



## INDIAN POLITY

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**INDIAN POLITY****1. SC's clarification on Aadhaar gives space for reforms****Supreme Court ruling:**

- No beneficiary of a welfare scheme shall be denied benefits due to want of an Aadhaar number.
- The government is free to "press" for Aadhaar for 'non-welfare' transactions or activities.
- These include filing income tax returns, opening bank accounts or getting a mobile phone connection.
- In its order in October 2015 the court made it clear that the Aadhaar scheme cannot be made mandatory but it has set the stage for the 12-digit UID numbers being used as the basic identity proof for all residents.

**Aadhaar- Background**

- 12 digit identification number issued by UIDAI.
- Aadhaar- Demographic ( Age, Address, Sex) & Biometric (Iris Scan , fingerprints).
- Statutory backing by Aadhaar (Targeted Delivery of Financial and other Subsidies, benefits and services) Act, 2016- ensures Right to Privacy.

**1.1 Aadhaar now needed for:**

- Aadhaar-based e-KYC (Know Your Customer) process for mobile connection.
- 31 Schemes including MNREGA, NFSA, Pension Benefits
- PAN card and for filing income tax returns
- Address Proof

**1.2 Benefits that would accrue due to government stand:**

- Better targeting of public services.
- Better tracking of defaulters.
- Effective against tax evasion and curbing black money.
- Uniformity in procedures will reduce overlapping and confusion.

**1.3 Criticisms:**

- Handling of important data under Aadhaar by private operators poses a concern to right to privacy.
- Making Aadhaar mandatory for social welfare schemes may lead to exclusion of many eligible beneficiaries.
- Using Aadhaar for schemes like Mid-day Meal is a regressive step and against child education and nutrition.

**2. Appointment of Lokpal****Why in news?**

- The Centre informed the Supreme Court that appointment of the anti-corruption ombudsman, Lokpal, is not possible now.
- The amendments to the Lokpal law, concerning the substitution of the Leader of Opposition (LoP) with the leader of the single largest opposition party in the Lok Sabha on the high-power Lokpal selection committee, is still pending with Parliament.

**Leader of opposition**

Party must have at least 10% of the total strength of the House (55 seats in the Lok Sabha)

Salary and Allowances of Leaders of Opposition in Parliament Act, 1977 : official and legal status.

- The committee comprises the Prime Minister, Lok Sabha Speaker, LoP and the Chief Justice of India or a SC judge as per the Lokpal and Lokayukta Act of 2013
- But the 16th Lok Sabha has not recognized LoP.
- The LoP has been substituted with the single largest opposition party leader in other laws concerned with the appointments of the Chief Vigilance Commissioner, the CBI chief and the Chief Information Commissioner.

### 3. Supreme Court bans sale of BS-III vehicles

#### Supreme Court Ruling:

- **Citing health of the citizen more important than the commercial interests** of the automobile industry, the Supreme Court ordered a freeze on the registration and sale of BS-III fuel compliant vehicles by “any manufacturer or dealer” on and from April 1.
- The court had pointed out that the new fuel (for BS IV) was “cleaner” and the oil refineries had spent about ₹30,000 crore since 2010 to produce it.

#### Views of Manufacturers:

- Vehicle manufacturers argued that they were entitled to make BS-III vehicles till March 31.
- So, the sale and registration of these vehicles should not be prohibited after April 1 with the introduction of BS-IV norms.

#### How BS-IV engines cut emissions drastically

- BS-IV engines require that the Sulphur content of the fuel they use be less than 50 part per million (ppm) whereas BS-III ones run on 350 ppm fuel.
- BS-III vehicles with mechanical fuel pumps use fuel less aptly.
- Substantial reductions in particulate matter emissions.
- In 2016, the Indian government announced that the country would skip the BS-V norms altogether and adopt BS-VI norms by 2020.

### 4. Ban on liquor shops around Highways

#### Supreme Court ruling:

- SC, earlier, directed the removal of all liquor vendors located within 500 meters of national and State highways.

#### States' views

- Blanket ban would see a literal collapse in State revenues, leaving them with no option but to approach the Centre with a “begging bowl” for welfare funds.
- The States argued that instead of a blanket “one-size-fits-all approach” ban, the court should

#### Bharat Emission Stage Standards

- Based on European regulations, were first introduced in 2000
- Regulate the output of air pollutants from internal combustion engines and Spark ignition engines equipment, including motor vehicles.

#### **Hobbled by obstacles**

The deal hinges on the completion of the nuclear cooperation pact between India and Japan, which was signed last November but is yet to be ratified by the Diet



**Past decisions:** In meetings between Barack Obama and Narendra Modi, the two sides decided to operationalise the deal by June 2017

#### **How things unfolded**

**SEPT. 2013:** NPCIL-Westinghouse sign early works agreement

**JAN. 2015:** Deal on liability announced by Obama and Modi

**APRIL 2016:** GE-Hitachi project for 6 x 1,594 MWe ESBWR units forced to shift from Gujarat's Mithivirdi

**JUNE 2016:** NPCIL-Westinghouse agree to begin site design, prepare commercial contract for 6 AP1000 Mwe reactors by June 2017

#### **Signs of trouble**

• Toshiba-owned Westinghouse announces \$6.3 bn. losses, likely to file for bankruptcy by March 31

• Creditors may await outcome of Westinghouse financial problems before signing on to India deal

• Land acquisition issues for GE-Hitachi in Andhra Pradesh not resolved yet

• Japanese Diet misses date in early March to table deal. Deals for reactors and parts with Toshiba-Westinghouse, GE-Hitachi, Mitsubishi-Areva await clearance

take a “gradualist approach” after studying the varied topography and commerce of the States.

