

CURRENT AFFAIRS

13.11.17

1. "KRISHNA RIVER".

ABOUT :

- ✚ The Krishna River is the **fourth-biggest river** in terms of water inflows and river basin area in India, after the Ganga, Godavari and Brahmaputra.
- ✚ It is a major source of irrigation for Maharashtra, Karnataka, Telangana and Andhra Pradesh.
- ✚ The Krishna river originates in the western ghats near **Mahabaleshwar** in the state of Maharashtra.
- ✚ **Sangameswaram** of Kurnool district in Andhra Pradesh is a famous pilgrim center for Hindus where Tungabhadra and Bhavanasi rivers join the Krishna river. The Sangameswaram temple is now drowned in the Srisailem reservoir, and visible for devotees only during summer when the reservoir's water level comes down.
- ✚ Another centre of attraction is the **Krishna Pushkaram fair** which is held once in twelve years on the banks of the Krishna river.

TRIBUTARIES:

LEFTBANK: Bhima, Dindi, Peddavagu, Musi, Paleru, Munneru

RIGHTBANK:

Venna, Koyna, Panchganga, Dudhaganga, Ghataprabha, Malaprabha, Tungabhadra

2. "BHAVANI ISLAND".

- ✚ Bhavani Island situated in the midst of the Krishna River, **at Vijayawada**.
- ✚ It is located at the upstream of Prakasam Barrage and is considered as **one of the largest river islands** in India.
- ✚ **The Kanaka Durga Temple** is the abode of Goddess Durga. She is also known with another name as Bhavani and hence, the island is named Bhavani Island. The island is located in close proximity to the temple.

3. "VITILIGO".

- ✚ Vitiligo is a long term skin condition characterized by patches of the skin losing their pigment. The patches of skin affected become white and usually have sharp margins. The hair from the skin may also become white. Typically both sides of the body are affected. Often the patches begin on areas of skin that are exposed to the sun.
- ✚ It is more noticeable in people with dark skin.
- ✚ Vitiligo may result in psychological stress and those affected may be stigmatized.
- ✚ The cause is typically unknown. It is believed to be due to genetic susceptibility that is triggered by an environmental factor such as. This results in the destruction of skin pigment cells.
- ✚ It is not contagious.
- ✚ There is no known cure for vitiligo.

4. "QUAD GROUP MEETING".

- ✚ The **quadrilateral formation** includes Japan, India, Australia and USA
- ✚ The discussions focussed on cooperation based on their converging vision and values for promotion of peace, stability and prosperity in an increasingly interconnected region that they share with each other and with other partners.
- ✚ They agreed that a free, open, prosperous and inclusive Indo-Pacific region serves the long-term interests of all countries in the region and of the world at large.
- ✚ Indicating the simmering regional tension with China and Beijing's assertiveness over the South China Sea issue, **freedom of navigation** figured at the Quad

5. "GROUP FOSTER CARE ELUDES CHILDREN IN TAMIL NADU".

- ✚ No facilities or finance to implement the model, says Social Defence department

- ✦ Group foster care, an alternative to foster care which helps in de-institutionalising children in need of protection, is yet to take off in the State.
- ✦ Children, who cannot find foster homes, can be put under group foster care. But it is currently not feasible since most child care institutions do not have the facilities or the budget to implement this model.
- ✦ According to the Juvenile Justice Act, 2015, group fostering is a family-like care facility for children, who are without parental support. Under this set-up, a group of children are placed under a woman caretaker and provided with all necessary facilities and support like that of a regular household. The children here are meant to have their own rooms, study material and all the amenities they need. The children also live together as normal siblings do and eventually grow up with a sense of belonging and identity.
- ✦ Child rights experts pointed out that apart from providing family-like care to orphaned or abandoned children, group foster care also helps provide job opportunities and security to single and bereaved women, who can be appointed to look after them.

6. "GO AHEAD WITH EIA FOR MODIKUNTA VAGU PROJECT".

- ✦ The eight-member experts committee of the Union Ministry of Environment, Forest & Climate Change (MoEF) has given its go ahead to the Irrigation Department for taking up **environmental appraisal** for the proposed Modikunta Vagu irrigation project
- ✦ An earthen dam for running for 1,359 meters is proposed to be constructed across Modikunta Vagu, a **tributary of Godavari river**, to store 2.124 tmcft of water for irrigation and drinking needs.

7. "SUPERBUG NDM".

- ✦ New Delhi Metallo-beta-lactamase-1 (NDM-1) is an enzyme that makes bacteria resistant to a broad range of beta-lactam antibiotics. These include the antibiotics of the carbapenem family, which are a mainstay for the treatment of antibiotic-resistant bacterial infections.

- ✚ The gene for NDM-1 is one member of a large gene family that encodes beta-lactamase enzymes called carbapenemases. Bacteria that produce carbapenemases are often referred to in the news media as "superbugs" because infections caused by them are difficult to treat. NDM-1 was first detected in a *Klebsiella pneumoniae* isolate from a Swedish patient of Indian origin in 2008.
- ✚ The most common bacteria that make this enzyme are gram-negative such as *Escherichia coli* and *Klebsiella pneumoniae*, but the gene for NDM-1 can spread from one strain of bacteria to another by horizontal gene transfer.

