. Dedicating the bridge to the nation, the Raksha Mantri praised the commendable work being done by Project Udayak, Border Roads Organisation (BRO) in this region.

Smt. Sitharaman appreciated completion of this prestigious bridge which would provide uninterrupted access between Dibang valley and Lohit valley region of Eastern Arunachal Pradesh and an all-weather Road to the troops deployed on the China Border. Director General Border Roads Lt Gen Harpal Singh explained the rigours/hurdles

faced by BRO in tough working conditions in an almost inhospitable terrain facing turbulent flash floods and also pointed out that the BRO has sacrificed numerous precious lives in discharging its duties across the length and breadth of country.

15TH EDITION OF PRAVASI BHARTIYA DIVAS

The stage is all set for the beginning of 15th edition of Pravasi Bhartiya Divas at Varanasi tomorrow, 21st January 2019. For the first time in the history of Pravasi Bhartiya Divas, the event is being held in Varanasi, the cultural and spiritual capital of India. Over the next three days from 21st to 23rd January, the city will be a witness to scores of sessions, seminal talks by experts and luminaries in their fields, cultural programmes and visit of the NRIs to renowned places of Kashi, Sarnath and Ganga Ghats among others. The theme for PBD 2019 is "Role of Indian Diaspora in building New India". Several world leaders of Indian origin will share their insights into the role of Indian diaspora for a New India.

SUBHAS CHANDRA BOSE MUSEUM

Remembering the heroes of freedom struggle, the Prime Minister, Shri Narendra Modi paid floral tributes and inaugurated the Subhas Chandra Bose museum at Red Fort, to mark his 122nd birth anniversary.

IAFTX-2019

The final planning conference to work out the modalities for Indian Africa Field Training Exercise (IAFTX)-2019 is being conducted at Pune on 23-24 January 2019. Delegates from Egypt, Ghana, Nigeria, Senegal, Sudan, South Africa, Tanzania, Namibia, Mozambique, Uganda, Niger & Zambia attended the conference.

Indian Africa Field Training Exercise (IAFTX)-2019 is scheduled to be conducted at Aundh Military Station and College of

Military Engineering, Pune from 18 March to 27 March 2019. The joint training exercise is being conducted with more than a dozen African countries & India. It aims at synergising humanitarian mine action and joint peace operations. The initial planning conference for the exercise was held in December 2018.

The IAFTX-2019 is a positive step towards growing political and military ties with the member nations of African continent and will boost the already strong strategic cooperation between the countries.

COMMERCIAL PAPER (CP)

Commercial Paper (CP) is an unsecured money market instrument issued in the form of a promissory note. It was introduced in India in 1990.

It was introduced in India in 1990 with a view to enabling highly rated corporate borrowers to diversify their sources of short-term borrowings and to provide an additional instrument to investors. Subsequently, primary dealers and all-India financial institutions were also permitted to issue CP to enable them to meet their short-term funding requirements for their operations. Corporates, primary dealers (PDs) and the All-India Financial Institutions (FIs) are eligible to issue CP.

A corporate would be eligible to issue CP provided –

- a. the tangible net worth of the company, as per the latest audited balance sheet, is not less than Rs. 4 crore
- b. company has been sanctioned working capital limit by bank/s or all-India financial institution/s; and
- c. the borrowal account of the company is classified as a Standard Asset by the financing bank/s/ institution/s.

RBI'S ROLE WITH REGARD TO CONDUCT OF GOVERNMENT'S BANKING TRANSACTION

In terms of Section 20 of the RBI Act 1934, RBI has the obligation to undertake the receipts and payments of the Central Government and to carry out the exchange, remittance and other banking operations, including the management of the public debt of the Union. Further, as per Section 21 of the said Act, RBI has the right to transact Government business of the Union in India.

State Government transactions are carried out by RBI in terms of the agreement entered into with the State Governments in terms of section 21 A of the Act. As of now, such agreements exist between RBI and all the State Governments except Government of Sikkim. Thus, the legal provisions vest Reserve Bank of India with both the right and obligation to function as banker to the government.

RESERVE BANK OF INDIA BEING 'BANKER TO GOVERNMENT'

RBI carries out the general banking business of the governments through its own offices and commercial banks, both public and private, appointed as its agents. Section 45 of the Reserve Bank of India Act, 1934, provides for appointment of scheduled commercial banks as agents at all places or at any place in India, for purposes that it may specify, "having regard to public interest, convenience of banking, banking development and such other factors which in its opinion are relevant in this regard".