### **5. India-U.S. civil nuclear pact**

- Bankruptcy of reactor maker Westinghouse clouds operationalization of the deal made in 2008.
- Six reactors were to be built in Andhra Pradesh by Toshiba-owned Westinghouse and the Nuclear Power Corporation of India Ltd (NPCIL).
- Both sides had effectively sorted out all their issues, including over the liability that suppliers must accept in the event of an accident.
- Nuclear arrangement hinged on two major factors — the completion of the India-Japan Nuclear Cooperation Agreement (NCA), as Toshiba and other suppliers for reactor parts are bound by Japanese laws and by the actual contract to be negotiated by the U.S.-based Westinghouse.
- India-Japan Nuclear Cooperation Agreement yet to be ratified by Japanese Diet.

### **6. Funding Regulations-Cloak of invisibility**

#### **Amendments proposed in Companies Act, 2013:**

- Companies could only contribute up to 7.5% of their average net profits in the past three financial years to political parties. This Ceiling has been dropped.
- Companies to reveal the extent of their financing of parties, but no longer have to name their preferred parties.
- Introduced under Finance Bill.

#### **Impacts:**

- Doing away with the limit makes firms susceptible to funding ‘requests’ from local, regional or national political formations.
- This would lead to crony capitalism.
- Removes any presence of transparency in the process.
- This abandonment of the 7.5% requisite comes in tandem with the proposal to float electoral bonds to give anonymity to political donors.
- Bypassing Rajya Sabha through money bill route.

### **7. Plea to bar convicts from politics:**

#### **Why in news?**

- The Supreme Court asked the Centre to respond to a petition seeking to bar convicted persons from contesting polls for life and preventing their entry into the judiciary and the executive.
- Recently, the Election Commission agreed that a uniform ban would be in the spirit of fundamental rights of the Constitution, including the right to equality.
- As of now, a person, on conviction, is debarred from contesting any elections for the period of his or her prison sentence and six years thereafter.

## **8. PROBLEM WITH EVMS**

### **Why in news?**

- Post U.P. Elections, Several political parties have raised apprehensions regarding the tampered EVM's.
- The ECI has time and again demonstrated the reliability and fool-proof nature of the EVM.

### **Reliability of EVM's**

- EVMs are standalone machines and are not networked either by wire or by wireless to any other machine or system.
- Cannot be influenced or manipulated by signals from mobile phones or any other source.
- The software in the machine is burnt into a one-time programmable chip or masked chip and can never be altered or tampered with.
- The source code of the software is not handed over to any outsider.
- The use of EVMs has cancelled out the effect of invalid votes, making the process robust besides keeping it simple and effective.
- The ECI also cited judgments of different High Courts and the Supreme Court of India that upheld the reliability of EVMs.

### **Standard operating procedure**

- ✓ First level testing: Before the machines are allotted to various constituencies from storage points, party representatives are invited to check the EVM's. A computer program allocates, at random, machines to constituencies.
- ✓ Second-level testing: The serial number of the machine sent to each polling station is shared with the candidates, who can pass on this information to their representatives in the respective polling stations.
- ✓ Finally, before the start of the polling process, each presiding officer conducts a mock poll to demonstrate the "correctness" the machine in recording votes.

### **About Voter Verified Paper Audit Trail (VVPAT)**

- ✓ A VVPAT is intended as an independent verification system for voting machines designed to allow voters to verify that their vote was cast correctly, to detect possible election fraud or malfunction, and to provide a means to audit the stored electronic results.
- ✓ It contains name of the candidate (for whom vote has been casted) and symbol of the party/ individual candidate.
- ✓ The VVPAT includes a direct recording electronic voting system .
- ✓ In India, Voter-verified paper audit trail (VVPAT) system was introduced in 8 of 543 parliamentary constituencies as a pilot project in Indian general election, 2014.

## **9. River as a being**

### **Why in news?**

- The Uttarakhand High Court declared the rivers Yamuna and Ganga as legal or juridical persons, enjoying all the rights, duties and liabilities of a living person.
- All their tributaries, streams, every natural water body flowing continuously or intermittently of[f] these rivers will enjoy this status.

- Indian courts have granted this status to temple deities, religious books, corporations, etc., but it is for the first time that an element of the natural environment has been declared a legal person.
- The Director, Namami Gange, the Chief Secretary of Uttarakhand and the Advocate General of Uttarakhand have been appointed as the persons *in loco parentis* - persons who will act 'in the place of parents' for the two rivers.

#### Need For Such Action:

- Rivers provide 'physical and spiritual sustenance' to half of the Indian population.
- Inability of the State to remove encroachments.

#### Poses certain questions:

- The judgment comes close on the heels of New Zealand granting legal status to the Whanganui River.
- The High Court's declaration lacks clarity on right to sue and be sued.
- Do other riparian State governments now have less of a role in the protection of the rivers as they are not the identified 'custodians'? And what are rivers' duties?

#### 10. Office-of-profit:

- The Election Commission reserved its order on the plea of 21 Aam Aadmi Party (AAP) MLAs who are facing the office-of-profit charge.
- The MLAs had asked for the proceedings against them to be dropped as the Delhi High Court had already set aside their appointment as parliamentary secretaries.

#### Background

- In 2015, Delhi Govt. had appointed 21 parliamentary secretaries to six Ministers.
- This post was not exempted from the definition of "Office of Profit".
- Delhi govt. brought an amendment to Delhi Members of Legislative Assembly (Removal of Disqualification) Act, 1997, to make the position of Parliamentary Secretary exempt from definition of "Office of Profit".
- But the President has refused to give his consent to the amendment.
- Due to the special status of Delhi as a Union Territory, a Bill passed by the Assembly is not considered an applicable "law" unless it is passed by the Delhi Lieutenant Governor and the President of India.
- The Delhi govt. argues that as Parliamentary Secretaries are not eligible for any remuneration or perks from the government, the post should be exempt from the office of profit.
- Recently, the Delhi HC quashed this appointment on the ground that it lacked the approval of LG.