8. "CPCB".

- ✚ The Central Pollution Control Board (CPCB) of India is a statutory organisation under the Ministry of Environment, Forest and Climate Change (MoEF&CC).
- ✚ It was established under the Water (Prevention and Control of Pollution) Act, 1974. CPCB is also entrusted with the powers and functions under the Air (Prevention and Control of Pollution) Act, 1981.
- ✚ It serves as a field formation and also provides technical services to the Ministry of Environment and Forests under the provisions of the Environment (Protection) Act, 1986.
- ✚ It Co-ordinates the activities of the State Pollution Control Boards by providing technical assistance and guidance and also resolves disputes among them. It is the apex organisation in country in the field of pollution control, as a technical wing of MoEF.
- ✚ The board conducts environmental assessments and research.
- ✚ CPCB along with its counterparts the State Pollution Control Boards (SPCBs) are responsible for implementation of legislation relating to prevention and control of environmental pollution.
- ✚ CPCB runs nationwide programs of ambient air quality monitoring known as National Air Quality Monitoring Programme (NAMP).. Under N.A.M.P., **four** air pollutants viz., Sulphur Dioxide (SO₂), Oxides of Nitrogen as NO₂, Suspended Particulate Matter (SPM) and Respirable Suspended Particulate Matter (RSPM/PM₁₀) have been identified for regular monitoring at all the locations

- ✚ Urban area programs (**EcoCity Program**) : CPCB programs for urban areas, also known as EcoCity Program comes under X Plan to improve environment through implementation of identified environmental improvement projects in the selected towns and cities.
- ✚ CPCB has the responsibility to regulate and control noise producing and generating sources with the objective of maintaining the ambient air quality standards.
- ✚ CPCB in collaboration with concerned SPCBs/PCCs established a nationwide network of water quality monitoring.

9. "AIR QUALITY INDEX".

- ✚ There are **six AQI categories**, namely Good, Satisfactory, Moderately polluted, Poor, Very Poor, and Severe. The proposed AQI will consider **eight pollutants** (PM10, PM2.5, NO2, SO2, CO, O3, NH3, and Pb) for which short-term (up to 24-hourly averaging period) National Ambient Air Quality Standards are prescribed.

AQI	Associated Health Impacts
Good (0–50)	Minimal Impact
Satisfactory (51–100)	May cause minor breathing discomfort to sensitive people.
Moderately polluted (101–200)	May cause breathing discomfort to people with lung disease such as asthma, and discomfort to people with heart disease, children and older adults.
Poor (201–300)	May cause breathing discomfort to people on prolonged exposure, and discomfort to people with heart disease
Very Poor (301–400)	May cause respiratory illness to the people on prolonged exposure. Effect may be more pronounced in people with lung and heart diseases.
Severe (401-500)	May cause respiratory impact even on healthy people, and serious health impacts on people with lung/heart disease. The health impacts may be

experienced even during light physical activity.

10. "SYSTEM OF AIR QUALITY AND WEATHER FORECASTING AND RESEARCH (SAFAR)".

- ✚ SAFAR was introduced by **Union Ministry of Earth Sciences (MoES)** for greater **metropolitan cities** of India to provide location specific information on air quality in near real time.
- ✚ It was **developed by** Indian Institute of Tropical Meteorology (IITM), Pune along with India Meteorological Department (IMD) and National Centre for Medium Range Weather Forecasting (NCMRWF).
- ✚ The main objective of SAFAR project is to increase awareness among general public regarding the air quality.
- ✚ The purpose awareness for general public is to take appropriate mitigation measures and systematic action for betterment of air quality and related health issues.

11. "NGT".

- ✚ The Tribunal has Original Jurisdiction on matters of "**substantial question relating to environment**"
- ✚ National Green Tribunal Act, 2010 (NGT) is an Act of the Parliament of India which enables creation of a special tribunal to handle the expeditious disposal of the cases pertaining to environmental issues. It draws inspiration from the India's constitutional provision of Article 21, which assures the citizens of India the right to a healthy environment.
- ✚ The tribunal shall consist of a **full time chairperson, judicial members and expert members**. The minimum number of judicial and expert member prescribed is **ten** in each category and maximum number is **twenty** in each category. Another important provision included in the law is that the chairperson, if find necessary, may invite any person or more person having specialized knowledge and experience in a particular case before the tribunal to assist the same in that case.

- ✚ A judge of the Supreme Court of India or Chief Justice of High Court are eligible to be **Chairperson** or judicial member of the Tribunal. Even existing or retired judge of High Court is qualified to be appointed as a Judicial Member.
- ✚ A person is qualified to be an expert member if he has Master of Science with a Doctorate degree or Master of Engineering or Master of Technology and has an experience of fifteen years in the relevant field including five years practical experiences in the field of environment and forests in a reputed National level institutions. Anyone who has administrative experience of fifteen years including experience of five years in dealing with environment matters in the Central Government or a State Government or in National or State level institution is also eligible to be an expert member.

12. "REVIEW PETITION".

