

My Notes....

NATIONAL

INDIA INNOVATION INDEX

The World Economic Forum, NITI Aayog, the World Intellectual Property Organization and the Cornell University will work together to develop an India Innovation Index that will provide impetus to Indian states to drive the innovative spirit. Prime Minister Modi believes that **competitive and cooperative federalism is key to India's progress**. This index will encourage states to compete with each other and, in turn, lead to better policies for inclusive growth. Each partnering organisation will nominate a working group member to work on the index.

What

1. The first ranking is expected to be released at the India Economic Summit in New Delhi between 4-6 Octobers.
2. On this index and believe that it can move India to an innovation-driven economy and to **identify and measure the grassroots issues that affect innovation capabilities,”** said Viraj Mehta, Head of India and South Asia, World Economic Forum.
3. The index will be based on key pillars of innovation and sub-indices that together will assist in tailoring policies that promote inclusive growth.
4. The pillars include the strength of institutions, capacity of human capital and research, supporting infrastructure and the level of business sophistication, among others.
5. The index will measure and rank the innovation performance of all Indian states with the aim of moving India towards an innovation-driven economy.
6. The index will spur competition and ensure progress towards innovation at the local level in India.

INDIA BECOMES ASSOCIATE MEMBER OF CERN

India became an Associate member of CERN on 16 January 2017 with the Indian government completing its internal approval procedures in respect of the agreement it had signed with CERN on November 21, 2016.

What

1. As an Associate member India will have full access to all data generated at CERN. As there are many experiments in CERN, there will be plenty of information available.
2. As an Associate member, India can participate in all experiments.
3. There are other benefits of becoming an Associate member. Whenever any CERN facilities get upgraded and go through maintenance, it will provide opportunities for Indian industries to participate. Indian industry will be entitled to bid for CERN contracts, which will allow it to work in areas of advanced technology. **So the “Make in India” will get a boost due to CERN.** India will definitely be more competitive than others.

Flashback

1. In 1991, India and CERN signed a Cooperation Agreement, setting priorities for scientific and technical cooperation.
2. India and CERN have signed several other protocols since then. But **India's** involvement in CERN began in the 1960s with researchers from the Tata Institute of Fundamental Research, Mumbai participating in experiments at CERN.
3. In the 1990s scientists from Raja Ramanna Centre for Advanced Technology, Indore too got involved in CERN experiment.
4. Researchers from TIFR, Raja Ramanna Centre for Advanced Technology and other institutes built components for an accelerator (LEP) and detectors (L3, WA93 and WA89). India was granted Observer status to the CERN Council in 2002.
5. The CERN convention was signed in 1953 by the 12 founding state.
6. Currently, CERN has 22 member states. Besides India, Turkey, Pakistan, Ukraine are Associate members and Serbia and Cyprus are associate members in the pre-stage to membership.

4. Since Indian scientists will become eligible for staff appointments, it will enhance the participation of young scientists and engineers in operation and maintenance of various **CERN projects**. **“Indian scientists and engineers working in CERN will learn how to operate and maintain the facilities.**
5. India has to pay about Rs. 40 crore a year as an Associate member. According to him, it is a small fee compared to the huge scientific and commercial benefits that India will stand to gain.
6. **India has been actively involved in CERN’s scientific activities for over 50 years.** Indian physicists, engineers and technicians have made substantial contributions to the construction of the LHC accelerator and to the ALICE and CMS experiments, as well as to accelerator R&D projects.

INDIA’S INPUTS IN IPCC REPORT

The next report of the IPCC (Intergovernmental Panel on Climate Change) due in 2018 will carry India’s inputs on climate change assessment generated by an indigenous modelling system, M.Rajeevan, Secretary, Ministry of Earth Sciences has said.

What

1. **India’s inputs were not given in the last five IPCC reports** because so far we were relying on climate change models developed by other countries. Now we have our own model.
2. The IPCC reports highlight the causes and impact of global warming and climate change on regions across the world.
3. The statistical and high performance computing systems employed by India had consistently improved weather prediction and climate projection capabilities.
4. **The country’s** climate change modelling was set to improve further with the acquisition of a 10 Peta Flop super computer by the Indian Institute of Tropical Meteorology (IITM), Pune, in June this year.
5. **“IITM is upgrading from the 1.2 Peta Flop machines which no longer matches our requirements.** The tender for the new computer will be floated next week. It will be the most **powerful supercomputer in the country.”**
6. IPCC models suggested an increase in extreme temperatures, decrease in the number of rainy days, and increase in the intensity of rainfall during the monsoon. This, he said, would have serious implications for agriculture, requiring a shift to short duration varieties and steps to harvest and store rainwater.

ISRO REALIGNS ORBIT OF 'MANGALYAAN'

Indian Space Research Organisation has successfully realigned the orbit of its Mars Orbiter Mission 'Mangalyaan' so it is not affected by long-duration eclipse. The duration of the eclipse was so long that had we done nothing, the Mangalyaan's battery capacity would have got exhausted due to lack of sun rays. No effect of the eclipse was felt on Mangalyaan.

What

1. On the evening of January 17, we manoeuvred to change the orbit of Mangalyaan and reduced the duration of eclipse," Kumar told.
2. The spacecraft still has 30 kg fuel left, and with realignment we expect it to work for a very long time to come.
3. The correction in the trajectory of Mangalyaan was required to keep the power supply strong during the eclipse - caused by shadow of Mars falling on it for 7-8 hours - so that it could continue to function longer, as Mangalyaan's battery cannot support long-duration eclipse.
4. Isro's ambitious South Asia satellite project has begun. The satellite is expected to be launched by March this year.
5. The satellite will be carried on GSLV Mark II. The satellite will have provisions for telecommunication and disaster monitoring, among others.

JALLIKATTU BILL PASSED

Amid continuing protests over jallikattu across the State, Tamil Nadu Assembly unanimously passed an amendment bill for conducting the bull-taming sport without any hindrance. Replacing an ordinance promulgated two days ago to allow jallikattu, the Bill to amend the Prevention of Cruelty to Animals Act, 1960 was unanimously adopted by the House after members of all parties spoke welcoming the legislative initiative.

What

1. **The “Prevention of Cruelty to Animals (Tamil Nadu Amendment), Act, 2017” was piloted** by Chief Minister O. Panneerselvam and adopted by voice vote.
2. It was deemed to have come into effect on the day the ordinance was issued, January 21, 2017.
3. The government had promulgated the ordinance in a bid to defuse the raging protests across the State, especially at the Marina Beach, by students and others, demanding lifting of the ban on jallikattu.
4. The Bill defines jallikattu as an event involving bulls conducted with a view to following tradition and culture from January to May and it includes similar events like **‘manjuviratu’, ‘vadamadu’ and ‘erudhuvidum’ festivals.**
5. It noted that the Supreme Court had held jallikattu as violative of the PCA Act (sections 3, 11, and 22).
6. The Bill further said, considering the vital role of jallikattu in preserving and promoting tradition and culture among people and also in view of ensuring the survival and **continuance of native breeds of bulls, the “Government of Tamil Nadu has decided to exempt jallikattu from the provisions of the PCA Act“.**

NEW SCHEME FOR RURAL HOUSING APPROVED

The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has approved a new scheme for promotion of Rural Housing in the country. The Government would provide interest subsidy under the scheme. Interest subsidy would be available to every rural household who is not covered under the Pradhan Mantri Aawas Yojana (Grameen), PMAY (G).

What

1. The scheme would enable people in rural areas to construct new houses or add to their existing pucca houses to improve their dwelling units.
2. The beneficiary who takes a loan under the scheme would be provided interest subsidy for loan amount upto Rs. 2 Lakhs.
3. National Housing Bank would implement the scheme. The Government would provide net present value of the interest subsidy of 3 percent to the National Housing Bank upfront which will, in turn, pass it to the Primary Lending Institutions (Scheduled Commercial Banks, NBFCs etc.). As a result the equated monthly installment (EMI) for the beneficiary would be reduced.
4. Under the scheme, the Government would also take necessary steps for proper convergence with PMAY-G including technical support to beneficiary through existing arrangements.
5. The new scheme is expected to improve housing stock in the rural areas, as well as create employment opportunities in rural housing sector.

VARISHTHA PENSION BIMA YOJANA LAUNCHED

The Union Cabinet gave its post-facto approval for the launch of the Varishtha Pension Bima Yojana 2017. The scheme will be implemented through Life Insurance Corporation of India (LIC) during the current financial year to provide social security during old age and protect elderly persons aged 60 years and above against a future fall in their interest income due to uncertain market conditions.

What

1. The scheme is meant to provide an assured pension based on a guaranteed rate of return of 8% per annum for ten years, with an option to opt for pension on a monthly/quarterly/half-yearly or annual basis.
2. The difference between the return generated by LIC and the assured return of 8% per annum would be borne by Government of India as subsidy on an annual basis.
3. VPBY-2017 is proposed to be open for subscription for a period of one year from the date of launch.