#### **Definition of Office of Profit**

'Office of profit' is not defined in the Constitution. However, based on past judgments, the Election Commission has noted five below tests for what constitutes an office of profit:

- ✓ Whether the government makes the appointment
- ✓ Whether government has the right to remove or dismiss the holder.
- ✓ Whether the government pays remuneration.
- ✓ What the functions of the holder are.
- ✓ Does the government exercise any control over the performance of these functions.

**ECONOMICS****1. CENTRE MAY EXPAND SOCIAL SECURITY NET**

*Note: GS-3 Social Security scheme for the unorganized sector*

- EPFO plans extending social security benefits to volunteers under anganwadi, mid-day meal and Accredited Social Health Activists (Asha)
- A lower contributory rate of 10% of income towards the EPF be allowed for scheme workers as against 12% contribution stipulated for the organised workers.
- There is no mandatory social security cover for such scheme workers at present.
- The Centre can issue a notification to cover any class of establishments with a lower contributory rate under the Employees' Provident Fund and Miscellaneous Provisions Act, 1952.
- This will only be applicable to scheme workers in organisations employing at least 20 workers.
- The EPFO will also consider a proposal to increase wage ceiling for its social security coverage to Rs 25,000 a month from Rs 15,000 a month at present in a bid to bring more workers under the provident fund net.
- At present, EPF is optional for employees earning more than Rs 15,000 a month.
- This will ensure more coverage of beneficiaries under the scheme

**2. THE FINANCE BILL, 2017: THE FAR-REACHING CONSEQUENCES OF A LOK SABHA MAJORITY****Recently**

- The long title of this year's Finance Bill states that it "gives effect to the financial proposals of the Central Government for the financial year 2017-18".
- This is because the Finance Bill typically includes provisions that give effect to the imposition of a tax or a change in existing tax rates — such as a lowering of income tax, or changes to corporate tax, customs or excise duties.
- Since the Finance Bill is a Money Bill, it only needs the approval of Lok Sabha, and Rajya Sabha may only make recommendations.
- If Rajya Sabha does not pass the Bill within 14 calendar days, it is deemed to be passed.
- This year, the Finance Bill has been passed by Lok Sabha with not only changes to applicable taxes, but also structural changes to institutions and sectors.
- This, however, is not the first time that the Finance Bill has proposed legislative changes that are unrelated to taxation.
- In earlier years, the Finance Bill has envisaged substantive provisions relating to the creation of an independent agency to manage government debt, the Monetary Policy Committee to target inflation, and the merging of the Forward Markets Commission with the Securities regulator.
- MPs from both Lok Sabha and Rajya Sabha have objected to such structural provisions being included in the Finance Bill.

**Facing all-round flak**  
The government has come under heavy criticism for some of the alterations made to the Finance Bill

<p><b>Income Tax</b></p> <ul style="list-style-type: none"> <li>• Section 132 of Income Tax Act, 1961, has been changed. Now, anything can be "provisionally seized" during a raid</li> <li>• I-T officers given the right to raid properties where charities operate, and seek any information</li> </ul>	<p><b>Aadhaar</b></p> <p>Aadhaar to be mandatorily linked to PAN cards by July 1, 2017, failing which the card will be invalid</p>	<p><b>Donations and cash</b></p> <ul style="list-style-type: none"> <li>• Removes cap on donations by individuals or companies to political parties</li> <li>• Threshold limit of cash payments reduced from ₹3 lakh to ₹2 lakh</li> </ul>
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- The Finance Bill, 2017 allows the central government to specify the appointments, tenure, removal, and reappointment of chairpersons and members of Tribunals through Rules.
- Currently, these provisions are specified in the parent laws establishing these Tribunals.
- The fundamental issue here is whether it is appropriate to delegate such matters to the government through Rules. Typically, a Bill passed by Parliament includes the broad regulatory framework and principles governing the sector, and allows the government to specify the details of implementation through Rules.
- The idea behind delegating Rulemaking to the government is to address the need for expediency and flexibility in implementation of laws. While a Bill requires parliamentary approval in order to be enforced, Rules do not.
- Giving the government the power to make Rules regarding the appointment, removal, and reappointment of members on a Tribunal lowers the threshold of parliamentary scrutiny.
- Tribunals are quasi-judicial bodies that are headed by a senior member of the judiciary, such as a judge of the Supreme Court or Chief Justice of a High Court. There could be a conflict of interest if the government were to be a litigant before a Tribunal, while also determining the appointment of its members and presiding officer.
- Tribunals affected by the Finance Bill include those before which the central government could be a party to disputes — such as those related to Income Tax, Railways, administrative matters, and the Armed Forces Tribunal. In 2014, the Supreme Court, while examining provisions related to the National Tax Tribunal, had held that Appellate Tribunals have powers and functions similar to that of High Courts, and hence matters related to the appointment and reappointment of their members must be free from executive involvement.
- The amendments to the Finance Bill also replace certain existing Tribunals and transfer their functions to other Tribunals. The rationale for this overhaul has not been stated.
  - ✓ For example, the Airports Economic Regulatory Authority Appellate Tribunal has been replaced by the Telecom Disputes Settlement and Appellate Tribunal (TDSAT). It is unclear whether TDSAT, which primarily deals with telecom disputes, will have the expertise to adjudicate matters relating to the pricing of airport services.
  - ✓ Similarly, it is questionable whether the National Company Law Appellate Tribunal, which will replace the Competition Appellate Tribunal, will have the expertise to deal with matters relating to anti-competitive practices.
- The Finance Bill allows anonymous donations to political parties through electoral bonds. It also removes existing limits on the percentage of profits that a company can donate to political parties. The broad policy question is how to strike a balance between transparency versus anonymity in political funding. Anonymity in political funding may be desirable to protect donors from harassment from rival political parties.
- On the other hand, transparency in donations to political parties provides information on interested entities that financially support political parties. Other structural changes made by the Finance Bill include the creation of the Payments Regulatory Board. It also makes Aadhaar mandatory when applying for a Permanent Account Number (PAN), or filing Income Tax returns. Every person holding a PAN is also required to provide his Aadhaar number, else the PAN will be invalid.