Reserve Bank of India maintains the Principal Accounts of Central as well as State Governments at its Central Accounts Section, Nagpur. It has put in place a well structured arrangement for revenue collection as well as payments on behalf of Government across the country. A network comprising the Government Banking Divisions of RBI and branches of agency

banks appointed under Section 45 of the RBI Act carry out the government transactions. At present all the public sector banks and select private sector banks act as RBI's agents. Only designated branches of agency banks can conduct government banking business.

PRADHAN MANTRI GARIB KALYAN DEPOSIT SCHEME (PMGKDS), 2016

Pradhan Mantri Garib Kalyan Deposit Scheme (PMGKDS), 2016 is a scheme notified by the Government of India on December 16, 2016 which is applicable to every declarant under the Taxation and Investment Regime for Pradhan Mantri Garib Kalyan Yojana, 2016. The deposit under this Scheme shall be made by any person who declares undisclosed income under sub-section (1) of section 199C of the Taxation and Investment Regime for Pradhan Mantri Garib Kalyan Yojana, 2016. The Deposits shall be held at the credit of the declarant in Bond Ledger Accounts (BLA) maintained with Reserve Bank of India.

INFLATION INDEXED BONDS (IIBS)

The CIBs issued in 1997 provided inflation protection only to principal and not to interest payment. New product of IIBs will provide inflation protection to both principal and interest payments. Inflation component on principal will not be paid with interest but the same would be adjusted in the principal by multiplying principal with index ratio (IR). At the time of redemption, adjusted principal or the face, whichever is higher, would be paid. Interest rate will be provided protection against inflation by paying fixed coupon rate on the principal adjusted against inflation.

The consumer price index (CPI) reflects the inflation people at large face and therefore, globally CPI or Retail Price Index (RPI) is used for inflation target by the Central Banks as well as for providing inflation protection in

IIBs. In India, all India CPI is being released since January 2011 and it will take some time in stabilizing. Monetary policy has also been continuing to target WPI for its price stability objective. In view of above, it has been decided to consider WPI for inflation protection in IIBs.

As IIBs are G-Sec, they can be tradable in the secondary market like other G-Secs. Investors will be able to trade them in NDS-OM, NDS-OM (web-based), OTC market, and stock exchanges. IIBs would be a G-Sec and issued as part of the approved Government market borrowing programme. Therefore, IIBs would automatically get SLR status.

RTGS

The acronym 'RTGS' stands for Real Time Gross Settlement, which can be explained as a system where there is continuous and real-time settlement of fund-transfers, individually on a transaction by transaction basis (without netting). 'Real Time' means the processing of instructions at the time they are received; 'Gross Settlement' means that the settlement of funds transfer instructions occurs individually.

Considering that the funds settlement takes place in the books of the Reserve Bank of India, the payments are final and irrevocable.

RTGS offers many advantages over the other modes of funds transfer:

1. It is a safe and secure system for funds transfer.
2. RTGS transactions / transfers have no amount cap.
3. The system is available on all days when most bank branches are functioning, including Saturdays.
4. There is real time transfer of funds to the beneficiary account.
5. The remitter need not use a physical cheque or a demand draft.

6. The beneficiary need not visit a bank branch for depositing the paper instruments.
7. The beneficiary need not be apprehensive about loss / theft of physical instruments or the likelihood of fraudulent encashment thereof.
8. Remitter can initiate the remittances from his / her home / place of work using internet banking, if his / her bank offers such service.
9. The transaction charges have been capped by RBI.
10. The transaction has legal backing.

NEFT is an electronic fund transfer system in which the transactions received up to a particular time are processed in batches. Contrary to this, in RTGS, the transactions are processed continuously on a transaction by transaction basis throughout the RTGS business hours.

ANDAMAN & NICOBAR ISLANDS: HOME TO A TENTH OF INDIA'S FAUNA SPECIES

The islands, comprising only 0.25% of country's geographical area, has 11,009 species, according to a publication by the Zoological Survey of India

The Narcondam hornbill, its habitat restricted to a lone island; the Nicobar megapode, a bird that builds nests on the ground; the Nicobar treeshrew, a small mole-like mammal; the Long-tailed Nicobar macaque, and the Andaman day gecko, are among the 1,067 endemic faunal species found only on the Andaman and Nicobar Islands and nowhere else.

A recent publication by the Zoological Survey of India (ZSI) titled *Faunal Diversity of Biogeographic Zones: Islands of India* has for the first time come up with a database of all faunal species found on the island, putting the number at 11,009. The documentation proves that the islands, comprising only 0.25% of India's geographical area, are

home to more than 10% of the country's fauna species.