SECOND COMMITMENT PERIOD KYOTO PROTOCOL APPROVED

The Union cabinet approved ratification of the second commitment period of the Kyoto Protocol on containing the emission of green house gases (GHGs). The second commitment period of the Kyoto Protocol was adopted in 2012. So far, 75 countries have ratified the

second commitment period.

What

1. The ratification of the Kyoto Protocol by India will encourage other developing countries also to undertake this exercise.
2. Implementation of clean development mechanism (CDM) projects under this commitment period in accordance with Sustainable development priorities will attract some investments in India as well.
3. The United Nations Framework Convention on Climate Change (UNFCCC) seeks to stabilise greenhouse gas concentrations in the atmosphere at a level that would minimize interference with the climate system.
4. Developing countries like India has long advocated that developed countries are principally responsible for the current high levels of greenhouse gases across the globe.
5. The Kyoto Protocol places commitments on developed nations to undertake mitigation targets and to provide financial resources and transfer of technology to the developing nations. Developing countries like India have no mandatory mitigation obligations or targets under the Kyoto Protocol.
6. Kyoto Protocol was adopted in 1997 and the 1st commitment period was from 2008-2012. At Doha in 2012, the amendments to Kyoto Protocol for the 2nd commitment period (the Doha Amendment) were successfully adopted for the period 2013- 2020.
7. India has always emphasized the importance of climate actions by developed country parties in the pre-2020 period.

C-ATFM LAUNCHED

The Airports Authority of India (AAI) on R-Day launched its "central - air traffic flow management (C-ATFM)" to cut flight delays. Airlines say Mumbai has become a "black spot" for flight delays due to air traffic congestion, followed by other busy airports like Delhi. AAI chairman Guruprasad Mohapatra, who opened the dedicated C-ATFM facility at Delhi's new air traffic services complex on 26 January 2017, said the authority is implementing this system at all major airports and then the entire Indian airspace.

What

1. The C-ATFM system is primarily meant to address the balancing of capacity against the demand to achieve optimum utilization of the major resources like airports, airspace and aircraft at every Indian airport where there is a capacity constraint.
2. ATFM Service relies on a number of supporting systems, processes and operational data which are already in place, for efficient management of air traffic flow across the country.
3. ATFM will lead to annual fuel savings of Rs 1,680 crore by reducing fuel burn while hovering or waiting to land.
4. India is on the threshold of becoming seventh country in the world to implement the air traffic flow control measures across the nation which will accrue benefits in terms of reduced carbon foot print, embarking on green environment concept, fuel savings and economic benefits to the air travellers.
5. The system displays weather information along with static information about airports, air spaces and air routes.
6. It processes the demand/capacity information, provides decision making tools to the ATFM flow managers for collaborative decision making, in consultation with airlines, military and airports operators to facilitate the regulated flow of traffic in each airport in India.

68TH REPUBLIC DAY

The 68th Republic day celebrates our 68th Republic Day on 26 January 2017.

What

1. 2017 Republic Day Theme is Skill India and Beti Bachao Beti Padhao.
2. Chief Guest - Crown Prince of Abu Dhabi Sheikh Mohamed bin Zayed Al Nahyan, who is the first guest from any middle-east country.
3. No. of states participating in the parade - 17
4. First Time in History - Debut show of Sherpa (a bullet-proof NSG vehicle).

5. This is the second time that a foreign military contingent marched down the Rajpath, with the French contingent being the first.
6. India became a Republic at 10:18 a.m. on January 26 in the year 1950.
7. Around six minutes later, Dr. Rajendra Prasad was sworn in as President of India at the Durbar Hall in President House.
8. The Constitution was neither typed nor printed but handwritten and calligraphed both in English and Hindi.
9. After inception of the Indian Constitution, around 101 amendments (alterations) have been done.
10. The members signed the handwritten document on January 24, 1950.
11. The original copies are kept safely in the Parliament's library in helium-filled cases.
12. The Indian Constitution is the longest in the world, comprising of 448 articles, 12 schedules and 101 amendments.
13. Satyamev Jayate (one of the biggest Indian mottos) is taken from the Mundaka Upanishad, Atharvaveda. It was first translated in the Hindi language by Muslim Abid Ali in 1911.
14. It was Madan Mohan Malviya who selected the Indian motto of Satyamev Jayate.
15. From 1950 and 1954, the venues of the Republic Day parade were the Red Fort, National Stadium, Kingsway Camp and the Ramlila ground. It was only in 1955 that Rajpath was chosen as the regular venue.
16. The first Republic Day parade was held in 1955 at Rajpath, five years after India became a Republic.
17. President Sukarno of Indonesia was the first chief guest at the first Republic Day celebrations held on January 26, 1950.
18. A Christian hymn 'Abide With Me' is played at the parade as it was one of Mahatma Gandhi's favourite songs.
19. Jana Gana Mana (National Anthem) was written first in Bengali language by the Rabindranath Tagore.
20. Jana Gana Mana (National Anthem) was first translated into Hindi language by the Abid Ali in 1911 which was later officially adopted as National Anthem of India in 1950 on January 24.
21. The National Anthem of India was first sung in the meeting of Indian National Congress, Calcutta on December 27, 1911.
22. The National Anthem of India takes 52 seconds to sing or play.
23. A 21 gun salute is given every Republic Day when the President of India unfurls the national flag.
24. Republic Day celebration of India lasts for three days and concludes with Mahatma Gandhi's favourite hymn 'Abide by Me' during the Beating Retreat.
25. Beating Retreat ceremony is held on January 29 at Vijay Chowk with the performance of Indian Army, Air Force and Navy bands. It marks the end of the Republic Day celebrations in India.
26. This day is one of three national holidays, the other two being Independence Day on August 15 and Gandhi Jayanti on October 2.

'TROPEX' KICKS OFF

Aircraft carrier INS Vikramaditya backed by nuclear submarine INS Chakra besides fighting assets of the Indian Navy and Coast Guard have come together in the country's biggest inter-service **'Tropex' exercise** along the western seaboard. The navy's annual Theatre Readiness Operational Exercise (TROPEX) got underway on January 24. The month-long exercise will have ships and aircraft of both the Western and Eastern Naval Commands, as also assets from the Indian Air Force, Indian Army and the Indian Coast Guard exercising together.

What

1. The last edition of the exercise was conducted in January 2015.
2. Tropex has grown in scale and complexity over the years and will see participation of major surface combatants and air assets of the Indian Navy including INS Vikramaditya, INS

Chakra, Landing Platform Dock (LPD) Jalashwa, the recently commissioned destroyer INS Chennai, P-8I long range maritime reconnaissance and anti-submarine warfare aircraft operating alongside SU-30 MKI, Jaguars, AWACS, IL-78 Flight Refuelling Aircraft of the Indian Air Force and infantry units of the Indian Army.

3. The exercise will be conducted in various phases, both in harbour and at sea encompassing the various facets of war-fighting and combat operations.
4. Tropex-17 assumes special significance in the backdrop of the current security scenario.
5. The exercise is aimed at testing combat readiness of the combined fleets of the Indian Navy, and the assets of the Indian Air Force, Indian Army and the Indian Coast Guard.
6. It will also strengthen interoperability and joint operations in a complex environment.

INTERNATIONAL

SEVEN NEW COUNTRIES JOIN BEPS AGREEMENT

Seven new countries Lithuania, Gabon, Hungary, Indonesia, Malta, Mauritius and Russia – have signed Multilateral Competent Authority Agreement for Country-by-Country Reporting (CbC MCAA). With this, the total number of signatories has increased to 57 including India (signed in May 2015). CbC MCAA is a tax co-operation agreement to enable automatic sharing of country-by-country information.

What

1. The CbC MCAA aims to boost transparency by multinational enterprises (MNEs) by allowing signatories to bilaterally and automatically exchange country-by-country reports.
2. This exchange of information is facilitated as part of Action 13 of the base erosion and profit shifting (BEPS) Action Plan adopted by the OECD and G20 countries in 2013.
3. The agreement will help to ensure that tax administrations obtain better understanding of how MNEs structure their operations and also ensure that the confidentiality and appropriate use of such information is safeguarded.

25TH ASIA-PACIFIC FORUM

The 25th Asia-Pacific Parliamentary Forum (APPF) opened on 16 January 2017 in Fiji, focusing on parliamentary partnerships for peace and security. The five-day forum, which was being held at Natadola saw the participation of delegations from over 20 countries from the Asia-Pacific region, including Australia, China, Japan, Peru, Philippines, and Russia.