### **3. A TIMELY STEP: STATE-OWNED BANKS SHOULD ADDRESS THEIR NPAS**

#### **State-owned banks, told to submit turnaround plans, should strive to address their NPAs**

- The FM has asked 10 state-owned lenders to submit time-bound turnaround plans if they wish infusion

- Commercial lenders have a central role in the economy, by serving to harness public savings and directing the flow of crucial credit to the most productive industrial and infrastructure sectors.
- And when PSBs, with their revolving-door top managements, have little incentive or accountability to redress the burgeoning imbalance in their balance sheets, it is time the largest shareholder delivers an ultimatum: shape up or be prepared to face the consequences.
- That the Centre has chosen to include the employees' unions in the proposed indicates of the seriousness.
- Staff, who have been a key element in the growth and development of the sector, have a vested interest in the health of PSB
- PSB managements would need to be empowered so that **"haircuts [write downs on the value of debt]** taken by banks under a feasible plan would be required by government ruling as being acceptable by the vigilance authorities.
- The stipulation of a three-year time limit for the implementation of the turnaround is also significant as Indian lenders have to meet Basel III capital regulations by March 31, 2019.

#### **4. BIODIESEL BODY CALLS FOR LOWER STATE TAXES**

- High state taxes on biodiesel are effectively rendering the green fuel significantly more expensive than regular diesel
- This is majorly because of taxation issues
- The taxes by the state government are very high.
- As soon as biodiesel is blended with diesel, the taxes can go as high as 20-30% depending on the state government.
- The biodiesel itself becomes H 7-8 more expensive than diesel because of the tax element
- Another problem is that there is no proper national policy on biodiesels, since the policy was framed in 2009. It has not been gazetted as of now

#### **Biodiesel consumption in India**

- The annual consumption of biodiesel in India is about 80 lakh litres
- In the July 2015 interim Railway Budget, the government had said that railways would blend up to 5% of biodiesel with their fuel.
- From April 1 till [the time] GST comes, the excise incentives for biodiesel should continue

#### **Benefits of biodiesel:**

- Using biodiesel can reduce hydrocarbon usage by almost 80%, and particulate matter emissions can be reduced by 38-40%, and there is no sulphur emissions

#### **5. REGIONAL CONNECTIVITY SCHEME**

##### **Problems with RCS scheme**

- CRISIL Research has found out that only 50 to 60 out of the over 414 identified un-served and underserved regional airports have the necessary infrastructure to support flight operations under **Regional connectivity Scheme(RCS)**
- Passenger load factor (PLF) of about 50-60% would be required to breakeven at the EBITDA (or earnings before interest, tax, depreciation and amortization) level

- Counter-bidding for routes under the RCS of the government's ambitious **UDAN (Ude Desh ka Aam Nagarik) programme** got over recently
- Though domestic passenger traffic in India has grown 10% a year in the five fiscals to 2016 to 85 million annually, it is concentrated at the 6 metro airports, which account for about 65% of the total domestic passenger traffic, leaving the rest to the remaining 73 airports.

### All about RCS

- The government in October 2016 released final RCS note:
- Under this, airfares for any given distance are locked and are subject to a quarterly revision based on CPI inflation. For instance, the RCS fares for 501-525 km sector should be below Rs 2,500.
- Since these are not high passenger traffic routes and requires deployment of small aircraft which are costlier to operate, the government has decided to encourage the players by providing several incentives.
- These includes benefits such as reduction in value-added tax (VAT) on aviation turbine fuel (ATF) to 1%, reduction in excise duty to 2% and exemption from levy of airport charges such as passenger service fee, development fee and user development fee on RCS tickets at both public as well as private airports.
- Besides aircraft to be operated under RCS will not be levied landing and parking charges and the sales tax would be levied only on 10% of the taxable value of the tickets for one year.
- New airline licences are proposed to be given under the Scheduled Commuter Airline category to ease the pressure with respect to capital requirement and fleet expansion on airlines under the scheme. And the civil aviation ministry has asked the the finance ministry to reduce taxation on the import of aircraft to 3% from about 18%.
- The selected airlines in the bidding will receive route exclusivity for 3 years from commencement of operations. Route bidding and allocation will be carried out twice a year.
- To qualify as an RCS route, at least one of the airports (origin/ destination) should be listed in the scheme and should not have scheduled commercial flights in the specified route during the past 1 year.

### The G-60

- However, CRISIL Research study only upto 60 airports/airstrips including 12 underserved and the remaining un-served are infrastructure ready.
- They have the required runway length of upto 1600 meters that can handle an ATR 42 operation and the terminal buildings.
- Of these, 25 airports are under the control of Airports Authority of India, 11 under Defence, 11 are private and the rest under the respective state governments
- These 55-60 airports could see an investment of Rs 50-100 crore per airport for expansion/modernization to facilitate aircraft operations and passengers, depending on the airlines' interest
- The **Centre for Asia Pacific Aviation (CAPA)** recently in a report stated that the precious capital for airport development must be directed towards viable projects.
- Implementation of RCS is subject to the state governments' acceptance of a reduction in VAT on ATF to 1% at RCS airports and a 20% contribution towards viability gap funding (VGF).
- As of January 2017, 19 states had given their consent for implementation of the scheme and of these 11 – Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Jharkhand, Madhya Pradesh, Maharashtra, Mizoram, Pondicherry, Uttarakhand and West Bengal– had signed memoranda

of understanding. "Together, these states have about 8 underserved and 173 unserved airports – but only 23 of these have the requisite infrastructure