- ✚ In India, a binding decision of the Supreme Court/High Court can be reviewed in Review Petition. The parties aggrieved on any order of the Supreme Court on any apparent error can file a review petition. Taking into consideration the principle of stare decisis, courts generally do not unsettle a decision, without a strong case. This provision regarding review is an exemption to the legal principle of stare decisis.
- ✚ Article 137 of the Constitution provides that subject to provisions of any law and rule made under Article 145 the Supreme Court of India has the power to review any judgement pronounced (or order made) by it. Under Supreme Court Rules, 1966 such a petition needs to be filed within 30 days from the date of judgement or order. It is also recommended that the petition should be circulated **without oral arguments** to the **same bench of judges** that delivered the judgement (or order) sought to be reviewed.
- ✚ Furthermore, even after dismissal of a review petition, the SC may consider a **curative petition** in order to prevent abuse of its process and to cure gross miscarriage of justice.

13. "NEARLY 100 KERALITES MAY HAVE JOINED ISIS, SAY POLICE".

- ✚ About 100 Keralites are suspected to have joined the Islamic State over the years. The Kerala Police has collected evidence in this regard, including over 300 voice clips and messages from WhatsApp, telegram messaging applications and other social media platforms.

14. "CHINA'S BUILD-UP OF 'AIR SURVEILANCE AND DOMINATION PROJECTS' IN THE REGION ALSO LIKELY TO COME UP FOR DISCUSSION".

- ✚ The maritime dispute over the South China Sea, exodus of the Rohingya citizens of Myanmar into Bangladesh and India, North Korean nuclear posturing and Islamic State-linked terrorism are likely to be the key talking points at the 31st **ASEAN summit**
- ✚ ASEAN has been battling with the task of framing a Code of Conduct (CoC) for the common maritime future. Dhaka expected ASEAN to raise the issue in a prominent way and convince Myanmar to stop the atrocities against the Rohingya.
- ✚ The presence of the pro-Islamic State militants in the Marawi city in southern Philippines is also expected to receive attention as the fight with the militants has been a major domestic issue of the Philippines. The developments in Marawi have also emerged as a reason for it to seek international support.

ASEAN :



- ✚ The Association of Southeast Asian Nations is a regional intergovernmental organisation comprising **ten members**.
- ✚ Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Viet Nam.
- ✚ ASEAN promotes Pan-Asianism and intergovernmental cooperation and facilitates economic, political, military, educational and cultural integration amongst its members and Asian states.
- ✚ The 'ASEAN Way' refers to a methodology or approach to solving issues that respects the cultural norms of Southeast Asia.

ARTICLES TO READ

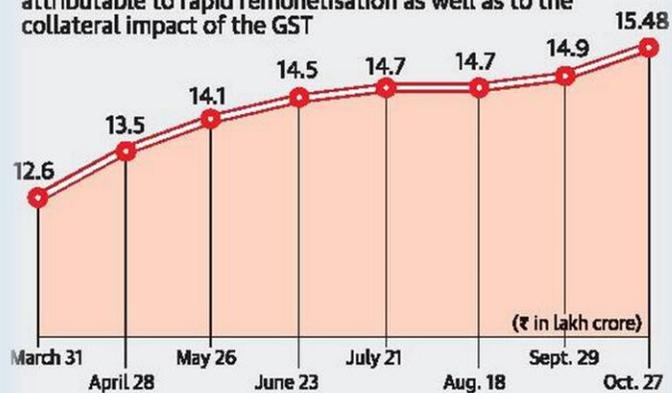
15. "CURRENCY IN PUBLIC HANDS SURGES".

- ✚ Growth in bank deposits slows to levels seen prior to demonetization.

- ✚ Rapid remonetisation, coupled with the introduction of the Goods and Services Tax, may have reversed some of the progress made towards a less cash economy — one of the objectives of the demonetisation exercise of last year. Currency in the hands of the public registered a robust growth after the new tax system was rolled out in July.

The rise and rise of cash

Currency in the hands of the public has increased, attributable to rapid remonetisation as well as to the collateral impact of the GST



Source: RBI

- ✚ According to data from the Reserve Bank of India, currency with the public, which was growing at 14.7% on a year-to-date basis till June, gained momentum from July — the month when GST was introduced. Between March 31 and October 27, currency in the hands of the public grew 22.5% as compared with 6.6% a year

earlier. The data shows currency with the public was Rs. 12.64 lakh crore at the end of March and had grown to Rs. 15.48 lakh crore as on October 27.

- ✚ The rapid pace of remonetisation was cited as one of the main reason for the growth in cash with the public. Also, economists said the GST roll-out could be another reason as small traders are now holding more cash.

'Traders hold more cash'

- ✚ "Now, with the process of remonetisation almost complete, transaction demand for cash has returned.
- ✚ Increased cash withdrawals from the banking system is impacting deposit growth adversely. Also, due to GST implementation, it seems several small businesses have returned to the cash economy. This too might have impacted the overall deposit growth.
- ✚ Deposit growth in banks was 9.2% till October 27 — exactly the same level as last year. Following the withdrawal of Rs. 500 and Rs. 1,000 notes, there was a surge in deposit growth, which went up to 14.7% in January. On the other hand, Credit growth, which dipped to 5% in January, improved to 7.2% year-on-year till October 27, though still below the 8.7% growth seen in October 2016.
- ✚ As remonetisation is taking place, people have increased cash holdings which is reflected in 'currency with the public' component of RBI data. The 10% difference in currency in circulation as of date and last year will continue into November when demonetisation was introduced this can be interpreted as being the surplus funds with households over and above what is held traditionally, which has found their way into deposits.
- ✚ RBI data shows currency in circulation was Rs. 16.35 lakh crore on November 3, this year compared with Rs. 17.94 lakh crore on November 4 last year, just before demonetisation was announced. So, about 90% of the currency of the pre-demonetisation levels has come back into circulation.