What

1. Fijian Prime Minister Voreqe Bainimarama, who declared the forum open, called on participants to boost parliamentary partnerships that would be in line with the sustainable development goals of the UN.
2. The APPF has shown many other countries and international institutions how elected legislatures can lead the way in deepening regional cooperation to spur economic **development,” Bainimarama said.**
3. The APPF is a mechanism that enables parliamentarians to discuss issues of common concern, and to deepen their understandings of the region and the interests and experiences of different countries.
4. The 24th APPF was hosted by Canada in 2016.

INDIA & RUSSIA TO DEVELOP PAK FA

The BrahMos supersonic cruise missile will be mounted in submarines’ torpedo launchers and on Russia’s fifth-generation T-50 PAK FA fighter jet, CEO and General Designer of the Machine-Building R&D Consortium Alexander Leonov said. The development was reported by Russian news agency TASS.

What

1. The two countries are developing a Fifth Generation Fighter Aircraft (FGFA), which is an Indian version of the PAK FA. But the FGFA will have more than 40 improvements over

the Russian version.

2. Last year, **India and Russia had agreed 'in principle' to export BrahMos to the UAE**, Vietnam, South Africa and Chile, as reported by TASS.
3. **The BrahMos supersonic cruise missile is the product of Russia's Machine-Building Research and Development Consortium and India's Defense Research and Development Organization**, which set up BrahMos Aerospace joint venture in 1998.
4. **The missile's name comes from the names of two rivers: the Indian Brahmaputra and the Russia's Moskva River**. The missile has a range of 290 km and carries a warhead weighing from 200 to 300 kg.

INDIA, UAE INK 14 PACTS

India upgraded its relations with UAE through a Comprehensive Strategic Partnership (CSP) that included wide-ranging defence and energy pacts to further Delhi's interests in Gulf region that traditionally have warm ties with Pakistan. The shift is signified with India inviting the Crown Prince of Abu Dhabi Sheikh Mohammed bin Zayed Al Nahyan as Chief Guest for Republic-day. As many as 14 pacts were signed following PM Narendra Modi's dialogue with the visitor -- second such dialogue between the two in less than a year's time.

What

1. The CSP with India is not an empty box. This includes robust defence ties and Modi outlined this vision in his remarks to the media following his talks with Zayed Al Nahyan.
2. Modi said security and defence cooperation was another area that "has added growing new dimensions to our relationship". He noted, "We have agreed to expand our useful cooperation in the field of defence to new areas including in the maritime domain. The MoU (memorandum of understanding) on defence cooperation, will help steer our defence engagements in the right direction."
3. The MoU on cooperation in the field of Defence Industry aims to establish cooperation in the identified fields of defence manufacturing and technology, including through studies, research, development, innovation and cooperation between public and private sector institutions of the two countries.
4. The two sides will cooperate in areas of armaments, defence industries and transfer of technology.
5. India sees UAE as one its main destinations for arms exports in the future. Reliance Defence Limited has earlier signed a strategic MoU with Emirates Defence Industries Company, a leading integrated Defence Company in the United Arab Emirates.
6. But it was not just defence pact that is key element of the Crown Prince visit. The two sides also concluded an Agreement on Oil Storage and Management for the storage of crude oil by Abu Dhabi National Oil Company in Mangalore and to further strengthen the strategic relationship between the two countries in the field of energy.
7. UAE contributes in a major way to India's energy security, being the sixth-largest supplier of crude oil. India is the second-largest destination for UAE's oil exports. Since India imports nearly 80 percent of its oil requirements, the government had decided to set up oil storages as a cushion against external supply disruptions, as also during emergencies. These storages, typically in rock caverns, are in addition to the existing ones of oil companies.
8. This was the first time that UAE diplomats were targeted on foreign soil. Earlier in 2015 UAE has been upset with Islamabad for its refusal to send troops in the Yemen conflict.
9. Economic and investment ties too were focus of Modi- Zayed Al Nahyan dialogue. Resource rich UAE sees considerable economic opportunities in India as evidenced by its **decision to invest \$75 billion in India's infrastructure over the long term**. Stating that work was on to connect the institutional investors of the UAE with India's National Investment and Infrastructure Fund, Modi suggested the Gulf nation "can benefit by linking with our growth in manufacturing and services".

TRADE AGREEMENT NEGOTIATIONS WITH PERU APPROVED

The Indian Cabinet chaired by the Prime Minister Narendra Modi approved holding negotiations for Trade Agreement with Peru on trade in goods, services and investment. A Joint Study Group (JSG) between India and Peru was constituted in order to explore the possibility for

entering into trade agreement with Peru on 15th January, 2015. Both sides concluded the Joint Study Group Report on 20th October, 2016 and agreed to carry forward the discussions on trade in goods, trade in services and investment.

What

1. Peru ranks 3rd amongst export destinations for India in the Latin America and Caribbean (LAC) region during 2015-16.
2. India's bilateral trade with Peru was US\$ 107.32 million during 2005-06 which registered a growth of 1319.45% during 2015-16. During 2015-16, bilateral trade stood at US\$ 1,523.35 million with exports at US\$ 703.12 million and imports US\$ 820.22 million respectively.
3. India has friendly relations with Peru. Peru has been cooperating with India at the International fora and the trade agreement will enhance the trade and economic relations between the two countries.
4. The trade agreement would be an important landmark in India-Peru relations and consolidate the traditional fraternal relations that have existed between India and LAC countries.
5. This is a landmark decision which will be first such comprehensive pact with a Latin American country and send a huge message to others in that region of India's commitment.

CHINA COMMISSION'S 31ST STEALTH WARSHIP

China has commissioned its 31st stealth warship as it got its battle group under its first aircraft carrier ready amid tensions with the US and other nations over its assertiveness in the disputed South China Sea. The People's Liberation Army Navy has commissioned its 31st Type-056 class corvette, marking a new addition to the world's largest fleet of modern corvettes.

What

1. With a maximum speed of 52 km/h, the ship features good manoeuvrability, a high-level of automation and stealth capability, and is capable of hitting aircraft, ships and submarines.
2. The CNS Ezhou with a hull number of 513 was delivered to the East Sea Fleet in a naval base in East China's Fujian province.
3. The ship will perform coastal patrol, fishery escort, anti-submarine and anti-ship operations.
4. It is the second ship that has been commissioned to the PLA Navy since the start of 2017, following the CNS Kaiyangxing, a Type-815A class electronic reconnaissance ship, which now belongs to the North Sea Fleet.
5. Russia has the world's largest corvette group that consists of about 80 vessels, but most of them were built in the 1980s and 1990s and cannot compete with the Type-056 in terms of technology and equipment, the report quoted defence observers as saying, adding that China's fleet is now the biggest force of modern corvettes of all navies.

MAURITIUS GETS NEW PM

Mauritian Prime Minister Sir Anerood Jugnauth handed over power to his son Pravind despite anger from the opposition which has called for new elections in the island nation. Jugnauth, 86, officially handed his resignation to President Ameenah Gurib Fakim – whose role is ceremonial - after long hinting he would step down before his term expires in 2019.

What

1. Mauritius is a model of political stability in Africa, however the handover has created turbulence on the Indian Ocean Island, best known as a dream beach holiday destination.
2. The younger Jugnauth is both finance minister and leader of the ruling Militant Socialist Movement (MSM).
3. **The opposition has rejected his "inheritance" of the position, and will be boycotting his inauguration. The best would have been for the prime minister to dissolve the national assembly before his resignation and call an early election," said opposition leader and former Prime Minister Paul Berenger.**
4. That sentiment is shared by numerous residents phoning in to local radio shows, declaring they voted for Jugnauth senior in 2014, not his son. Jugnauth has done several stints as premier since 1982 and one in the ceremonial role of president.

ECONOMY

IPPB STARTS PILOT SERVICES

India Post Payments Bank (IPPB) on 30 January 2016 kicked off its operations by rolling out pilot services in Raipur and Ranchi. The bank will offer an interest rate of 4.5% on deposits up to ₹25,000; 5% on deposits of ₹25,000-50,000 and 5.5% on ₹50,000-1,00,000, its Chief Executive Officer A.P. Singh said. The paid up equity of the new bank is ₹800 crore, of which the government has already infused ₹275 crore.

What

1. The idea is to have a branch in every district and make 3 lakh postmen come alive in payment bank function.
2. Terming IPPB as a mechanism for financial inclusion and a milestone, Sinha said the payments bank — the third one to get a permit after Airtel and Paytm and the first one promoted by the government — will not just conduct business but also serve people.
3. India Post Payments Bank is the third entity to receive payments bank permit after Airtel and Paytm. Payments banks can accept deposits up to ₹1 lakh per account from individuals and small businesses.
4. The new model of banking allows mobile firms, super market chains and others to cater to banking requirements of individuals and small businesses. It will be set up as a differentiated bank and will confine its activities to acceptance of demand deposits, remittance services, Internet banking and other specified services.
5. **In 2015, the RBI had granted ‘in-principle’ approval to 11 entities**, including the Department of Posts, to set up payments banks and proposed to give such licences ‘on tap’ basis in future.