### **Breakeven crucial for continuity**

- Though subsidies are offered to operate on RCS routes, CRISIL's analysis indicates a PLF of 50-60% is required to breakeven at the EBITDA level, assuming the highest possible revenue per RCS seat (highest VGF per RCS seat + highest air fare per RCS seat for category 2/3 aircraft) for a stage length of 500-525 km.
- The passenger load factor required to breakeven at EBITDA will increase with aggressive bidding on VGF and reduction in fare charged by the airline operators
- VGF bidding is a very crucial part of the scheme as it will determine the profitability of the airline. RCS routes will be allocated to airlines on the basis of reverse bidding for VGF (lowest bid wins).
- The scheme has prescribed a VGF cap per seat for each stage length. Also, an airline operating a Category I (under 20 seats) aircraft is entitled to higher VGF. For instance in a 476-500km slab, a Category I aircraft is entitled to a maximum VGF of Rs 5,730 per seat, whereas a Category 2/3 aircraft (more than 20 seats) can have a maximum VGF of Rs 4,050 per seat, which is about 40% higher VGF for Category I aircraft.
- The amount of VGF provided to the airline is indexed to inflation, ATF price and dollar-rupee exchange rates.
- As per the scheme, the airlines flying RCS routes should allocate 50% of the seat capacity as RCS seats, subject to a minimum of 9 and a maximum of 40 seats.
- The airfare cap and VGF will be applicable only to these RCS seats. Besides, RCS seats are not subject to any levies or charges imposed by airport operators such as the passenger service fees, development fees and user development fees, which account for about 10-15% of the ticket price at metro airports.

### **6. POWER LOSSES: TECHNOLOGY TO THE RESCUE**

- The high rates of transmission and distribution losses in India, up to 60% in some states, have led to a profusion of technologies emerging to at least address the non-technical losses occurring due to power theft and meter tampering.
- Companies such as Omron, Sensus and even phone handset maker Nokia have begun operations in this sector
- Others have begun work to reduce costs by enabling remote reading of meters, doing away with the need for a physical check at each meter location.
- Omron, for example, has been developing a sensor that can be integrated with meters, allowing the detection of any sort of tampering, be it physical (when the consumer jolts it in the hope that the meter reading will pause) or electromagnetic (where the consumer applies a charge in the vicinity of the meter, which renders it temporarily dysfunctional).

### **Detecting imbalances**

- Today, all electricity meters should be read by **IOT**. why should anybody go for meter readings, I can't imagine? We should be able to just have an embedded chip meter that would pay for itself as well.
- Payment wallet reads the meter and pays for itself.
- Angelique International has developed a smart meter that seeks to address the issue.

- Smart meters communicate meter readings directly to electricity distributors, eliminating the need for someone to come out and read meters – whether that is required for each bill, to change electricity retailers or to reconnect power when customers move house
- **Smart meters** cannot be bypassed, and can be read with the help of a remote device
- Another issue in India behind the poor delivery of electricity to the end consumer is failing infrastructure and, here too, the integration of communications technology could help address the problem.

## **INTERNATIONAL RELATIONS**

### **1. Human rights in Sri Lanka:**

From the time Sri Lanka's civil war ended in 2009, international actors have infused narratives of the war with stories of human rights abuses.

#### **Notes from Geneva**

- Sri Lanka was again in the limelight at the United Nations Human Rights Council (UNHRC) in Geneva
- The September 2015 resolution, adopted months after regime change in Sri Lanka, signaled a departure from the Council's earlier antagonistic stand, with Sri Lanka itself co-sponsoring the resolution to address war-time accountability.
- The new resolution, on March 23, co-sponsored by the United States, Sri Lanka and other countries, accedes to Sri Lanka's request for an extension of two more years to fulfill its commitments on accountability.
- The Tamil nationalist campaign opposed such an extension.
- In the island's Sinhala-majority south on the other hand, the debate centered on whether any future justice mechanism for accountability should include foreign judges or not.
- That Sri Lanka will get its extension, that foreign judges will never be allowed to enter the country and that the U.S. will shield Sri Lanka at the UN, are political realities that escape those firmly pursuing this prolonged engagement in Geneva.

#### **Other issues missed**

- While the state has been rather slow to address the issue of disappearances and military land grabs, these campaigns hardly address the economic deprivation of the missing people's families and the predicament of the landless.
- Furthermore, the rights of women, fisher folk, workers, oppressed castes and the northern Muslims seldom figure in popular human rights narratives.

#### **Sri Lanka's Civil Rights Movement-Changing Paradigms**

- The Civil Rights Movement emerged after the brutal state repression of the 1971 JVP insurrection, an uprising by rural Sinhala youth.
- With the war in the late 1980s, university community monitored the various armed actors, including the Sri Lankan military, the Tamil armed movements and the Indian Peace Keeping Force.
- However, the targeting of activists and increased political repression by the state and the LTTE, curtailed the democratic space for such work, particularly in the north and the east.

- The growing international attention on the protracted conflict and increasing donor funding for NGO in Colombo, brought about the shift of appealing to international forums.

## **2. India hopes Bhutan will ratify vehicles pact**

- India, Bangladesh and Nepal have already ratified the MVA.
- Bhutan's National Council (NC) did not ratify the sub-SAARC motor vehicle zone among Bangladesh, Bhutan, India and Nepal (BBIN).
- Protests from the Opposition, mainly over environmental concerns of vehicular pollution have derailed the process.
- Raised questions on the number of vehicles that would be allowed into the country via the Southern trading point of Phuentsholing and road capacities.