The total area of the A&N Islands, which comprises of 572 islands, islets and rocky outcrops, is about 8,249 sq. km. The population of the islands, which includes six particularly vulnerable tribal groups (PVTGs) — Great Andamanese, Onge, Jarawa, Sentinelese, Nicobarese and Shompens — is not more than 4 lakh. The number of tourists visiting the islands has crossed the number of people residing in them, with latest data showing 4.87 lakh tourists visiting the islands annually.

In a recent development, the Government of India relaxed the Restricted Area Permit (RAP) norms for some foreign nationalities notified under the Foreigners (Restricted Areas) Order, 1963, to visit 29 of its inhabited islands, till December 31, 2022. This has triggered further concerns of increased anthropogenic pressures over the islands' ecosystem.

Among the 46 terrestrial mammalian species found, three species have been categorised as Critically Endangered — Andaman shrew (*Crocidura andamanensis*), Jenkin's shrew (*C. jenkinsi*) and Nicobar shrew (*C. nicobarica*). Five species are listed as Endangered, nine species as Vulnerable, and one species as Near Threatened, according to the IUCN.

Among birds, endemism is quite high, with 36 among 344 species of birds found only on the islands. Many of these bird species are placed in the IUCN Red List of threatened species under the Wildlife Protection Act (WPA).

Another unique feature of the islands' ecosystem is its marine faunal diversity, which includes coral reefs and its associated fauna. In all, 555 species of scleractinian corals (hard or stony corals) are found in the island ecosystem, all which are placed under Schedule I of the WPA. Similarly, all species

of gorgonian (sea fans) and calcereous sponge are listed under different schedules of the WPA.

HANTAVIRUS

First identified in 1993, hantaviruses cause severe and sometimes fatal respiratory infections and are known to infect lung cells. Though relatively rare, infections caused by them are expected to increase in the coming decades as temperatures across the globe rise due to climate change. The danger is that we are totally unprepared for this possibility. Hantavirus is transmitted to humans who inhale the virus from the urine, faeces, or saliva of infected rodents. Infection with hantavirus can progress to Hantavirus Pulmonary Syndrome (HPS). Early HPS symptoms include fatigue, fever and muscle aches, followed after a week or so by coughing and shortness of breath. HPS has a mortality rate of around 40%, according to the U.S. Centers for Disease Control and Prevention. No treatments or vaccines are available. A study on hantaviruses has been published in *Nature*, and its findings could point to a strategy to fight HPS.

SFIO (SERIOUS FRAUD INVESTIGATION OFFICE)

The Government of India had set up a Committee on Corporate Governance under the CHAIRMANSHIP of Shri Naresh Chandra, former Cabinet Secretary. The Naresh Chandra Committee inter-alia recommended setting up of Corporate Serious Fraud Office. The recommendations of Naresh Chandra Committee were as under:-

i) A Corporate Serious Fraud Office should be set up in the Department of Company Affairs with specialists inducted on the basis of transfer/deputation and on special term contracts.

ii) This should be in the form of a multi-disciplinary team that not only uncovers the fraud, but able to direct and supervise prosecutions under various economic legislations through appropriate agencies.

iii) There should be a Task Force constituted for each case under a designated team leader

iv) In the interest of adequate control and efficiency, a Committee each, headed by the Cabinet Secretary should directly oversee the appointments to, and functioning of this office, and coordinate the work of concerned departments and agencies.

v) Later, a legislative framework, along with the lines of the SFO in the UK, should be set up to enable the CSFO to investigate all aspects of the fraud, and direct the prosecution in appropriate Courts.

2. Consequent to the recommendation of Naresh Chandra Committee and in the backdrop of stock market scams as also the failure of non-banking companies resulting in huge financial loss to the public, the Cabinet in its meeting held on 9th January, 2003, decided to set up a Serious Fraud Investigation Office (SFIO).

3. As per the decisions of the Cabinet, the Central Government issued a resolution on 2nd July, 2003 constituting this organisation. In continuation of the aforesaid Resolution, charter of Serious Fraud Investigation Office was issued by the Government on 21st of August, 2003 which inter alia stated that the responsibilities and functions of the SFIO will include, but not be limited to the following:-

a) The SFIO is expected to be a multi-disciplinary organisation consisting of experts in the field of accountancy, forensic

auditing, law, information technology, investigation, company law, capital market and taxation for detecting and prosecuting or recommending for prosecution white collar crimes/frauds.

b) The SFIO will normally take up for investigation only such cases, which are characterized by –

i) complexity and having inter-departmental and multi-disciplinary ramifications;

ii) substantial involvement of public interest to be judged by size, either in terms of monetary

iii) the possibility of investigation leading to or contributing towards a clear improvement in systems, laws or procedures.