FIRST EVER NORTH EAST INVESTORS’ SUMMIT

The first ever “Investors Summit” exclusively for North Eastern Region (NER), organized jointly by the Ministry of Textiles and the Ministry of DoNER during 29-30 January, 2017, would be inaugurated by the Union Textiles Minister, Smt. Smriti Zubin Irani in Shillong, at the State Convention Centre, on 29th January, 2017.

What

1. The **Ministry of Textiles has taken the initiative to organize the first ever “Investors Summit”** exclusively for NER, in association with Ministry of DONER and the Industry Associations FICCI and CII on 29-30 January 2017 at Shillong.
2. Focussed on manufacturing in textiles and allied sectors, the theme of the Summit is **“Exploring Opportunities in North East Region”**.
3. The summit aims to showcase the NER as a global destination for investment, and to explore the possibility of bringing in convergence of efforts of various central Ministries and North Eastern States to attract investment in NER.

ECONOMIC SURVEY 2017

The Economic Survey 2017, tabled in Parliament, **projected that the country’s gross domestic product (GDP) will grow by 6.75 per cent to 7.5 per cent in 2017-18.**

Important Point of Economic Survey 2017

1. Demonetisation impact: The adverse impact of demonetisation on GDP growth will be transitional. Real GDP growth in 2017-18 is projected to be in the range of 6.75 – 7.5 per cent, once the cash supply is replenished.
2. Industrial growth to cool: Growth rate of the industrial sector estimated to moderate to 5.2 per cent in 2016-17 from 7.4% last fiscal. The agriculture sector to grow at 4.1 per cent in the current year up from 1.2 per cent in 2015-16
3. Per-capita GSDP: Real per capita GSDP between 1983 and 2014 has shown across-the-board improvement
4. Remonetisation: The Economic Survey 2017 has suggested quick remonetisation, push for

digitisation, bringing land and real estate under GST ambit, reduction in taxes and stamp duties and an improved tax administration system as key reform measures to ensure long term economic benefits.

5. **States' performance:** There has been an improvement in the financial position of states over the last few years. The average revenue deficit has been eliminated, while the average fiscal deficit was curbed to less than 3 percent of GSDP. The average debt to GSDP ratio has also fallen. **Centre's Fiscal Responsibility and Budget Management (FRBM) Act**, mirrored by Fiscal Responsibility Legislations (FRL) adopted in the States.
6. **NPAs:** As per the Survey, gross NPAs has climbed to almost 12 per cent of gross advances for public sector banks at end-**September 2016. At this level, India's NPA ratio is higher than** any other major emerging market, with the exception of Russia. The consequent squeeze of banks has led them to slow credit growth to crucial sectors-especially to industry and medium and small scale enterprises (MSMEs)-to levels unseen over the past two decades. As this has occurred, growth in private and overall investment has turned negative . A decisive resolution is urgently needed
7. **Asset rehabilitation:** Survey suggests setting up of a centralised Public Sector Asset Rehabilitation Agency that will look after the largest, most difficult Cases, and make Politically Tough Decisions to reduce Debt.
8. **Poor targeting:** According to the Survey, redistribution by the government is far from efficient in targeting the poor. The Survey points out that the capacity of the State in delivering essential services such as health and education is weak due to low capacity, with high levels of corruption, clientelism, rules and red tape. At the level of the states, competitive populism is more in evidence than competitive service delivery.
9. **Universal Basic Income:** The Survey has advocated the concept of Universal Basic Income (UBI) as an alternative to the various social welfare schemes in an effort to reduce poverty. The Survey points out that the two prerequisites for a successful UBI are: (a) functional JAM (Jan Dhan, Aadhar and Mobile) system as it ensures that the cash transfer goes directly into the account of a beneficiary and (b) Centre-State negotiations on cost sharing for the programme.
10. **Property tax:** A study done for the Survey shows that property tax potential is large and can be tapped to generate additional revenue at city level. Satellite imagery can be a useful tool for improving urban governance by facilitating better property tax compliance.
11. **Job creation:** The Survey says Apparel and Leather industry are key to generation of formal and productive jobs: recommends reforms in labour and tax policies to make the Apparel and Leather sector globally competitive. The Survey adds that these sectors provide immense opportunities for creation of jobs for the weaker sections, especially for women, and can become vehicles for broader social transformation in the country.
12. **Labour migration:** New estimates of labour migration in India have revealed that inter-state labour mobility is significantly higher than previous estimates. Relatively poorer states such as Bihar and Uttar Pradesh have high net out-migration. Seven states take positive CMM values reflecting net in-migration: Goa, Delhi, Maharashtra, Gujarat, Tamil Nadu, Kerala and Karnataka. Policy actions to sustain and maximise the benefits of migration include: ensuring portability of food security benefits, providing healthcare and a basic social security framework for migrants – potentially through an inter-state self-registration process.

FIVE GENERAL INSURANCE PSUS IN STOCK EXCHANGES

The Cabinet Committee on Economic Affairs (CCEA) **has given its 'in principle' approval** for listing the five Public Sector General Insurance Companies (2016-17) owned General Insurance Companies in the stock exchanges. They are New India Assurance Company Ltd, United India Insurance Company Ltd, Oriental Insurance Company Ltd, National Insurance Company Ltd and General Insurance Corporation of India. The shareholding of these PSGICs will be divested from 100% to 75% in one or more tranches over a period of time as per Securities and Exchange Board of India (SEBI) and Development Authority of India (IRDAI) rules and regulations.

CENTRE, STATES BREAK IMPASSE OVER GST

In a significant breakthrough, the GST Council on 16 January 2017 broke a deadlock on contentious issues of administration over assesses, the right of coastal states to tax economic

activities within 12 nautical miles inside sea and broadly agreed to roll out the goods and services tax from July one, 2017 instead of earlier planned April one.

What

1. Against the earlier proposals of reserving all administration of assesseees up to Rs 1.5 crore of annual turnover with states – technically called horizontal model-- and another of allowing both the Centre and states to have such control—technically called cross empowerment-- the Council decided to blend the two.
2. Now the entire tax base will be shared between the Centre and states in a pre-determined ratio.
3. The Centre and states agreed that the latter will have power to administer 90 per cent of assesseees up to annual turnover of Rs 1.5 crore, while the former will have such power to audit, send notices and scrutinize over 10 per cent of the tax base.
4. Those assesseees which have over Rs 1.5 crore of turnovers would be administratively controlled by the Centre and states in the ratio of 50:50.
5. Those assesseees who fall under integrated GST (IGST) or in simple words involved in the movement of goods and services between states will also be shared between the union government and states in a manner described above.
6. However, the Centre will retain the power to collect IGST.
7. The Centre also gave the right to tax economic activities within 12 nautical miles to coastal states even as these will continue to be considered union territories.
8. Under the present system as well, the states have the right to tax these activities.

SCIENCE AND TECHNOLOGY

RARE METEORITES CHANGE SOLAR SYSTEM'S HISTORY

After analysing minerals from 43 rare meteorites that landed on Earth 470 million years ago, a team of scientists proposes to revise the current understanding of the history and development of the solar system. There was a giant collision in outer space 460 million years ago. Something hit an asteroid and broke it apart, sending chunks of rock falling to Earth as meteorites since before the time of the dinosaurs.

What

1. The discovery confirms the hypothesis presented by geology professor Birger Schmitz at Lund University in Sweden. **He found what he referred to as an “extinct meteorite” – a meteorite dinosaur – which was named “Österplana 065”.**
2. **The term ‘extinct’ was used because of its unusual composition, different from all known groups of meteorites, and because it originated from a celestial body that was destroyed in ancient times.**
3. The discovery led to the hypothesis that the flow of meteorites may have been completely different 470 million years ago compared to today, as meteorites with such a composition no longer fall on Earth.
4. The new results confirm the hypothesis. Based on 43 micrometeorites, which are as old as Österplana 065, the new study shows that back then, the flow was actually dramatically different.

EARTH, MOON FORMED FROM SIMILAR MATERIALS

The Earth as well as the Moon and certain meteorites were formed from materials that were more similar, holding almost indistinguishable isotopic characteristics, a new study has found. Most scientific models contend the Earth formed gradually by addition from an assortment of Moon- to Mars-sized masses that had a vast array of isotopic characteristics, researchers said.

What

1. The Earth accreted from an isotopically homogenous reservoir,” said Nicolas Dauphas, Professor at University of Chicago in the US.
2. **In terms of colours, you could say that it was not ‘green, blue, red,’ but rather ‘green, green, green.** By analysing data for certain elements, Dauphas was able to decipher the isotopic

nature of the material that formed the Earth.