16. "WHAT HUMANS DO, COBOTS CAN TOO".

- ✚ Collaborative bots not only complement human effort, but also help when labour is hard to come by

- ✦ Evil. Anti-worker. Job thieves. These are popular epithets to robots in a populous and labour-surplus country such as India.
- ✦ But if robots complement human effort and help free up labour for deployment elsewhere, then the conversation takes a different turn. Small, collaborative robots, or cobots, are gaining currency across the world, as also in India. Several firms, be it Bajaj Auto or Aurolab, have benefited from the adoption of cobots and are planning to add more to their shop floors. And, no one is complaining.
- ✦ Aurolab's is a case in point. The Madurai-based company makes intraocular lenses. Earlier, the lenses were made by women staff, above the age of 18. They helped make 150 lenses a day but today, using cobots, the firm makes 10,000 lenses a day. Now, the company exports to 150 countries. Headcount has also risen from 15 to 700.
- ✦ The pricing, quality and productivity of the lenses are so good that the others are importing it and I think this kind of story can be replicated with many other industries.

WHAT IS A COBOT?

- ✦ A cobot is intended to work hand-in-hand with humans in a shared workspace. This is in contrast with full-fledged robots that are designed to operate autonomously or with limited guidance. They support and relieve the human operator of his excess work.
- ✦ In an auto factory, while the the cobot tightens the bolts, the human worker places the tools in front of the cobot. In a biscuit factory, the cobot would package the biscuits while the worker segregates burnt ones not fit for consumption. In a small-scale industry, the cobot is placed on the drilling job while the worker performs a quality check.
- ✦ It's a phenomenal success story in India where cobots are creating jobs and making small businesses competitive. Universal Robots of Denmark was the first to develop cobots commercially, and the first units were sold in 2008. Collaborative robots are 'completely' different from traditional robots, "Cobots are easy to use, flexible and safe." Unlike industrial robots, cobots don't need fencing for the protection of workers in the shop floor.
- ✦ The automotive sector is a large adopter of cobots. The global electronics industry is also an adopter. Industry watchers felt that manufacturing cannot be competitive without the extensive use of industrial robots.

- ✚ Manufacturing is a capital-intensive sector and the idea that it can be used to create a lot of low- or medium-skilled but well-paid jobs, as it did in past centuries, is obsolete. Intelligent use of robots. This meant, that the relevant question was not whether the deployment of robots is advisable, or whether robots will help or hurt the effort to 'Make in India'. "The question should be: how can we best create a modern, robot-using manufacturing ecosystem in India
- ✚ If we continue to be just importers and end-users, and not designers, developers and builders of robots, then robot deployment will be disastrous for the economy, since we will lose many old-industry jobs, and the new, advanced technology jobs will be created elsewhere. That is why, instead of engaging in sterile debates about the advisability of high technology, we must move to develop capabilities in advanced areas such as robotics, artificial intelligence, machine learning and automation,
- ✚ Globally, 110,000 robots worth about \$40 billion were shipped last year. The collaborative robot market is about \$1 billion-\$4 billion.
- ✚ Universal Robots, which has 50-60% market share in cobots globally, has so far sold 18,500 units, including more than 300 in India.
- ✚ It is estimated that a little less than 40,000 cobots have been deployed all over the world. Big names that have entered into this field include Epson and ABB. There are about 30-40 players in this market.
- ✚ The adoption has been low in India compared with China and the developed world. For every cobot sold in India, 30 are sold in China.
- ✚ Bolstering productivity with the deployment of cobots, almost 80% of downtime gets eliminated, as per estimates. In other words, productivity gains are significant.
- ✚ Some SMEs now prefer to place a cobot in key functions and use human labour to feed in information and get the basic work done.
- ✚ The first cobot arrived in India in 2011 when Bajaj Auto decided to deploy one at its shop floor. Next year the auto firm bought 23 units; it now has a total of 150 cobots. Mahindra & Mahindra has recently bought its first few cobots.
- ✚ Packing industries and textile companies too use cobots. Cobots are getting into healthcare as well. They work as chefs in the U.S., making burger patties. In

Singapore, cobots have been used to make building tiles. Cobots can be also used to paint the sides of the buildings.

- ✦ Cobots are simple to use. One could programme a cobot in 40 minutes. For this, one don't need to have a technical background. Safety is an important aspect of collaborative work and cobots score high there.
- ✦ They are flexible and can be used just as a tool. In other words, use of cobots helps avoid overplaying the role of a robot which tends to dominate the workflow, relegating human contribution to the background.
- ✦ Several governments around the world are encouraging automation to spur economic growth. China, for example, is offering subsidies to make cobots affordable. Several universities are spending significantly on research and development to facilitate human-robot collaboration in next generation manufacturing.