4. With a view to review the functioning of the SFIO and to make it more effective, the Central Government constituted an Expert Committee under the Chairmanship of **Shri VepaKamesam** formerly Deputy Governor, Reserve Bank of India. The committee deliberated upon various issues relating to investigation of corporate fraud, based on the experience of SFIO and the recent developments in India and global arena. In its report dated 29th April, 2009, the committee gave various recommendations to suggest statutory, administrative and organizational changes for improving the effectiveness and to ensure efficient discharge of duties by SFIO.

5. As per the Companies Act, 2013, Serious Fraud Investigation Office (SFIO) has been established through the Government of India vide Notification NO. S.O.2005(E) dated 21.07.2015. It is a multi-disciplinary organisation under the Ministry of Corporate Affairs, consisting of experts in the field of accountancy, forensic auditing, banking, law, information technology, investigation, company law, capital market and taxation etc. for detecting and prosecuting or recommending for prosecution white collar crimes/frauds.

GST COLLECTIONS CROSS ₹1 LAKH CRORE IN JANUARY

The government on Thursday said that Goods and Services Tax (GST) collections crossed the ₹1 lakh-crore mark in January, the third month this financial year it would have done so. The final figure, however, will be released on February 2, it added.

“The total gross GST revenue collected in the month of January 2019 has today crossed ₹1 lakh crore,” the Ministry of Finance tweeted on Thursday. “This has been a significant improvement over collection of ₹94,725 crore during last month and ₹89,825 crore during the same month last year.”

RBI LIFTS CURBS ON THREE PSBS

The Reserve Bank of India (RBI) has decided to allow three public sector banks — Bank of India, Bank of Maharashtra and Oriental Bank of Commerce — to exit the PCA framework following capital infusion by the government and a decline in net non-performing asset ratio.

The RBI, which conducted a review following a demand made by government to lift the restrictions in order to boost credit growth, said, “it was noted that a few banks are not in breach of the PCA (Prompt Corrective Action) parameters as per their published results for the quarter ending December 2018, except for return on assets (RoA).”

The PCA framework is triggered when a bank breaches one of the three risk thresholds, and crossing 6% net NPAs is one of them.

70% OF DIVISIONS RECEIVE LESSER RAINFALL THAN AVERAGE IN 2018

Of the 36 meteorological divisions in India, 25 (70%) received less rain during the South West monsoon in 2018 than the average precipitation in the last 118 years.

There is wide variation in the average rainfall across geographical divisions. The graphic below compares South West Monsoon rainfall data for all divisions historically to find where their measures for 2016, 2017 and 2018 are placed.

The rainfall for each division is plotted in a row. Each circle represents the rainfall in a year. The years 1901 to 2015 are in grey; 2016 & 2017 are in blue; and 2018 in red. The dash (|) denotes the average rainfall of each division.

1. Rayalaseema had its fourth worst monsoon in 2018 (252 mm rain), since 1901, and 95% of mandals in the region were declared drought-hit

2. In June & July 2018, it rained above par in Marathwada. But, it had the lowest rainfall for any September (31 mm) since 1901, leading to crop failure; 64 tehsils were declared drought-hit in October 2018

3. Saurashtra & Kutch (316 mm) and the rest of Gujarat (696 mm) divisions had 32% and 21% lower rainfall respectively in 2018 than the average. Close to 3,300 villages were declared drought-hit in Dec. 2018

4. Jharkhand (789 mm) and Bihar (771 mm) had their fifth and tenth lowest monsoon rains respectively since 1901. More than 40% blocks in both States were declared drought-hit

5. Karnataka's northern division had its 13th worst monsoon since 1901. 88.6% area of the State was declared drought-hit, as the other two divisions, coastal and south, had marginally better monsoons than the average

6. The Northeast region had a poor monsoon season. Arunachal Pradesh received 1,191 mm during the 2018 monsoon, its seventh worst season since 1901. *Divisions

Northeast 1 (Assam and Meghalaya) and Northeast 2 (Nagaland, Tripura, Manipur and Mizoram) received the 6th and 7th worst monsoons since 1901 respectively.