## **SCIENCE & TECHNOLOGY**

### **1. Early shift to renewable needed to save climate: IRENA**

- Berlin Energy Transition Dialogue (BETD2017) held on March 20 and 21, the findings are significant for India as the country races to meet its target of 175 GW of power from renewable by 2020.
- IRENA estimates that global carbon emissions can be reduced by 70% by 2050 and completely phased out by 2060. The report also emphasizes the importance of considering the needs of those without energy access.

#### **Decarbonization Facts:**

- The focus must be on decarbonization of the global energy system as it accounts for almost two thirds of greenhouse gas emissions
- IRENA's macroeconomic analysis suggests that the investment for decarbonizing the energy sector would boost global GDP by 0.8% by 2050, generate new jobs in the renewable energy sector
- Renewable energy now accounts for 24% of global power generation and 16% of primary energy supply.
- To achieve decarbonization, the report states that, by 2050, renewable should be 80% of power generation and 65% of total primary energy supply.
  - ✓ The study stresses the need for rapid growth in solar and wind power generation, in combination with enabling grids, and new operating practices.
  - ✓ It also underlines the need to promote electric vehicles and liquid biofuel production as well as to equip a total of 2 billion buildings across the world with energy efficiency measures.

### **2. Gravitational waves**

#### **Hubble images provided the first clue of the phenomenon**

- NASA's Hubble space telescope has detected a super massive black hole that has been kicked out of the centre of a distant galaxy by what could be the power of gravitational waves.
- Weighing more than one billion suns, the rogue black hole is the most massive black hole ever detected to have been kicked out of its central home.

- Researchers estimate that it took the equivalent energy of 100 million supernovas exploding simultaneously to jettison the black hole.
- The most plausible explanation for this propulsive energy is that the monster object was given a kick by gravitational waves unleashed by the merger of two hefty black holes at the centre of the host galaxy
- Hubble images taken in visible and near-infrared light provided the first clue that the galaxy was unusual.

### **Bright quasar**

- The images revealed a bright quasar, the energetic signature of a black hole, residing far from the galactic core.
- Black holes reside in the centre of galaxies, so it's unusual to see a quasar not in the centre
- The team calculated the black hole's distance from the core by comparing the distribution of starlight in the host galaxy with that of a normal elliptical galaxy from a computer model.
- The black hole had travelled more than 35,000 light years from the centre, which is more than the distance between the sun and the centre of the Milky Way

First predicted by Albert Einstein, **gravitational waves are ripples** in space that are created when two massive objects collide. The ripples are similar to the concentric circles produced when a hefty rock is thrown into a pond.

### **3. Environment Ministry official to chair animal welfare board**

- The Animal Welfare Board of India (AWBI), a statutory advisory body under the Union Ministry of Environment, Forests and Climate Change (MoEF), will now be permanently chaired by a senior MoEF official

### **Centre's upper hand**

- Differences between the AWBI and the MoEF, especially on the conduct of the jallikattu, was a key reason for the Centre to exert primacy in the management of the organization
- The Chennai-based organization, which derives its legal structure from the Prevention of Cruelty to Animals Act, 1960, frames a range of rules on how animals ought to be humanely treated everywhere.
- It has also frequently litigated to have stricter laws to ensure animals were not unduly harassed or tortured. Several government organizations, along with animal rights activists and parliamentarians, are represented on the Board.

### **4. Sharp rise in forest fires as summer advances in Odisha**

- Satellite imageries have recorded 1,607 forest fires in different jungles of Odisha during March.
- The number of forest fires has surged 57% compared with 1,018 noticed during the corresponding period last year.

### **Operating procedure**

- The Forest Department has also proposed to draw a more than 20,000-km-long fire line to stop fires from spreading to large areas.
- Besides, 216 fire fighting squads, with 10 members each, have been created in 37 forest divisions of the State that are prone to fires.
- For the first time, 410 fire blowers have been supplied to forest divisions to control fire.

### **5. Private weather forecaster sees below normal monsoon**

- Monsoon rains over India are likely to be 'below normal,' according to Skymet, a private weather forecasting company.
- Over three months, international weather models have been warning of an El Nino, characterized by warming surface waters in the equatorial Pacific during the latter part of this year.
- **El Nino** is known to dry up monsoon rains six out of 10 times.
- However, a favourable form of a current in the Indian Ocean, called **the Indian Ocean Dipole**, is widely expected to counter the effects of the El Nino during the monsoon.
- At present, the IOD is in the neutral phase but weather models are indicating that it may become positive during the second half of the monsoon.

### **6. A new frontier for TB diagnosis**

- Current methods for active TB diagnosis that are based on the presence of live bacteria in sputum samples
- However, a rapid blood test that relies on two proteins for diagnosis and quantification of the severity of active TB has shown promise.
- The blood test accurately detects minute levels of two biomarkers — CFP-10 and ESAT-6 — that TB bacteria release only during active infections
- It was able to diagnose both pulmonary and extra-pulmonary TB cases with high sensitivity — over 91% in the case of culture-positive pulmonary TB (PTB) and above 92% extra-pulmonary TB (EPTB), and 82% in culture-negative PTB and 75% in EPTB in HIV-positive patients.
- In the case of HIV coinfecting cases, the sensitivity was 87.5% for PTB and 85.7% for EPTB cases.
- Even Gene Xpert, introduced a few years ago to improve sensitivity and specificity, relies on sputum samples
- Xpert has "very low quality evidence" for EPTB diagnosis.

### **7. Delhi Police to launch app to track public vehicles**

- The Delhi Police may soon launch a Quick Response (QR) code monitoring mobile app for all kinds of public vehicles in the city.
- The police plan to make drivers and owners of these vehicles register under a larger database for easy tracking of offending drivers in the event of involvement and/or complicity in crimes against women.