17. "JUSTICE INTUMULT: ON THE TURMOIL IN SUPREME COURT".

- ✦ The turmoil will end only with a full, fair probe into the alleged plot to influence judges.
- ✦ There is absolutely no doubt that the Chief Justice of India is the master of the roster. So, it is impossible to dispute the legal reasoning behind Chief Justice Dipak Misra's ruling that no one but he can decide the composition of Benches and allocation of judicial work in the Supreme Court. However, the circumstances in which he had to assert this authority have the potential to greatly diminish the court's lustre.
- ✦ The scenes witnessed in the court amidst troubling allegations of possible judicial corruption are worrisome for their capacity to undermine the high esteem that the judiciary enjoys. Chief Justice Misra chose to stick to the letter of the law, but there remain troublesome questions about potential conflict of interest in his decision to overrule Justice J. Chelameswar's extremely unusual order that delineated the composition of a Constitution Bench to hear a writ petition seeking a fair probe into the corruption allegations.
- ✦ It is a fact that in the Prasad Education Trust case, the petitions alleging that some individuals, including a retired Orissa High Court judge, were plotting to influence the Supreme Court, had been heard by a Bench headed by Chief Justice Misra. However, it would be perverse and irresponsible to attribute corrupt motives

without compelling evidence. At the same time, by heading the Bench himself, the Chief Justice may have contributed to the perception that he will preside over a hearing in his own cause, rather than leaving it to another set of judges to reiterate the legal position on who has the sole say in deciding the roster.

- ✚ Justice Chelameswar, the senior-most puisne **judge**, may have passed his order based on the petitioner's claim that there would be a conflict of interest were the Chief Justice to choose the Bench. But in doing so, he chose to ignore the principle that allocation of judicial work is the preserve of the Chief Justice. Both justices may have found themselves in a situation in which law and strict propriety do not converge.
- ✚ As for the lawyer-activists involved, it is one thing to flag corruption, another to foster the impression that they want to choose the judges who will hear them. The only way to end the current turmoil in the judicial and legal fraternity is to ensure that the Central Bureau of Investigation holds an impartial probe in the case registered by it.
- ✚ The involvement of serving judges may only be a remote possibility, but it is vital to find out whether the suspected middlemen had any access to them. An unfortunate fallout of the controversy is the perception of a rift among the country's top judges. To some, the charges may represent an attempt to undermine the judiciary.
- ✚ These perceptions should not result in the sidestepping of the real issue raised by the CBI's FIR: the grim possibility of the judiciary being susceptible to corruption. Tumult and turmoil should not overshadow this substantive issue.

18. " HIT REFRESH: ON THE SLASHED GST RATES "

- ✚ The GST Council rationalises the tax regime further, but simplicity is still not within grasp.
- ✚ The script was altered for the second time in two months but with far greater impact. Soon after Prime Minister Narendra Modi promised far-reaching changes to simplify the goods and services tax regime, especially for small businesses and consumers, the GST Council delivered some relief measures on Friday.
- ✚ At its meeting in Guwahati, the Council lowered the tax rates on over 200 products, compared to 27 items in its previous meeting and about 100 tweaks since GST rates were finalised in May. Over 1,200 products and services had been placed in five tax

brackets — 0%, 5%, 12%, 18% and 28%. That those rates no longer hold for about a quarter of those items, and the highest tax bracket is left with just 50 products, compared to more than 250 in July, is a tacit admission that the initial rates were worked out in a hurry with maximising revenue being the prime consideration. Similarly, the ambit of the Composition Scheme for small businesses has been expanded twice — from an initial turnover threshold of RS.75 lakh per year to Rs.1 crore (in October), and now further to Rs.1.5 crore.

- ✚ This would require a change in the GST laws, so it may take some time to kick in. There should be no doubt that all the course corrections currently under way to ease the transition to GST are more than welcome — and the government will be hoping these ‘people-friendly’ changes will not only spur consumption but also boost compliance.
- ✚ But the transmission of lower rates may take time as it could be two-three months before existing inventory in the market is replaced with freshly priced products. With returns for the first month of the tax yet to be filed by all registered taxpayers and less than three months to go till the presentation of the Union Budget, Finance Ministry mandarins face a unique challenge on revenue visibility.
- ✚ In the interest of the exchequer and the taxpayer, whatever other improvements the GST needs must be implemented at the earliest — whether they are stuck because of a lack of consensus (letting inter-State suppliers avail of the Composition Scheme), poor implementation (the GST Network) or simply the lack of bandwidth to think through. The Opposition has criticised the latest reboot of the GST as a Gujarat campaign effect.
- ✚ While that rang truer in October when rates for popular snacks in the State were lowered, many decisions remain curious. Cement is taxed at 28%, but granite and marble have been lowered to the 18% bracket. Instead of a tactfully designed One Nation, One Tax system, the GST should not degenerate into a tool to please constituencies. The Council must institute a transparent system with an explicit rationale for any rate changes in the future. Only then can business and retail find predictability in the GST, rather than be wistful for a time when indirect tax rates were reviewed once a year in the annual Budget instead of every month.