ISRO LAUNCHES HUMAN SPACE FLIGHT CENTRE IN BENGALURU

Announced on August 15 2018, the country's first crewed mission is set to happen by 2022, the 75th year of Independence.

A full scale model of Gaganyaan's crew module was also unveiled as former ISRO chairman K. Kasturirangan inaugurated the new centre in the presence of ISRO Chairman K. Sivan, former chairmen and centre directors.

Earlier this month, Dr. Sivan named S. Unnikrishnan Nair as the founder Director of HSFC and R. Hutton as the project director of Gaganyaan.

A statement said, "HSFC shall be responsible for the implementation of Gaganyaan project — which involves mission planning, development of engineering systems for crew survival in space, crew selection and training and also pursue activities for sustained human space flight missions. HSFC will take the support of ISRO centres to implement the first developmental [crewed] flight."

SANSKRITISATION

Sanskritisation is a particular form of social change found in India. It denotes the process by which caste or tribes placed lower in the caste hierarchy seek upward mobility by emulating the rituals and practices of the upper or dominant castes. It is a process similar to passing in sociological terms. This term was made popular by Indian sociologist M. N. Srinivas in the 1950s. According to Christophe Jaffrelot a similar heuristic is described in *Castes in India: Their Mechanism, Genesis and Development* by B. R. Ambedkar. Jaffrelot goes on to say, "While the term was coined by Srinivas, the

process itself had been described by colonial administrators such as E. T. Atkinson in his *Himalayan Gazetteer* and Alfred Lyall, in whose works Ambedkar might well have encountered it."

M.N. Srinivas defined sanskritisation as a process by which "a *low* or *middle* Hindu caste, or tribal or other group, changes its customs, ritual ideology, and way of life in the direction of a high and frequently *twice-born* caste. Generally such changes are followed by a claim to a higher position in the caste hierarchy than that traditionally conceded to the claimant class by the local community"One clear example of sanskritisation is the adoption, in emulation of the practice of twice-born castes, of vegetarianism by people belonging to the so-called "low castes" who are traditionally not averse to non-vegetarian food. According to M.N. Srinivas, Sanskritisation is not just the adoption of new customs and habits, but also includes exposure to new ideas and values appearing in Sanskrit literature. He says the words *Karma*, *dharma*, *paap*, *maya*, *samsara* and *moksha* are the most common Sanskritic theological ideas which become common in the talk of people who are sanskritised.

NASA SOLAR PROBE BEGINS SECOND ORBIT OF SUN

NASA's Parker Solar Probe has begun its second orbit of the Sun and is on track for its closest approach to our star, the U.S. space agency said. Just 161 days after its launch, the Parker probe completed its first orbit of the Sun on January 19.

The spacecraft has now begun the second of 24 planned orbits, on track for its second perihelion, or closest approach to the Sun, on April 4. Parker Solar Probe entered full operational status on January 1, with all systems online and operating as designed. The spacecraft has been delivering data from its instruments to Earth via the Deep Space Network, and to date more than 17 gigabits of science data has been

downloaded. The full dataset from the first orbit will be downloaded by April.

ATP RANKINGS: DJOKOVIC TIGHTENS GRIP ON TOP OF RANKINGS

Novak Djokovic strengthened his grip at the top of the men's ATP tennis ranking Monday following his destruction of Rafael Nadal in the Australian Open final. An outclassed Nadal, beaten in straight sets in just over two hours, held on to second spot in the rankings while Roger Federer slipped from third to six place.

AUSTRALIAN OPEN WINNER NAOMI OSAKA LEAPS TO NO.1

Naomi Osaka, winner of the Australian Open, has jumped to the top of women's tennis with her beaten opponent Petra Kvitova rising to second in Monday's WTA rankings. Osaka climbed three places after beating the Czech in Melbourne on Saturday. Kvitova moved up four places.

GOPAL DAS NEERAJ

Hindi poet and songwriter Gopal Das Neeraj died at the AIIMS trauma centre in Delhi, India. The poet was 93-years-old. According to reports, Gopal Das had a head injury at his home in Agra and was taken to Aligarh for treatment. The chief of AIIMS trauma centre of New Delhi, Dr Rajesh Malhotra, said, "He was shifted to the trauma centre here [the night before he died] in a critical condition. He had suffered from kidney failure, had infection all over his body and head injury".

Born in the Etawah district of Uttar Pradesh on January 4, 1925, Gopal Das was a resident of Agra and taught Hindi literature at the Dharma Samaj College in Aligarh. Gopal Das had received some of the highest Indian civilian honorary awards, receiving Padma Shri in 1991 and Padma Bhushan in 2007.