3. **Anomalies in the elements provided “fingerprints” to recreate the formation process, helping to establish “genetic ties” between planetary bodies and their building blocks.** Dauphas used the isotopic similarities he found in select elements to record the stages of Earth’s formation. Soon after the Earth formed 4.5 billion years ago and as its core grew, the core attracted elements that had strong affinities for metal.
4. As core formation was almost complete, however, such elements – as they continued to arrive from space – were left to reside in the mantle.
5. This helps explain the age of parts of the Earth and the role they played in forming our planet, Dauphas said. In addition, the research reveals that a rare type of extraterrestrial material known as enstatite meteorites (named after a mineral they contain in abundance) formed half of the first 60 per cent of the Earth.
6. After that, 100 per cent of the rest of the Earth was formed by enstatite-type impactors. **Before this work, the question of the nature of the Earth’s accreting material through time was mostly rhetorical.**

UNIVERSE EXPANDING FASTER THAN THOUGHT

The universe is expanding at a rate faster than previously believed, scientists have confirmed, a finding that may completely overturn our understanding of the cosmos. Astronomers using the NASA/ESA Hubble Space Telescope have made a measurement of how fast the Universe is expanding. The Hubble constant – the rate at which the Universe is expanding – is one of the fundamental quantities describing our Universe. Astronomers from the HOLiCOW collaboration, led by Sherry Suyu from the the Max Planck Institute for Astrophysics in Germany, used telescopes in space and on Earth to observe five galaxies in order to arrive at an independent measurement of the Hubble constant.

What

1. The new measurement is in excellent agreement with other measurements of the Hubble constant in the local Universe that used Cepheid variable stars and supernovae as points of reference.
2. However, the value measured by Suyu and her team, as well as those measured using Cepheids and supernovae, are different from the measurement made by the ESA Planck satellite. Planck measured Hubble constant for the early Universe by observing the cosmic microwave background.
3. While the value for the Hubble constant determined by Planck fits with our current understanding of the cosmos, the values obtained by the different groups of astronomers for the local universe are in disagreement with our accepted theoretical model of the universe.
4. The expansion rate of the universe is now starting to be measured in different ways with such high precision that actual discrepancies may possibly point towards new physics beyond our current knowledge of the universe.
5. The targets of the study were massive galaxies positioned between Earth and very distant quasars – incredibly luminous galaxy cores. The light from the more distant quasars is bent around the huge masses of the galaxies as a result of strong gravitational lensing. This creates multiple images of the background quasar, some smeared into extended arcs.
6. Since galaxies do not create perfectly spherical distortions in the fabric of space and the lensing galaxies and quasars are not perfectly aligned, the light from the different images of the background quasar follows paths which have slightly different lengths.

MISCELLANEOUS

INCLUSIVE DEVELOPMENT INDEX

India has been ranked 60th among 79 developing economies, below neighbouring China and Pakistan, in the inclusive development index, according to a WEF report. **WEF’s ‘Inclusive Growth and Development Report 2017’, released, said that most countries are missing important opportunities to raise economic growth and reduce inequality at the same time because the growth model and measurement tools that have guided policymakers for decades require**

significant readjustment.

What

1. The Inclusive Development Index (IDI) is based on 12 performance indicators. In order to provide a more complete measure of economic development than GDP growth alone, the index has three pillars — Growth and Development, Inclusion and Intergenerational Equity, and Sustainability.
2. Lithuania tops the list of 79 developing economies that also features Azerbaijan and Hungary at second and third positions, respectively.
3. India is placed at the 60th spot, many of the neighbouring nations are ahead in the rankings. China is ranked at the 15th position, Nepal (27th), Bangladesh (36th) and Pakistan (52nd).
4. Two BRIC nations, Russia and Brazil, are at 13th and 30th places, respectively. Others in the top ten are Poland (4th), Romania (5th), Uruguay (6th), Latvia (7th), Panama (8th), Costa Rica (9th) and Chile (10th).
5. India, with a score of only 3.38, ranks 60th among the 79 developing economies on the IDI, despite the fact that its growth in GDP per capita is among the top 10 and labour productivity growth has been strong.
6. Among the advanced economies, Norway is at the top, followed by Luxembourg (2nd), Switzerland (3th), Iceland (4th) and Denmark (5th). Other nations in the top ten advanced economies are Sweden (6th), Netherlands (7th), Australia (8th), New Zealand (9th) and Austria (10th).
7. IDI scores are based on a scale of 1-7. Advanced and developing economy IDI scores are not strictly comparable due to different definitions of poverty.

TALENT COMPETITIVENESS 2017

India has slipped 3 places to 92nd rank on the global index of talent competitiveness that measures how countries grow, attract and retain talent, a list topped by Switzerland. India's ranking is worst among the five BRICS countries. While China was ranked at the 54th place, Russian Federation was placed at 56th, followed by South Africa at 67th and Brazil 81st.

As per Index

1. Switzerland topped the overall index followed by Singapore and the United Kingdom in second and third places respectively, in the list released by INSEAD Produced in partnership with The Adecco Group and the Human Capital Leadership Institute of Singapore (HCLI).
2. Others in the top 10 include the United States (4th), Sweden (5th), Australia (6th), Luxembourg (7th), Denmark (8th), Finland (9th) and Norway (10th).
3. Last year, India came in at 89th on the index.
4. The report noted that the BRICS countries are not getting stronger and both China and India have slipped from their year-ago rankings.
5. Although China attains an impressive 4th place in the sub-pillar of Talent Impact and is solid in the Grow pillar - mainly supported by good formal education (23rd) and lifelong learning (20th), the shortage of vocational and technical skills shows up clearly.
6. India stood on a relatively solid pool of global knowledge skills compared with other emerging markets, the country is not able to retain and attract talent.
7. In terms of retaining and attracting talent, India was ranked at a lowly 104th and 114th, respectively.
8. The index also released the first-ever global ranking of cities on the basis of their reputation and growing footprint in attracting, growing, and retaining global talent.
9. Mumbai was the only Indian city that has made it to this coveted list, topped by Copenhagen.
10. The top 10 global cities in terms of talent competitiveness include Zurich, Helsinki, San Francisco, Gothenburg, Madrid, Paris, Los Angeles, Eindhoven and Dublin.
11. The 2017 report explores the effect of technological change on talent competitiveness and noted that while jobs at all levels continue to be replaced by machines, technology is also creating new opportunities.

NEW CBI CHIEF

Delhi Police Commissioner Alok Kumar Verma was appointed Director of CBI, country's premier

probe agency. His name was cleared by a three-member selection panel headed by Prime Minister Narendra Modi and comprising Chief Justice of India Jagdish Singh Khehar and Congress leader in Lok Sabha Mallikarjun Kharge as members.

What

1. The post of CBI director was lying vacant for over one month following Anil Sinha's retirement on December 2.
2. At present, Gujarat-cadre IPS officer Rakesh Asthana is the interim director of the investigating agency.
3. Verma, a 1979 batch IPS officer of Arunachal Pradesh-Goa-Mizoram and Union Territories (AGMUT) cadre, took over as Delhi Police Commissioner from February 29, 2016.

SERENA WILLIAMS CAPTURES AUSTRALIAN OPEN

Serena Williams has won her record 23rd Grand Slam singles title with a 6-4, 6-4 victory over her older sister Venus in Australian Open final. With her record seventh Australian title, the 35-year-old Williams moved ahead of Steffi Graf for the most major titles in the Open era. Margaret Court won 24 majors, but collected 13 of those before the Open era. Williams has won 15 majors since last losing to Venus in a Grand Slam final, at Wimbledon in 2008.

REPUBLIC DAY PARADE 2017 AWARDS

The results of different competitive presentations in the Republic Day Parade 2017 have been announced by the Ministry of Defence. Among the Services category, Madras Engineer Group has been adjudged the best marching contingent. In the category of Para-Military Forces and other auxiliary marching contingents, Central Industrial Security Force (CISF) contingent has been adjudged the best marching contingent.