19. "WHY ABBA MUST GO: ON AADHAAR".

- ✚ Aadhaar-based Biometric Authentication (ABBA) does nothing in the battle against graft — there are better alternatives. In a sickening way, October 2017 was like

October 2002. Fifteen years ago, in Rajasthan's Baran and Udaipur districts, there was a spate of starvation deaths. The government of the time made up fanciful stories to deny that the deaths had anything to do with hunger or government failure.

- ✚ In October 2017, the death of an 11-year-old Dalit child, Santoshi Kumari, of Jharkhand, was widely reported. She had been pleading with her mother to give her rice as she slipped into unconsciousness and lost her life. The government insists that she had malaria but in video testimonies, her mother, Koyli Devi, says she had no fever. After Santoshi's death, more hunger deaths have been reported, of which at least one, Ruplal Marandi, is related to the government's Aadhaar experiment.
- ✚ The starvation deaths in 2002 became the springboard for positive action on many fronts, which included the passing of judicial orders and even political action. Since then, there has been a perceptible improvement in programmes of social support including, but not limited to, the Public Distribution System (PDS). In Baran, it led to a recognition of the vulnerability of the Sahariyas — a tribal community in Baran — and a special PDS package consisting of free pulses and ghee being announced.
- ✚ Similar action is required today. Instead, the government remains in denial. The Food Ministry in Delhi issued an order in late October that is silent on the crucial issue of reinstating wrongly cancelled ration cards and makes token concessions (with no guarantee of implementation).

Targets and the reality

- ✚ For months, the Central government has been insisting on 100% Aadhaar "seeding" across schemes such as the PDS, Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and pensions. Seeding refers to the practice of entering Aadhaar numbers for each household member on the ration card. It is a prerequisite for the Aadhaar-based Biometric Authentication (ABBA) system, the practice of using an electronic point of sale (PoS) machine to authenticate each transaction. The government has made seeding and the ABBA mandatory in the PDS. As explained below, the distinction between seeding and the ABBA is important.
- ✚ In their zeal to achieve 100% Aadhaar-seeding targets, some field functionaries just deleted the names of those who did not submit Aadhaar details. Others waited till the deadline and then struck off names. The government claims that all of these were "fake", detected due to Aadhaar, thus saving crores of rupees. Santoshi's family was one such example. According to the State Food Minister, their ration card was cancelled in July because they failed to seed it with Aadhaar. Exclusions are not

savings .Some people blame the aggrieved for failing to seed Aadhaar. But many of them are unaware of the seeding requirement. When pensions in Jharkhand suddenly stopped for many pensioners, they had no idea why. No one had told them about Aadhaar. In some cases, the middlemen had seeded it wrongly. Others still had tried repeatedly and failed. Seeding is not as simple as it sounds.

- ✦ Seeding is just one of the many barriers that the ABBA has created in the smooth functioning of the PDS. The ABBA requires that family members be enrolled for Aadhaar and correct seeding. At the time of purchase, the ABBA requires power supply, a functional PoS machine, mobile and Internet connectivity, State and Central Identities Data Repository (CIDR) servers to be 'up', and for fingerprint authentication to be successful.
- ✦ Ruplal Marandi's family passed the first two hurdles, enrolment and seeding, but was tripped at the last stage by the ABBA. For no fault of his own, the Marandi family was excluded from the PDS. His daughter told journalists that he had died of hunger as the family could not collect rations because of a biometric mismatch at the PDS shop.
- ✦ There is enough evidence to show that the ABBA does not work. The Finance Ministry's latest Economic Survey, based on micro-studies, reports high biometric failure rates.
- ✦ In Rajasthan, government data for the past year show that around 70% of cardholders are able to use the system successfully. The rest have either been tripped up by one of the ABBA hurdles or, less likely, they did not attempt to buy PDS grain. In Andhra Pradesh and Telangana, the ABBA's poster child States, it is used to disburse MGNREGA wages and pensions: biometric failure rates are between 8 and 14%. In some months, one in four pensioners returns empty-handed.

A case against ABBA

- ✦ What most people don't realise is that the ABBA has no role in reducing corruption. If the ABBA helps reduce corruption, it might be worth fixing these failures. Quantity fraud is the practice of cheating on quantities sold. Neither seeding nor the ABBA can stop quantity fraud. In a survey in Jharkhand, dealers continue to swindle people by cutting up to a kg of their grain entitlement despite successful ABBA authentication. Identity fraud, for example in the form of duplicate ration cards, only requires Aadhaar-seeding; the ABBA is unnecessary. Two caveats on seeding: it can be foolproof against identity fraud only in a universal system. More seriously, it raises privacy issues. Further, in Aadhaar's rulebook for example, an elderly person

asking a neighbour to fetch their grain would count as identity fraud. In fact, it is flexibility that is lost when the ABBA is made mandatory. Thus, each month, people are being forced to cross five meaningless hurdles in the form of electricity, functional PoS, connectivity, servers and fingerprint authentication in order to have access to their ration. Failing any one hurdle even once causes anxiety in subsequent months. Think of the ATM running out of cash, post-demonetisation, just when it was your turn. The resultant anxiety defeats the very purpose of such forms of social support. Failure in consecutive months leads to people giving up entirely. They stop trying. States such as Rajasthan were planning to treat such households as dead or non-existent.