ECOLOGICAL NICHE

The ecological niche describes how an organism or population responds to the distribution of resources and competitors (for example, by growing when resources are abundant, and when predators, parasites and pathogens are scarce) and how it in turn alters those same factors (for example, limiting access to resources by other organisms, acting as a food source for predators and a consumer of prey). "The type and number of variables comprising the dimensions of an environmental niche vary from one species to another [and] the relative importance of particular environmental variables for a species may vary according to the geographic and biotic contexts".

The different dimensions, or plot axes, of a niche represent different biotic and abiotic variables. These factors may include descriptions of the organism's life history, habitat, trophic position (place in the food chain), and geographic range. According to the competitive exclusion principle, no two species can occupy the same niche in the same environment for a long time. The parameters of a realized niche are described by the realized niche width of that species. Some plants and animals, called specialists, need specific habitats and surroundings to survive, such as the spotted owl, which lives specifically in old growth forests. Other plants and animals, called generalists, are not as particular and can survive in a range of conditions, for example the dandelion.

THERMOCLINE

A thermocline (also known as the thermal layer or the metalimnion in lakes) is a thin but distinct layer in a large body of fluid (e.g. water, as in an ocean or lake; or air, e.g. an atmosphere) in which temperature changes more rapidly with depth than it does in the layers above or below. In the ocean, the

thermocline divides the upper mixed layer from the calm deep water below.

Depending largely on season, latitude, and turbulent mixing by wind, thermoclines may be a semi-permanent feature of the body of water in which they occur, or they may form temporarily in response to phenomena such as the radiative heating/cooling of surface water during the day/night. Factors that affect the depth and thickness of a thermocline include seasonal weather variations, latitude, and local environmental conditions, such as tides and currents.

Most of the heat energy of sunlight is absorbed in the first few centimeters at the ocean's surface, which heats during the day and cools at night as heat energy is lost to space by radiation. Waves mix the water near the surface layer and distribute heat to deeper water such that the temperature may be relatively uniform in the upper 100 m (300 ft), depending on wave strength and the existence of surface turbulence caused by currents. Below this mixed layer, the temperature remains relatively stable over day/night cycles. The temperature of the deep ocean drops gradually with depth. As saline water does not freeze until it reaches $-2.3\text{ }^{\circ}\text{C}$ (colder as depth and pressure increase) the temperature well below the surface is usually not far from zero degrees.

The thermocline varies in depth. It is semi-permanent in the tropics, variable in temperate regions (often deepest during the summer) and shallow to nonexistent in the polar regions, where the water column is cold from the surface to the bottom. A layer of sea ice will act as an insulation blanket.

ECOTONE

An ecotone is a transition area between two biomes. It is where two communities meet and integrate. It may be narrow or wide, and it may be local (the zone between a field and forest) or regional (the transition between forest and grassland ecosystems). An

ecotone may appear on the ground as a gradual blending of the two communities across a broad area, or it may manifest itself as a sharp boundary line.

There are several distinguishing features of an ecotone. First, an ecotone can have a sharp vegetation transition, with a distinct line between two communities. For example, a change in colors of grasses or plant life can indicate an ecotone. Second, a change in physiognomy (physical appearance of a plant species) can be a key indicator. Water bodies, such as estuaries, can also have a region of transition, and the boundary is characterized by the differences in heights of the macrophytes or plant species present in the areas because this distinguishes the two areas' accessibility to light. Scientists look at color variations and changes in plant height. Third, a change of species can signal an ecotone. There will be specific organisms on one side of an ecotone or the other.

ALPHA, BETA AND GAMMA DIVERSITY

Alpha diversity is the number of species found in a particular area or ecosystem. For example: *Habitat X* has 5 species of ants - Therefore, the alpha diversity for ants in this place is 5

Beta diversity is the variation of the species composition between two habitats or regions. It takes into account the alpha diversity of the habitats and the number of unique species on each habitat. For example:

- Habitat 1 has 4 species: a, b, c, and d (alpha diversity = 4)
- Habitat 2 has 3 species: c, d, and e (alpha diversity = 3)

To calculate the beta diversity, you subtract the number of overlapping species of each habitat's alpha diversity and sum the results:

(4 species on habitat 1 - 2 overlapping species) + (3 species on habitat 2 - 2

overlapping species) = $(4-2)+(3-2) = 2+1 = 3$

The beta diversity between habitats 1 and 2 is 3

Gamma diversity is a measure of the overall number of species (the diversity) within a region. It is basically the sum of all the species of all habitats within the region of interest. The gamma diversity of the region with habitats 1 and 2 from the last question would be 5, since that there were 5 species on habitats 1 and 2: a, b, c, d, and e.