What

1. In the tableau category, in total 23 tableaux including six from Union Ministries / **Departments took part in this year's Republic Day Parade, out of which** first position has gone to Arunachal Pradesh tableau, which depicted the Yak dance, one of the most famous pantomimes of the Mahayana sect of Buddhist tribes of Arunachal Pradesh. **Tripura's tableau based on 'Hojagiri' dance**, depicting the magnificent Reang tribal dance was adjudged the second best, while the third position was shared by Maharashtra and Tamilnadu. The tableau of Maharashtra depicted the commemoration of 160th birth anniversary of the honoured freedom fighter, Lokmanya Balgangadhar Tilak. The Tamilnadu tableau portrayed the popular **folk dance 'Karagattam'** which forms an important event in temple festival celebrations, especially in Amman temple festivals in the rural areas of Tamilnadu.
2. In the category of tableaux representing Union Ministries/Departments, the first prize has been awarded to the Ministry of Skill Development and Entrepreneurship which **depicted the theme 'Transforming India through Skill Development', and highlighted the achievements of the Ministry and its programmes.** The tableau presented by the Central **Public Works Department (CPWD) depicting the concept of 'Green India-Clean India' was selected for a special prize by the jury.**
3. In the competitive category of school children items, the dance presented by Kendriya Vidyalaya, Pitampura, Delhi has been adjudged the best children item for their performance to express how our National Flag has been a witness to the glorious tales of our freedom fighters, establishment of Indian democracy, the endless affection of Indians, **women's empowerment** and such countless achievements.
4. A Consolation Prize has also been awarded to South Central Zone Cultural Centre, Nagpur **for their performance of the 'Saila Karma' dance which is a popular dance of the Gond Tribe of Dindori district in Madhya Pradesh.**
5. As in previous years, this year also Ministry of Defence had appointed three panels of judges for assessing the marching contingents from three Services, Para-Military Forces and Tableau from various States/Ministries/Departments and School Children items from Schools of Delhi as well as outside Delhi.

SAINA NEHWAL CLINCHES MALAYSIA MASTERS TITLE

Indian badminton star Saina Nehwal was forced to dig deep to overcome unseeded Thailand

teenager Pornpawee Chochuwong in straight games to clinch the women's singles title of the Malaysia Masters Grand Prix Gold. The 26-year-old top seed utilised her bank of experience and her vintage never-say-die attitude to pull off a 22-20, 22-20 win in 46 minutes to bag her first title after making a comeback after a knee surgery she underwent in August.

What

1. Initially slow, Saina was taken to task by Pornpawee, who made the best use of her delectable drop shots to run to an 11-5 lead till the two-minute halfway break.
2. The women's doubles title went to Thai top-seeded pair of Jongkolphan Kititharakul and Rawinda Prajongjai, who moved past Poon Lok Yan and Tse Ying Suet of Hong Kong 21-17, 21-9 in 33 minutes.
3. Indonesian mixed doubles pair of Berry Angriawan and Hardianto Hardianto decimated the dreams of home challengers Sze Fei Goh and Nur Izzuddin with a 21-19, 21-12 victory in 44 minutes.

DELHI AIRPORT BAGS CSR AWARD

GMR Group-led consortium Delhi International Airport Ltd. (DIAL) has bagged the prestigious Golden Peacock Award for Corporate Social Responsibility in the aviation transport sector for 2016.

What

1. The award was presented at a special presentation ceremony during the 11th International Conference on Corporate Social Responsibility.
2. The award reaffirms our commitment towards achieving exemplary results for our society while following the best practises.
3. The Golden Peacock Awards were founded by the Institute of Directors, India, in 1991 and are globally regarded as a benchmark of corporate excellence.
4. The National Quality Award Scheme was instituted to encourage total quality improvements in both manufacturing and service organisations in India.
5. Over 325 responses were received for the annual awards this year, of which 191 shortlisted applications were subjected to a three-tier assessment process for final selection.
6. Earlier, DIAL also won the 6th EPC World Awards for its contribution in the infrastructure and construction sector.
7. The Delhi airport has been adjudged as the world's no. 1 airport in ACI ASQ survey in the 25-40 million passengers per annum category for two consecutive years from 2014.

WORLD'S MOST DYNAMIC LIST

Six Indian cities have made it to the world's 30 most dynamic places that have the ability to embrace technological change, absorb rapid population growth and strengthen global connectivity, with Bengaluru topping the chart. Cities in India, China and Vietnam, along with several in the US, head the list of world's fastest changing cities in JLL's fourth annual City Momentum Index.

What

1. Other Indian cities in the list are Hyderabad at the 5th position, Pune (13), Chennai (18), Delhi (23) and Mumbai (25).
2. Asia Pacific cities comprise half the top 30 fastest- changing cities.
3. India has taken over from China as home to some of the world's most dynamic cities. Six Indian cities feature in the CMI Global Top 30, with the country's primary technology hub, Bangalore, moving into the top spot for the first time.
4. Top 10 cities in the JLL index are Bengaluru, Ho Chi Minh City, Silicon Valley, Shanghai, Hyderabad, London, Austin, Hanoi, Boston and Nairobi.
5. The report noted that dynamic labour markets help fuel some 'Emerging Megacities' such as Chennai, Manila, Delhi and Mumbai. However, this group faces significant infrastructure and quality of life issues, with high levels of inequality, congestion and pollution hindered by weak city governance.
6. In all, 134 cities were assessed by CMI using 42 variables including recent and projected changes in city GDP, population, corporate headquarter presence, commercial

real estate construction and rents.

7. Other factors included education, innovation and environment.

OXFAM REPORT ON WEALTH

India's richest 1 per cent now holds a huge 58 per cent of the country's total wealth — higher than the global figure of about 50 per cent, a new study showed on 16 January 2017. The study, released by rights group Oxfam ahead of the World Economic Forum (WEF) annual meeting attended by rich and powerful from across the world, showed that just 57 billionaires in India now have same wealth (USD 216 billion) as that of the bottom 70 per cent population of the country.

As per report

1. Globally, just 8 billionaires have the same amount of wealth as the poorest 50 per cent of the world population.
2. There are 84 billionaires in India, with a collective wealth of USD 248 billion, led by Mukesh Ambani (USD 19.3 billion), Dilip Shanghvi (USD 16.7 billion) and Azim Premji (USD 15 billion). The total Indian wealth in the country stood at USD 3.1 trillion.
3. The total global wealth in the year was USD 255.7 trillion, of which about USD 6.5 trillion was held by billionaires, led by Bill Gates (USD 75 billion), Amancio Ortega (USD 67 billion) and Warren Buffett (USD 60.8 billion).
4. **In the report titled 'An economy for the 99 per cent', Oxfam said it is time to build a human economy that benefits everyone, not just the privileged few.**
5. Referring to the Global Wage Report 2016-17 of Indian Labour Organisation, the study said India suffers from huge gender pay gap and has among the worst levels of gender wage disparity — men earning more than women in similar jobs — with the gap exceeding 30 per cent.
6. In India, women form 60 per cent of the lowest paid wage labour, but only 15 per cent of the highest wage-earners. It means that in India women are not only poorly represented in the top bracket of wage-earners, but also experience wide gender pay gap at the bottom.

CORRUPTION PERCEPTION INDEX

India has been ranked 79th out of 176 countries in the recently released Corruption Perception Index (CPI) for the year 2016 by the Berlin-based corruption watchdog Transparency International (TI). The index has been compiled by using World Bank data, the World Economic Forum (WEF) and other institutions. It ranks countries on the score in the scale ranging from 0 (highly corrupt) to 100 (very clean).

What

1. Top 10 Countries: New Zealand and Denmark in joint first place (with a score of 90), followed by Finland (3rd), Sweden (4th), Switzerland (5th), Norway (6th), Singapore (7th), Netherlands (8th), Canada (9th) and Germany (10th).
2. Countries bottom of the index: Somalia was ranked the most corrupt country. Other countries with lower rankings were Syria, South Sudan, North Korea, Afghanistan, and Iraq. In this edition of list, India, China and Brazil with a score of 40 each figured in the 10 key economies in the mid-range.

WORLD'S LIGHTEST WATCH UNVEILED

The **world's lightest mechanical watch revealed** is a key step forward into the development of more widespread applications of graphene, officials at the University of Manchester said. Graphene, first isolated in 2004 by Nobel-winning scientists at the university, is just an atom thick, and is expected to revolutionise the automotive and aerospace industries.

What

1. The watch was unveiled in Geneva. The watch was a unique collaboration with watchmaking brand Richard Mille and racing team, **McLaren F1 to create world's lightest mechanical chronograph** by pairing leading graphene research with precision engineering.
2. The RM 50-03 watch is made using a unique composite incorporating graphene to

- manufacture a strong but lightweight new case to house the delicate watch mechanism.
3. The graphene composite known as Graph TPT weighs less than previous similar materials used in watchmaking.
 4. The strap of the watch has also been improved by the addition of graphene material. The rubber of the strap was also injected with graphene which has shown to improve its mechanical properties and its resistance to wear.
 5. Overall the ultralight watch weighs just 40 grams.