- ✚ The ABBA must be withdrawn immediately from the PDS and pensions in favour of alternative technologies such as smart cards. This will allow us to keep the baby (offline PoS machines with smart cards) and throw out the bathwater (Internet dependence and biometric authentication).
- ✚ If the government continues to insist on the ABBA, there is only one conclusion that can be drawn. That it is actively trying to sabotage the PDS, which, quite literally, is a lifeline for the poor.

20. "THE AI BATTLEFIELD".

- ✚ We need global norms to address the rise of machine autonomy in armed conflict.
- ✚ In the Mahabharata, Krishna wielded what would today be called a lethal autonomous weapon: the *Sudarshana Chakra* would track its target to the ends of the earth, eliminate it and return to its owner. Such machines could soon be made for real. On November 13, a United Nations (UN) group of experts in Geneva kicks off the first formal inter-governmental discussion on what machine autonomy means for the laws of armed conflict and the future of international security. I have the honour to chair this group, on behalf of 125 states party to the Convention on Certain Conventional Weapons. Krishna, being a god, had the wisdom not to deploy his awesome weapon — at least, not directly. He used it to block out the sun, which tricked opposing warriors into dropping their protective shield. Ancient India had rules of war, just as we do: they required fighting to cease at sunset.
- ✚ Throughout history, the capacity to wield new technologies — from gunpowder to nuclear weapons to long-range missiles — has changed how wars are fought, and the strategic balance between attack and **defence** maintained.

Shaped by technology

- ✚ The norms around what is considered acceptable in warfare have also evolved in response to new technologies. Since the 19th century, those norms have been codified in international humanitarian law, which is more or less universally accepted as regulating armed conflict among civilised nations.
- ✚ Recent advances in artificial intelligence (AI) are throwing up a new challenge to these norms: if the weapon fuses with the wielder, who do they apply to and how? Should such a possibility even be allowed?
- ✚ Reality might not have yet caught up with popular culture depictions of “killer robots” and “conscious synths” demanding their rightful place in society; indeed, such depictions can be a distraction from the complex challenges that do exist. But many technology leaders are worried about autonomous systems taking life-and-death decisions without “meaningful human supervision or control”. The American tech billionaire Elon Musk and over 100 others recently signed a letter warning that the weaponisation of AI-based technologies risks opening a Pandora’s box.
- ✚ These are not the only concerns about AI. Technologists and ethicists are also grappling with such questions as legal liability when autonomous vehicles share the streets with pedestrians, predictive analytics subverting due process, and the algorithmic entrenchment of human biases.

Walking a tightrope

- ✚ But AI applications are already a growing reality in areas such as health, finance and retail. Civilian applications of AI technologies will undoubtedly continue apace. And as has been the experience with other dual-use technologies, AI developed for civilian purposes could be repurposed. How, then, to deliver on the promise of AI while protecting the hard-won tenets of international humanitarian law and respecting the legitimate security and commercial interests of states and industry? This is the question we will be grappling with this week in Geneva.
- ✚ Mr. Musk’s letter called on the UN to “find a way to protect us from all these dangers”. Some will query if the UN can succeed. The multilateral system is often derided for its slow pace, its obsession with procedure and its opacity to the wider public. In many areas of technological complexity, alternative governance models have emerged, such as the ‘multi-stakeholder’ approach to Internet governance.

A new approach

- ✦ However, in an era of diffusion of power and mistrust among the major powers, multilateral inter-governmental forums remain the only way to extend norms across the globe. For bad or for worse, governments still decide matters of war and peace. And the UN still offers a neutral venue to bring different points of view together.
- ✦ The discussions in Geneva are an opportunity to test a new approach, one we might call 'distributed technology governance'. This means the multilateral system's search for durable international norms needs to integrate national regulatory approaches and industry self-regulation.
- ✦ Each level in this chain of subsidiarity — international humanitarian law, national regulations, and industry self-regulation — needs to move in full cognition of the other two. We need to find ways for them to enjoy their respective sovereignty, while working in unison to deliver what the international community expects.
- ✦ When Alan Turing, the British scientist who can rightfully be called the father of AI, first speculated on the promise of thinking machines, he pointed out their potential for making us think about ourselves — our faults, frailties and foibles. Aspiring to the wisdom of Krishna may be expecting too much, but we should welcome the fact that AI challenges us to learn in new ways about ourselves as individual sentient beings — and as nations and societies increasingly brought together in an interconnected globe.

21. "CONTOURS OF A COUNTER-BRI".

- ✦ India is **being pulled into alliances to counter China's connectivity initiatives**. It should not rush into them.
- ✦ India finds itself at a crossroads of grand alliances unfolding in the Indian Ocean Region. While one axis is a maritime one across the Indo-Pacific, the other is land-based, extending from Afghanistan into Southeast Asia. Interestingly, both are intended to act as a check on China's growing clout.
- ✦ foreign ministry officials from India, Australia, Japan and the U.S. held discussions on the sidelines of the East Asia summit in Manila in the Philippines and discussed peace and stability in the region in addition to addressing common challenges.
- ✦ The discussions focussed on cooperation based on their converging vision and values for promotion of peace, stability and prosperity in an increasingly inter-

connected region that they share with each other and with other partners. They agreed that a free, open, prosperous and inclusive Indo-Pacific region serves the long-term interests of all countries in the region and of the world at large,” a statement from the Ministry of External Affairs said while reiterating that India’s Act East Policy was the “cornerstone of its engagement in the Indo-Pacific region”.