SALIENT FEATURES OF THE COMPANIES ACT 2013

1. **Class action suits for Shareholders:** The Companies Act 2013 has introduced new concept of class action suits with a view of making shareholders and other stakeholders, more informed and knowledgeable about their rights.
2. **More power for Shareholders:** The Companies Act 2013 provides for approvals from shareholders on various significant transactions.
3. **Women empowerment in the corporate sector:** The Companies Act 2013 stipulates appointment of at least one woman Director on the Board (for certain class of companies).
4. **Corporate Social Responsibility:** The Companies Act 2013 stipulates certain class of Companies to spend a certain amount of money every year on activities/initiatives reflecting Corporate Social Responsibility.
5. **National Company Law Tribunal:** The Companies Act 2013 introduced National Company Law Tribunal and the National Company Law Appellate Tribunal to replace the Company Law Board and Board for Industrial and Financial Reconstruction. They would relieve the Courts of their burden while simultaneously providing specialized justice.

6. **Fast Track Mergers:** The Companies Act 2013 proposes a fast track and simplified procedure for mergers and amalgamations of certain class of companies such as holding and subsidiary, and small companies after obtaining approval of the Indian government.
7. **Cross Border Mergers:** The Companies Act 2013 *permits* cross border mergers, both ways; a foreign company merging with an India Company and vice versa but with prior permission of *RBI*.
8. **Prohibition on forward dealings and insider trading:** The Companies Act 2013 prohibits directors and key managerial personnel from purchasing call and put options of shares of the company, if such person is reasonably expected to have access to price-sensitive information.
9. **Increase in number of Shareholders:** The Companies Act 2013 increased the number of maximum shareholders in a private company from 50 to 200.
10. **Limit on Maximum Partners:** The maximum number of persons/partners in any association/partnership may be upto such number as may be prescribed but not exceeding *one hundred*. This restriction will not apply to an association or partnership, constituted by professionals like lawyer, chartered accountants, company secretaries, etc. who are governed by their special laws. Under the Companies Act 1956, there was a limit of maximum 20 persons/partners and there was no exemption granted to the professionals.
11. **One Person Company:** The Companies Act 2013 provides new form of private company, i.e., one person company. It may have only one director and one shareholder. The Companies Act 1956 requires minimum two shareholders and two directors in case of a private company.
12. **Entrenchment in Articles of Association:** The Companies Act 2013 provides for entrenchment (apply extra legal safeguards) of articles of association have been introduced.
13. **Electronic Mode:** The Companies Act 2013 proposed E-Governance for various company processes like maintenance and inspection of documents in electronic form, option of keeping of books of accounts in electronic form, financial statements to be placed on company's website, etc.
14. **Indian Resident as Director:** Every company shall have at least one director who has stayed in India for a total period of not less than 182 days in the previous calendar year.
15. **Independent Directors:** The Companies Act 2013 provides that all listed companies should have at least one-third of the Board as independent directors. Such other class or classes of public companies as may be prescribed by the Central Government shall also be required to appoint independent directors. No independent director shall hold office for more than two consecutive terms of five years.
16. **Serving Notice of Board Meeting:** The Companies Act 2013 requires at least seven days' notice to call a board meeting. The notice may be sent by electronic means to every director at his address registered with the company.
17. **Duties of Director defined:** Under the Companies Act 1956, a director had fiduciary (legal or ethical relationship of trust) duties towards a company. However, the Companies Act 2013 has defined the duties of a director.
18. **Liability on Directors and Officers:** The Companies Act 2013 does not restrict an Indian company from

indemnifying (compensate for harm or loss) its directors and officers like the Companies Act 1956.

19. **Rotation of Auditors:** The Companies Act 2013 provides for rotation of auditors and audit firms in case of publicly traded companies.
20. **Prohibits Auditors from performing Non-Audit Services:** The Companies Act 2013 prohibits Auditors from performing non-audit services to the company where they are auditor to ensure independence and accountability of auditor.
21. **Rehabilitation and Liquidation Process:** The entire rehabilitation and liquidation process of the companies in financial crisis has been made time bound under Companies Act 2013.