#### **Safety of women**

- App was needed to ensure that women felt safe throughout their commute and that vehicles enabling last mile connectivity were part of the app.
- Through the app, the police plan to regulate the number of cycle and e-rickshaw drivers present.
- For taxis and autos, the police would write to the Transport Department, while for cycle and e-rickshaws, the police plan to issue permission slips or rope in other agencies.
- The main aim of the app, which will be monitored at a control room, is to improve the security for women using public transport, including cabs, especially during late hours



## 8. Dhruv

- Indigenously developed advanced light helicopter (ALH).
- Designed and developed by the HAL.
- Powered by the Shakti engine jointly developed by it and Turbomeca of France.
- India is in discussions with Sri Lanka and several Southeast Asian nations for the supply of Dhruv.
- Supplying defence equipment and providing assistance in setting up domestic manufacturing capability have become the new normal in India's defence cooperation with regional countries.
- India putting specific emphasis on maintenance and training in view of its experience of Dhruv sales to Ecuador (4 out of 7 crashed), which got embroiled in legal issues.
- The three Services have constantly complained about lack of spares and support for the fleet.

## HEALTH & EDUCATION

### 1. New Bill on mental illness termed progressive

The Mental Health Bill was passed by the Lok Sabha recently.

#### **Provisions of the bill:**

- Mental Healthcare Bill seeks to decriminalize the Attempt to Commit Suicide.
  - A person committing suicide is suffering from severe stress and hence exempt from trial and punishment.
  - The Bill also seeks to impose on the government a duty to rehabilitate such person to ensure that there is no recurrence of attempt to suicide.
- Seeks to fulfill India's international obligation pursuant to the Convention on Rights of Persons with Disabilities and its Optional Protocol
  - The social model of disability focuses on how disability hampers a person's full and effective participation of the society.
  - The Bill, on the other hand, adopts a narrow approach to see mental illness as hampering recognition of reality or ability to meet the ordinary demands of life and also as conditions associated with drug and alcohol abuse.
- Seeks to empower persons suffering from mental-illness, marking a departure from the Act of 1987.
  - Empowering the individual to make decisions concerning her mental healthcare or treatment.
  - The capacity to take such decisions is recognized if the individual can understand relevant information, appreciate foreseeable consequences of such decisions and also can communicate them.
  - The Bill also lays down certain parameters for determination of mental illness, seeking to use nationally and internationally accepted medical standards
  - The Bill provides every person, except a minor, with a right to make an **Advance Directive** specifying the way the person wishes to be cared for and treated for a mental illness and also to appoint a nominated representative every medical officer and psychiatrist to provide treatment to an individual as per the Advance Directive
- Adopts a **rights-based approach**, which is a first in the mental health law of India.

- Treatment from mental health services run or funded by government. This right is meant to ensure mental health services of affordable cost, of good quality, of sufficient quantity, are geographically accessible
- The Bill also recognizes the right to community living; right to live with dignity; protection from cruel, inhuman
- Right to confidentiality; right to access their basic medical records; right to
- Personal contacts and communication; right to legal aid; recourse against deficiencies in provision of care, treatment and services.
- Every insurer is bound to make provision for medical insurance for treatment of mental illness on the same basis as is available for treatment of physical illness.
- Provisions for registration of institutions and regulation of the sector
  - The Bill provides for the creation of Central and State Mental Health Authorities in order to ensure registration and supervision of mental health establishments;
  - to develop quality and service norms for these establishments; to
  - ensure registration of psychologists, mental health nurses, psychiatric social workers; to train law enforcement
  - The Bill also provides for the creation of **Mental Health Review Boards** that has adjudicatory powers over the various rights and protections guaranteed by the Bill.
- The Bill allows only restricted use of **Electro-convulsive therapy**.
  - The Bill completely prohibits Electro-compulsive therapy (“ECT”) as a measure of emergency treatment. It also prohibits ECT without muscle relaxants and anaesthesia.
  - ECT is completely prohibited for minors except
- Property Management
  - Right to manage their own property
- Funds
  - The Bill guarantees a right of affordable, accessible and quality mental health care and treatment from mental health services run or funded by Central and State governments.
- The Bill seeks to tackle **stigma attached to mental illness**
  - It makes effort to secure equal treatment for persons with mental illness and those with physical illness.

### Analysis:

- ✓ For the first time, there is an emphasis on rehabilitation within the community.
- ✓ The Bill talks about the patients right to live within the community and not in seclusion. This changes the perspective with which we look at mentally-ill patients
- ✓ It mandates the government to increase the number of mental health workers.
- ✓ It also talks about free access to medication from the levels of Community Health Centres (CHCs)
- ✓ While ECT is used by few medical practitioners who are rooted to age old treatments, retaining ECT in the Bill has not gone down well with many progressive doctors who don't believe in this therapy.
- ✓ The Bill also restricts medical institutions from chaining patients or keeping them in seclusion.
- ✓ **Problem with Advance Directive:** How will a person who has illusions, or feels that everyone is conspiring against him or her, be in the state to give such a consent

- ✓ In another progressive step, the Bill has made it mandatory for insurance companies to cover hospitalization due to mental disorders.

**Some more issues:**

- The country's grossly inadequate base of professional resources is evident from its ratio of 0.3 psychiatrists for 100,000 people (with marginally higher numbers taking independent private practitioners into account), compared to China's 1.7.
- Then there are massive deficiencies in the availability of trained clinical psychologists and psychiatric social workers.
- Raising effective primary and district-level coverage of mental health services for the general population, without requiring people to travel long distances to see a specialist and get medicines, should be a priority.

**2. TB vaccine trial on adults begins in June**

- In June this year, the Pune-based Serum Institute of India Pvt. Limited will begin a Phase II/III vaccine trial for tuberculosis using a novel, **recombinant** BCG (bacillus Calmette-Guérin) vaccine.
- The new TB vaccine (VPM1002), which will be tested, is based on the BCG vaccine that is in use.
- However, it is more powerful and efficacious as it contains a gene, better recognised by the immune system.
- The VPM1002 is a safe, well-tolerated, and immunogenic vaccine in newborn infants, confirming the results from the previous trials in adults
- While the currently used BCG vaccine causes BCG-related disease in HIV-positive babies (due to reduced immunity), the recombinant version is expected to be safe in babies exposed to HIV.