THE WORLD'S MOST INNOVATIVE ECONOMIES

South Korea remained the big winner in the 2017 Bloomberg Innovation Index, topping the charts in research and development (R&D) intensity, value-added manufacturing and patent activity and with top-five rankings in high-tech density, higher education and researcher concentration. Scant progress in improving its productivity score—now No. 32 in the world—**explains why the country's lead narrowed in the past year.**

What

1. Sweden climbed to No. 2 and Finland cracked into the top five in the index, which scores economies using factors including R&D spending and the concentration of high-tech public companies.
2. Silver medal winner Sweden owes most of its rise to improvement in the manufacturing value-added metric, while Nordic neighbour Finland jumped two spots in large part because of the rise of high-tech firms in the country.
3. The biggest loser in **this year's Bloomberg Innovation Index was Russia**, plunging 14 spots to No. 26, almost five times the size of the next-largest drop in the rankings. Battered by sanctions and the after-effects of a couple years of subdued energy prices, **Russia's solid scores last year in manufacturing and productivity were destroyed in this year's tally.**
4. Japan, where the yen is still struggling to recover from an almost two-year slide, dropped the most of any economy in the top 25, moving to No. 7 from No. 4 as it lost its best-in-world distinction for patent activity. Croatia also slipped three spots, to No. 41 from No. 38.
5. The US fell one spot to No. 9 while Israel moved up one notch to No. 10. China held its title as the strongest-ranked emerging market, at No. 21, as it improved its tertiary education score while its high-tech concentration wavered.
6. The ranking began with over 200 economies, from which **those that didn't report data for at least six of seven categories measured were eliminated**, trimming the list to 78. Bloomberg released overall and category scores for the top 50 innovative economies.

INDIA LAGS IN CYBER-SECURITY PREPAREDNESS

The Centre's **impetus to digital payments after demonetisation, announced on November 8, has propelled several sectors to increase their focus on cyber-security**, which several industry experts believe should have been in place well before time considering the growing proliferation of internet services in various sections of the economy. This is highlighted by the fact that out of the 27 cyber risk advisories issued by the Indian Computer Emergency Response Team (CERT-In), 9 pertained to modes of digital payments such as mobile banking, electronic wallets, micro-ATMs and Unified Payments Interface.

What

1. **CERT-In's advisories** are issued to inform users about the possible risks and precautions needed to be taken while using any of the tools.
2. Asia-Pacific region generally is behind Europe and North America in having basic cyber security framework and laws in place, but the entire world is struggling with some of these issues.
3. India is a little behind some of the other countries at a global level in terms of cyber-security preparedness. It is also a little bit behind countries like Japan and Australia perhaps, in part because Japan and Australia have taken more efforts to identify what is working, with the private sector, to bolster cyber-security.
4. During the past year, 70 per cent of organisations were compromised in some way or the other by a successful cyber attack, other the other hand, nearly one-third of organisations do not have a written information security policy.

5. The recently published Global Information Security Survey 2016-17 by consultancy firm EY highlighted the fact that cyber risks do not get appropriate top management attention at business organisations.
6. Cyber resilience is a critical boardroom imperative. The likelihood of operational, financial and reputational **damage is growing as criminals exploit organisations' enhanced attack** surface as a result of their online presence, automated operations, and use of social media, mobile devices and cloud devices.
7. The EY survey also shows that 38 per cent of its respondents, which include IT executives, managers, of large and globally recognised organisations as well as key government entities, **have said that boards of their organisations are not "fully knowledgeable" about cyber risks.**
8. According to the survey, more than half of the respondents do not have a formal, threat intelligence programme, while 44 per cent do not have capabilities to identify vulnerabilities.

INDIA SCORES LOW IN TERMS OF GLOBAL INFLUENCE

India has been ranked low among countries across the world **in terms of being an 'influencer' in the global system while legacy power players such as the US, the UK and Japan continue to dominate, says a report. The Credit Suisse Research Institute published its report 'Getting over Globalization', which outlines how the global economy is moving into a more multi-polar form.** India was given a lowly 2 on a scale of 5 as an influencer or pole based on five broad criteria—economic size, hard power, soft and diplomatic power, and governance quality and distinctiveness.

What

1. The legacy power players such as the US, the UK and Japan continue to dominate; scoring higher on most indicators, the performance of the small developed countries group is noteworthy, plausibly offering competition to larger powers.
2. On a score of 1-5, with 5 being the highest and 1 being the lowest, the US and the small developing countries (Luxembourg, Hong Kong, Singapore, Switzerland, Belgium, Ireland, Denmark, Iceland) got 5 while the UK, euro area (Germany, France, Italy and Spain) and Japan secured 4.
3. Larger growing emerging markets (Russia, India, Brazil, Chile and South Africa) are identified as poles that are significant, but yet to realise their full potential.
4. China led the emerging nation pack with 3 while India, Brazil and Russia scored 2. South Africa received the lowest 1.
5. Globalisation has been the most powerful economic force throughout the past decades. In 2016, we observed changes to globalisation as we have come to know it. Especially from the point of view of international businesses, the changing pace of global trade and political regionalisation will be challenging.
6. **The report further noted that if 2016 is the year that 'broke' globalisation, then 2017 will see the makings of a more multi-polar world.**

CLIMATE CHANGE PLAN TO GET NEW MISSIONS

India's eight-point plan to fight climate change will soon become a 11-point plan with new missions to address the impact of climate change on health, coastal zones and waste-to-energy on the anvil.

What

1. Since 2012, the **Prime Minister's** Council on Climate Change India has instituted a National Action Plan on Assessment, Adaptation and Mitigation of Climate Change, that has specified eight national missions.
2. These include a National Water Mission, Green India Mission, National Solar Mission, National Mission on Sustainable Habitat, National Mission on Enhanced Energy Efficiency, National Mission for Sustaining Himalayan Ecosystem, National Mission for Sustainable Agriculture, and a National Mission on Strategic Knowledge for Climate Change.
3. The impact of climate change is far ranging and we have to consider its impact on health, wind and coastal zones.

INDIA IN RED ZONE ON TRANSPARENCY LIST

A major international index of corruption and transparency has placed India on the watch list for its inability to curb mega corruption scandals and petty bribery. The annual index of Transparency International issued on 25 January 2017 for 2016 placed India with Brazil and China in the 40th position. **India's condition showed growth with inequality.**

What

1. **India's ongoing poor performance with a score of 40** reiterates the state's inability to effectively deal with petty corruption and large-scale corruption scandals, said Transparency International.
2. The impact of corruption on poverty, illiteracy and policy brutality showed that not only was the economy growing but so was inequality.
3. **India's current ranking, putting it in the high corruption zone**, has drawn critical observations from transparency campaigners.
4. South Asia had performed poorly. Bangladesh at 27th and Nepal at 29th positions were slotted in the highly corrupt section.
5. Pakistan, at 32, also came in the red zone. **Afghanistan ranked 15th was in the "highly corrupt" list** with South Sudan, North Korea and Libya.
6. **The organisation recognised China's** recent anti-corruption campaign under President Xi Jinping which had been targeting 'tigers and flies' and slotted it alongside India.
7. **China's latest score was an improvement of three points. India, though it improved two ranks, remained in the same red-zone of corruption.**

INDIA RANKS SIXTH ON EIGHT GREAT POWERS IN 2017

India is ranked at the sixth spot, behind China and Japan, in a list of eight great powers for the year 2017 by a leading American foreign policy magazine which is topped by the US. The list is topped by the US, whereas China and Japan are at tie for being on the second spot. Russia (fourth) and Germany (fifth) are the other two countries ahead of India. Iran is ranked seventh and Israel is on the eighth spot.

What

1. Like Japan, India is often overlooked in lists of the world's great powers, but it occupies a rare and enviable position on the world stage.
2. India is the world's largest democracy, home to the second-largest English-speaking population in the world and boasting a diversified and rapidly growing economy.
3. On the geopolitical front, India has many suitors: China, Japan and the United States are all seeking to incorporate India into their preferred Asian security architecture, while the EU and Russia court New Delhi for lucrative trade and defence agreements.
4. From the Middle East and East Africa to Southeast Asia, India is making its presence felt in both economics and security policy in ways that traditional great powers like Britain and France only wish they could match.

PRODUCERS GUILD'S TOP FILM AWARD

Season favourite "La La Land" won the Producers Guild of America's (PGA) Darryl F Zanuck Award for best feature film of 2016. Producers Fred Berger, Jordan Horowitz, and Marc Platt took home the top honour. Dustin Hoffman presented the award at the conclusion of the 28th Annual Producers Guild Awards ceremonies at the Beverly Hilton Hotel.

What

1. The musical comedy-drama defeated "Arrival," "Deadpool," "Fences," "Hacksaw Ridge," "Hell or High Water," "Hidden Figures," "Lion," "Manchester by the Sea," and "Moonlight."
2. The movie starring Emma Stone as an aspiring actress and Ryan Gosling as a struggling musician is set in modern-day Los Angeles.
3. The PGA has matched the Oscar for best picture in 19 of its 27 years, though it diverged last year when the Zanuck award went to "The Big Short" and the Oscar went to "Spotlight".
4. Netflix's first season of sci-fi horror series "Stranger Things" took the Norman Felton Award for TV drama series.
5. Disney's Oscar-nominated "Zootopia" won the animated movie trophy for producer Clark

Spencer.