DEMOGRAPHY

Demography encompasses the study of the size, structure, and distribution of these populations, and spatial or temporal changes in them in response to birth, migration, aging, and death. Based on the demographic research of the earth, earth's population up to the year 2050 and 2100 can be estimated by demographers. Demographics are quantifiable characteristics of a given population.

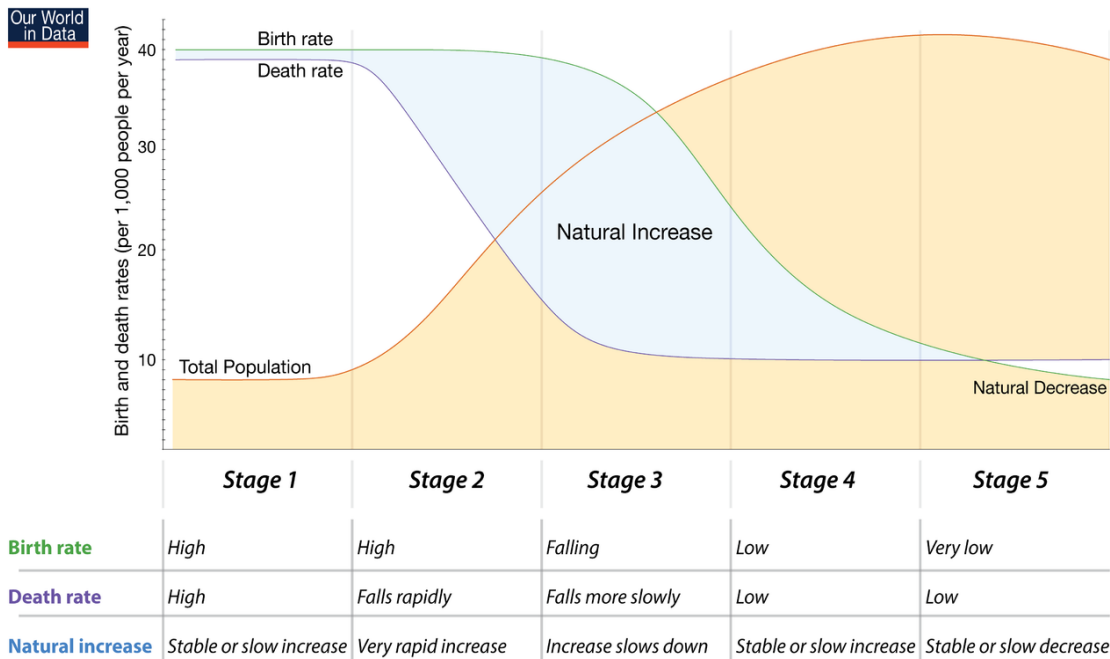
1. The crude birth rate, the annual number of live births per 1,000 people.
2. The general fertility rate, the annual number of live births per 1,000 women of childbearing age (often taken to be from 15 to 49 years old, but sometimes from 15 to 44).
3. The age-specific fertility rates, the annual number of live births per 1,000 women in particular age groups (usually age 15-19, 20-24 etc.)
4. The crude death rate, the annual number of deaths per 1,000 people.

5. The infant mortality rate, the annual number of deaths of children less than 1 year old per 1,000 live births.
6. The expectation of life (or life expectancy), the number of years that an individual at a given age could expect to live at present mortality levels.
7. The total fertility rate, the number of live births per woman completing her reproductive life, if her childbearing at each age reflected current age-specific fertility rates.
8. The replacement level fertility, the average number of children women must have in order to replace the population for the next generation. For example, the replacement level fertility in the US is 2.11.
9. The gross reproduction rate, the number of daughters who would be born to a woman completing her reproductive life at current age-specific fertility rates.
10. The net reproduction ratio is the expected number of daughters, per newborn prospective mother, who may or may not survive to and through the ages of childbearing.
11. A stable population, one that has had constant crude birth and death rates for such a long period of time that the percentage of people in every age class remains constant, or equivalently, the population pyramid has an unchanging structure.
12. A stationary population, one that is both stable and unchanging in size (the difference between crude birth rate and crude death rate is zero).

A stable population does not necessarily remain fixed in size. It can be expanding or shrinking.

DEMOGRAPHIC TRANSITION (DT)

Demographic transition (DT) is the transition from high birth and death rates to lower birth and death rates as a country or region



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develops from a pre-industrial to an industrialized economic system. The theory was proposed in 1929 by the American demographer Warren Thompson, who observed changes, or transitions, in birth and death rates in industrialized societies over the previous 200 years. Most developed countries have completed the demographic transition and have low birth rates; most developing countries are in the process of this transition.