**3. Drug-resistant TB a concern**

- According to the Health Ministry, 17.5 lakh TB patients and 33,820 DR TB patients were notified in 2016 from public and private health
- The tuberculosis epidemic affects 28 lakh Indians; another 79,000 people suffer from type of TB resistant to most antibiotics.
- India has come under criticism from the global public health community for giving inaccurate estimates of the tuberculosis burden between 2000 and 2015.

**About TB**

- Tuberculosis is a contagious infection caused by Mycobacterium tuberculosis and it usually attacks the lungs.
- It can also spread to other parts of the body like the brain and spine.
- Tuberculosis is contagious and spreads through the air, much like cold or flu.
- The real crisis is drug resistance and nearly 1 in every 5 cases has primary resistance.
- Delaminid & Bedaquiline, are not currently available in Indian national TB programme. While Delaminid is yet to be registered in India, Bedaquiline is available at only 6 States in the country, under compassionate use.

## National plan

- The Indian government will soon be releasing the National Strategic Plan for TB Control (2017-2025), with an overarching framework to achieving the elimination goal.

## 4. India to redefine blindness to meet WHO stipulation

- As defined under the National Programme for Control of Blindness (NPCB), a person unable to count fingers from a distance of six metres is categorized as "blind" in India, against the WHO's stipulation of three metres.

## 5. The mistrust of science

Despite assurances that it is safe, the India-based Neutrino Observatory project continues to hit roadblocks

### What is the issue?

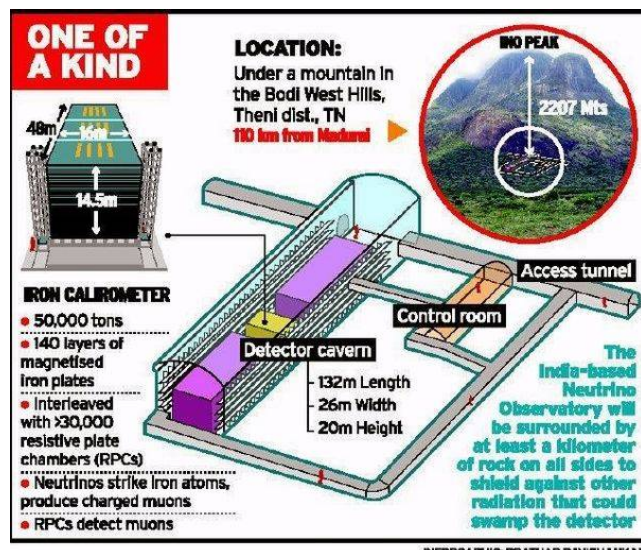
- ✓ The Union Environment Ministry had categorized INO project as a Category 'B' project, for which an EIA is not necessary.
- ✓ But, as per EIA Notification, 2006, any project specified in category 'B' will be treated as category A, if it is located in whole or in part within 10 km from the boundary of protected areas notified under the Wild Life (Protection) Act, 1972 and inter-State boundaries.

### What NGT says?

- ✓ INO is a category 'A' project, which meant EIA study has to be done by an accredited agency. Since the project was near a national park, INO needs to get a clearance from the National Board for Wildlife. It also needs to get necessary clearance from the Kerala government as well.

## About India-Based Neutrino Observatory (INO)

- ✓ It country's most ambitious basic science project proposed to come up in Bodi west hills of Theni district of Tamil Nadu. It aims at building a world-class underground laboratory with a rock cover of approximately 1200 meter.
- ✓ Its mandate is to conduct basic research on the elementary particle called neutrino. It is jointly supported by Department of Atomic Energy (DAE) and Department of Science & Technology (DST), with DAE acting as the nodal agency.
- ✓ The observatory will be located underground in order to provide adequate shielding to the neutrino detector from cosmic background radiation.
- ✓ It will comprise a complex of caverns which will house detector which is 130 metres long, 26 metres wide and 30 metre high.



## **MISCELLANEOUS**

### **1. Beach fest for differently abled from March 31**

- The States of Rajasthan, Tamil Nadu, and the NCR region are among front runners in providing accessible travel to persons with disabilities
- UMOJA, an online travel platform that offers holiday experience to wheelchair-users and differently-abled travelers.
- The point is travel platform for the differently abled should be seen as a business opportunity; only then will stakeholders put up ramps, other disabled-friendly infrastructure, accommodation
- He explained that #BeachFest2017 is a novel initiative to provide wheelchair users and their families an opportunity to enjoy a completely-accessible experience on the beaches of Goa.
- The festival will include water sports such as aquatic beach chair, beach bowling, wheelchair cricket, kite flying, sand castle competitions, and wheelchair dancing. Dozens of wheelchair users have already signed up for the event.

### **2. SBI to give banking services through SHGs**

#### **Odisha becomes first to adopt model**

- The Odisha government has signed an agreement with the State Bank of India group to extend banking services in the unbanked areas through Self Help Groups – the first State in the country to adopt this financial exclusion model.
- 70% of the gram Panchayats in the State does not have brick and mortar bank branches.
- The SHGs formed under the Odisha Livelihood Mission (OLM) will be eligible to provide banking services.

#### **Corporate agent**

- OLM would function as corporate agent and around 3 lakh SHGs operating under OLM would be the banking correspondents.
- In the first phase SHGs would be engaged as BCs in around 1000 remote GPs in scheduled areas having no banking facilities.
- Gradually, it would be extended to 4000 non-banked GPs. Subsequently entire State would be covered under the financial inclusion programme.