- NBC's "The Voice" won the reality competition trophy.

FEDERER WINS AUSTRALIAN OPEN

Swiss legend Roger Federer kept his nerves to fend off 14-time grand slam champion Rafael Nadal in a pulsating summit clash to clinch the men's singles title of the Australian Open. It was Federer's fifth Australian Open title and 18th major crown in all. This was Federer's first win over Nadal in four meetings at the Australian Open. Federer also won his third major final over the Spaniard in nine attempts. Federer will now rise to number 10 in the ATP Rankings.

MISS UNIVERSE 2016

A 23-year-old dental student from France has won the Miss Universe crown in the annual pageant held this year in the Philippines. Iris Mittenaere, who comes from the small town of Lille in northern France, said on 30 January 2017 in reply to a final question from pageant host Steve Harvey that she would be honored if she just landed among the three finalists, but was visibly stunned when she was announced the winner among the field of 86 contestants.

What

- Miss Haiti, Raquel Pelissier, a 25-year-old survivor of the devastating 2010 earthquake that destroyed her hometown, was named first runner up while Miss Colombia, 23-year-old, Andrea Tovar, was second runner up.
- Mittenaere's victory was the first by a French contestant in more than 60 years.**
- The national costume competition won by 24-year-old Myanmar model Htet Htet Htun, who carried a backdrop depicting her country's traditional puppet theatre. At center stage, she stood before the frame and mimicked a stringed puppet to the crowd's delight.
- Judges initially selected a dozen candidates, with a 13th picked through online balloting which drew 100 million votes worldwide.

HOW INDUS VALLEY CIVILISATION COPED WITH CLIMATE CHANGE

The Indus Valley Civilisation underwent a period of climate change about 4,000 years ago, say scientists who suggest that the ancient population in India used a variety of subsistence practices to cope with diverse environments. Researchers from the University of Cambridge in the United Kingdom and Banaras Hindu University in Uttar Pradesh worked in northwest India between 2007 and 2014. They studied the dynamics of adaptation and resilience in the face of a diverse and varied environmental context, using the case study of the Indus Civilisation (3000 BC—1300 BC). They looked at how Indus populations in north-west India interacted with their environment, and considered how that environment changed during periods of climate change.

Water is of the essence

- For most ancient complex societies, water was a critical factor, and the availability of water and the way that it was managed and used provide critical insight into human adaptation and the resilience of subsistence practices.
- Most early complex societies developed in regions where the climatic parameters faced by ancient subsistence farmers were varied, but not especially diverse.
- Researchers showed that this region was subject to climate change during the period when the Indus Civilisation was at its height (2500 BC—1900 BC).
- The civilisation provides a unique opportunity to study how an ancient society coped with diverse and varied ecologies and change in environmental parameters.
- The Indus Civilisation was situated close to a deep lake Kotla Dahar, which would have been primarily monsoonal.
- The lake showed evidence for two dramatic decreases in monsoon rainfall and a progressive lowering of the lake level.
- The second of these shows Kotla Dahar becoming ephemeral during 2200-2000 BC as a result of an abrupt weakening of the monsoon, which is visible in speleothem records in Oman and northeast India.

Climate and deurbanisation

- The proximity of the Kotla Dahar record to the area occupied by Indus populations shows

that climate must be formally considered as a contributing parameter in the process of Indus deurbanisation, at least in the context of the plains of northwest India.

2. It has long been hypothesised that there was variation in the subsistence practices used by Indus populations and this fits with the theme of coping with diverse environments.
3. This evidence suggests that local Indus populations were already well adapted to living in varied and variable environmental conditions before the development of urban centres.

INDIA RANKS 4TH IN WIND POWER INSTALLATION

India has attained the fourth position globally in installed wind power capacity after China, US and Germany as a result of various steps in the "right" direction, the Economic Survey said. With the legal framework in place for the International Solar Alliance (ISA), the brainchild of Prime Minister Narendra Modi and launched during the UN climate summit in Paris, ISA will be a "major" international body headquartered in India.

What

1. As a result of various actions in the right direction, India attained 4th position in global wind power installed capacity after China, USA and Germany. Currently, India's renewable energy sector is undergoing transformation with a target of 175 GW of renewable energy capacity to be reached by 2022. In order to achieve the target, the major programmes on implementation of Solar Park, Solar Defence Scheme, Solar scheme for Central Public Sector Undertakings, Solar photovoltaic (SPV) power plants on canal bank and canal tops, solar pump, solar rooftop among others have been launched in recent years.
2. A capacity addition of 14.30 GW of renewable energy has been reported during the last two and half years under Grid Connected Renewable Power, which include 5.8 GW from Solar Power, 7.04 GW from Wind Power, 0.53 GW from Small Hydro Power and 0.93 GW from Bio-power. As on October 31, 2016, India achieved 46.3 GW grid-interactive power capacity, 7.5 GW of grid-connected power generation capacity in renewable energy, and small hydro power capacity of 4.3 GW.
3. In addition, 92,305 solar pumps were installed and Rs 38,000 crore worth of Green Energy Corridor is being set up to ensure evacuation of renewable energy. With India's initiative, ISA envisaged as a coalition of solar resource-rich countries to address their special energy needs, will provide a platform to collaborate on addressing the identified gaps through a common and agreed approach.
4. 24 countries have signed the Framework Agreement of ISA after it was opened for signature on November 15, 2016. ISA is expected to become inter-governmental treaty-based organization that will be registered under Article 102 of the UN charter after 15 countries ratify the Agreement. With legal framework in place, ISA will be a major international body headquartered in India.
5. The survey pointed out that the government has established the National Adaptation Fund for Climate Change to assist states and UTs to undertake projects for adaptation to climate change. Rs 182.3 crore has been released for 18 projects for sectors including agriculture and animal husbandry, water resources, coastal areas, biodiversity and ecosystem services.
6. India is also one of the few countries in the world to impose a tax on coal. This coal cess which has been renamed as 'Clean Environment Cess' in the Union Budget 2016-17 funds the National Clean Environment Fund (NCEF). The Clean Environment Cess has been doubled in the 2016-17 budget from Rs 200 per tonne to Rs 400 per tonne.
7. It has the provision of bundling of renewable power with power from plants whose Power Purchase Agreements have expired or completed their useful life, no inter-state transmission charges for solar and wind power and procurement of 100 per cent power produced from waste-to-energy plants, among others. India ratified the Paris Agreement on October 2 last year and the country's comprehensive target is to lower the emissions intensity of GDP by 33 to 35 per cent by 2030 from 2005 levels.
8. It also targets to increase the share of non-fossil fuels based power generation capacity to 40 per cent of installed electric power capacity by 2030 and to create an additional (cumulative) carbon sink of 2.5-3 Gt CO₂ e through additional forest and tree cover by 2030.

FIRST NATIONAL ENTREPRENEURSHIP AWARDS 2016

Home Minister Shri Rajnath Singh presented the First National Entrepreneurship awards 2016

in New Delhi. The Minister of State (I/C) for Skill Development and Entrepreneurship Shri Rajiv Pratap Rudy was the guest of honour on the occasion. The awards have been presented in order to recognise the **entrepreneurial spirit of India's youth and encourage more young Indians to become entrepreneurs.**

What

1. The Entrepreneurship Awards system has been created through a partnership between MSDE and a number of reputed institutions across the country including, Indian Institute of Technology (IIT - Delhi, Mumbai, Kanpur and Chennai), Tata Institute of Social Sciences (TISS), Mumbai and XLRI, Jamshedpur. Every year, one such institution will play the role of the lead institution to anchor the awards. For 2016-2017, the lead institution is IIT, Delhi.
2. Awards were presented in 11 categories under two selection tracks – Award Track and Recognition Track. These winners have been selected through a three stage rigorous selection process.

An overview of the winners in these categories

1. Agri, Food, & Forestry Products - Wow Momo Foods Private Ltd
2. Chemicals, Pharma, Bio and other processed material - Saral Design Solutions Private Limited
3. E-commerce, Logistics, Transport & other Services - JETSETGO Aviation Services
4. Engineering Services - Swadha Energies
5. IT & ITES, Financial - Lucideus Tech
6. SC/ST - JeevAnksh Eco Products Private Limited
7. Women - S V Engineering and Consultancy Services

Under recognition track, Awards were presented under for categories

1. Education institute - RSETI, Karnataka
2. Incubator - TREC-STEP Tiruchirappalli Regional Engineering College- Science and Technology Entrepreneurs Park
3. Mentor (Government Sector) – Dr. Harkesh Kumar Mital, Head, National Science & Technology Entrepreneurship Development Board, (NSTEDB), Department of Science & Technology, Govt. of India.
4. Mentor (Private Sector) - Mr. Pradeep Gupta, Chairman, Cyber Media Group