- ✚ Of late, the U.S. has been more vocal in its desire to include Australia in the India-Japan-U.S. security cooperation in the Indian Ocean Region, referred to as the “quad” — a **quadrilateral alliance** of “like-minded” countries. Taking it a step further, Japanese Foreign Minister Taro Kono has called for the inclusion of France and Germany. Against this backdrop, the prospect of quadrilateral discussions in Manila have generated considerable global interest on the possible outcome which China hoped “would not target or damage” a “third party’s interest.” Prime Minister Narendra Modi’s meetings during his visit there will be watched closely.
- ✚ While the quad still remains an idea, and it has to be seen what shape it takes, the diplomatic discussions in the national capital over the last few weeks and the statements by world leaders in the run-up to some recent high-level visits to India show distinct contours of a **counter-alliance to China’s Belt and Road Initiative (BRI)**, also called One Belt, One Road, taking shape. The arc extends from Afghanistan on India’s west all across the Northeast and into Myanmar and the Southeast Asian countries.
- ✚ Various strands of this are already under way. India has been trying to build connectivity under various initiatives in its own Northeast region, in its neighbouring countries, and further into ASEAN (the Association of Southeast Asian Nations). Now the U.S. has begun investing in India’s periphery, and Japan is attempting to align its own development initiatives to improve connectivity in the region with India’s Act East policy. The broader attempt is to institutionalise this into a structured trilateral format, and possibly a quadrilateral one at a later stage.
- ✚ Last month, ahead of his visit to India, while delivering a speech at the Centre for Strategic and International Studies in Washington, U.S. Secretary of State Rex Tillerson expressed the need to collaborate with India to ensure peace and stability in the Indo-Pacific so that it “does not become a region of disorder, conflict, and predatory economics.”
- ✚ Elaborating on the predatory economics, Mr. Tillerson said there are a “number of fledgling democracies for infrastructure investment” and stressed on the need to have alternative means of developing them. He referred to China’s investment

model, saying, “the financing mechanisms it brings to many of these countries [results] in saddling them with enormous levels of debt.”

- ✚ Mr. Tillerson further said, “We think it’s important that we begin to develop some means of countering that with alternative financing measures, financing structures” and added that they began a “quiet conversation” during the East Asia ministerial summit in August to create “alternative financing mechanisms” in a multilateral way.
- ✚ In September, the U.S. signed a \$500 million agreement with Nepal to build infrastructure for the latter’s electricity and transportation needs and to promote “more trade linkages with partners in the region like India.” Earlier, U.S. Secretary of Defence James Mattis had endorsed India’s sovereignty concerns surrounding the BRI.
- ✚ Speaking at a think tank in New Delhi last month, Foreign Secretary S. Jaishankar endorsed the U.S. investment in Nepal. Stating that India cannot be in denial of other players coming into the region, he said: “I think an intelligent nation harnesses the changes and sees what works for you. To the extent we have countries whose broad goals are aligned with us.” India and Japan are also cooperating on a project for LNG (liquefied natural gas) supplies to Sri Lanka in addition to aligning their connectivity projects in Africa under the proposed ‘Asia Africa Growth Corridor’.
- ✚ The broad mechanism is akin to China’s own build-up of the BRI initiative. China spent over a decade building capacities independently in its areas of interest — for instance, it built a series of dual-use facilities across the Indian Ocean surrounding India which is popularly referred to as its ‘string of pearls’ strategy. All such efforts have now been consolidated under its grandiose idea of BRI, bringing legitimacy to them and succeeding in getting the global community on board with offers of lucrative investments and long-term returns.

Time for caution

- ✚ While cooperative mechanisms are crucial to maintain stability in the Indian Ocean Region, it would be prudent on India’s part to do a cost-benefit analysis of building such grand alliances in such uncertain times, especially on the role of the U.S. with President Donald Trump at the helm. One of the agreements reached between Mr. Trump and his Chinese counterpart Xi Jinping was China’s Silk Road Fund, under the People’s Bank of China, to promote the Belt and Road international trade initiative. This shows the dichotomy in American policy, and India should exercise caution

before jumping on to the bandwagon. It must await policy clarity from the U.S. both on Afghanistan and beyond.

- ✦ On the other hand, Russia has asked India to join its International North-South Transport Corridor, arguing that it would be a gateway for India to connect with Central Asia through Chabahar port in Iran and via Afghanistan.
- ✦ While India has objections to the BRI, it wouldn't be ideal to bracket the country in a counter camp, but rather it should balance its outreach in accordance to national interests and its own terms. After all, the very countries which are pushing India into alliances are deeply intertwined with China in terms of trade. Excessive dependence on multilateral frameworks to fulfil national objectives may seem lucrative in the short term but could prove to be a costly mistake in the long term and comprise Indian sovereignty.