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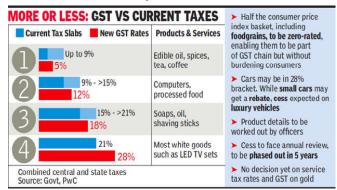
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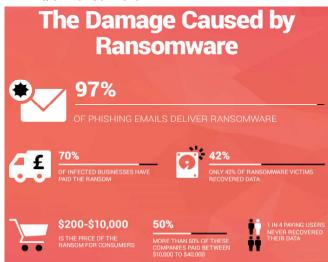


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COVER STORY

The Future of Nuclear **Energy in India**



Following two recent events led to revival of debate over nuclear energy in India:

- In May 2017 the Union Cabinet has approved ten 700 MWe PHWRs, without locations or timeline, but as a "fully homegrown initiative" with likely manufacturing orders to Indian industry of about INR 700 billion (\$11 billion). The Prime minister said it would help transform the domestic nuclear industry, which appears to suggest lower expectations of establishing new nuclear plants with Western technology from Areva, GEH, and Westinghouse.
- During PM Modi's visit to Russia, an agreement was signed for Units 5 and 6 Of Kudankulam.

Introduction

Energy is the most fundamental requirement of every society or nation as it progresses through the ladder of development. Today, India is going through a phase of rapid economic development and industries are evolving at a significantly higher rate. To support and sustain this economic growth there is need of massive energy. Currently, the country has a deficit of 15% during peak hours. It is predicted that the total electricity demand will grow five times from the current 150,000 MW by the year 2030.

Many reasons including the limited availability and shortage of fossil fuel coupled with its rising prices has led to the underachievement of development targets. Under current scenario nuclear power can play a key role in diversifying India's fuel mix along with providing clean and cheap power, much needed to meet the country's energy demand and fuel its growth drive. Nuclear power is the one word answer to meet the rising demand for cheaper and less pollutant power.

However, the development of nuclear power raises many debates related to the cost and safety. Thus, analyzing the nuclear energy scenario in India and its future prospects.

Evolution of Nuclear Energy in India: Past, Present & Future

Key landmarks in the evolution of nuclear energy in India can be analysed through three stages - Origin and India's isolation for nuclear energy in 1974; NSG waiver in 2008 and recent initiatives by the NDA government.





Initial phase of nuclear energy program

- After completing his PhD in nuclear physics from Cambridge University, Homi Jehangir Bhabha returned to India in 1939 when the Second World War started. He became instrumental in convincing Jawaharlal Nehru to start India's own nuclear energy programme.
- In 1944 Indian scientists 'began to plan nuclear research and went on a tour of atomic energy research facilities in Britain, Canada and the United States.
- In 1945, the Tata Institute of Fundamental Research was established, following a letter from Bhabha to the Sir Dorabji Tata Trust, proposing the creation of an institute devoted to fundamental research in physics.
- The Atomic Energy Commission (AEC) was set up in 1948, 'the first intermediary for foreign interest in India's nuclear development. The Department of Atomic Energy (DAE) was set up in 1954, of which the AEC became a part in 1958. The training school by the name of the Atomic Energy Establishment, Trombay (now Bhabha Atomic Research Centre) was established in 1957.
- India's three-stage nuclear power programme was formulated by Homi Bhabha in the 1950s to secure the country's long term energy independence through the use of uranium and thorium reserves found in India.
- Bhabha was later joined by Raja Ramanna and Homi Sethna. The trio is credited with spearheading India's nuclear energy programme.

Boiling water reactors:

India's civil nuclear program finally started in the 1960s with the building of two small boiling water reactors at Tarapur.

Pressurised heavy-water reactor (PHWR):

- Plans for building the first Pressurised Heavy Water Reactor (PHWR) were finalised in 1964.
- Benefits of PHWR: It was done because it requires less natural uranium than the BWRs, needed no enrichment, and could be built with the country's engineering capacity at that time - pressure tubes rather than a heavy pressure vessel being involved.
- This prototype Rajasthan 1, which had Canada's Douglas Point reactor as a reference unit, was built as a collaborative venture between Atomic Energy of Canada Ltd (AECL) and NPCIL. It started up in 1972.

Reason for low progress:

- India's civil nuclear strategy proceeded largely without fuel or technological assistance from other countries for more than 30 years.
- This was a result of its Peaceful Nuclear Explosion (PNE) in 1974 and its voluntary exclusion from the Non-Proliferation Treaty (NPT), which led to India's isolation from trade in nuclear power plant materials.

NSG waiver

- Following the Nuclear Suppliers Group (NSG) India-specific agreement which was achieved in 2008, the scope for sourcing both reactors and fuel from suppliers in other countries opened up.
- Civil nuclear cooperation agreements have since been signed with the US, Russia, France, Australia and Kazakhstan, among other countries.



Coming Of NDA Government to Power In 2014

The National Democratic Alliance (NDA), which came to power in 2014, is intent to significantly scaling up installed nuclear capacity. Some of the key steps taken by it in this direction are:

- In 2015, PM Modi struck an agreement with US President Barack Obama on the issue of civil nuclear liability.
- During Prime Minister Modi's trip to the US in June, 2016, NPCIL and Westinghouse signed a deal to set up six AP 1000 nuclear reactors in India.
- In November 2016, a full nuclear cooperation agreement was signed between India and Japan.
 - It will allow India to import Japanese nuclear technology.
 - It also secures Japan's support for India to join the international Nuclear Suppliers Group (NSG).
- In May 2017 the union cabinet approved ten 700 MWe PHWRs, without locations or timeline, but as a "fully home-grown initiative" with likely manufacturing orders to Indian industry of about INR 700 billion (\$11 billion). The Prime minister said it would help transform the domestic nuclear industry, which appears to suggest lower expectations of establishing new nuclear plants with Western technology from Areva, GEH, and Westinghouse.
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Present Energy Status of India

The total installed electrical capacity of India (utilities) as of May 2016: Around 300 gigawatts (GW).

Share of different sources in total installed capacity:

Source	Installed capacity	Share of total installed capacity		
Thermal power (Coal, gas and diesel)	210 GW	70 per cent. Thus India is highly reliant on fossil fuels to meet its energy demands.		
Renewable power (Wind, Solar, Biomass and Small Hydro)	43 GW	14.3 per cent		
Hydroelectric power	40 GW	13.3 per cent		
Nuclear power	5.8 GW	1.8 per cent		

How many nuclear plants and how much power is generated

India currently (as of march 2017) has '22' operating nuclear reactors at six locations across the country, and their combined capacity totalling '6.8 GW'.

Future targets

- Target by 2024: In March 2017 parliament was told that the 14.6 GWe target of nuclear capacity by 2024 was maintained.
- Target by 2032: India expects to have 63 GWe nuclear capacity by 2032 (out of total installed capacity of 700 GWe).
- **Till 2050:** The government's plan for nuclear to generate 25 percent of electricity by 2050 which could mean between 150 GW and 200 GW of installed nuclear capacity.



Debate over Nuclear Energy In India

Construction of indigenous nuclear power plants has revived the debate over whether India should pursue of path of nuclear energy in India or not.

Arguments against nuclear energy

- **Reactor's cost:** Nuclear plants are too expensive. They cost at least billion dollars to be built.
- Reactor's safety: Nuclear reactors are unsafe; Chernobyl disaster resulted in a huge death toll.
- Nuclear waste: In all countries using nuclear energy there are well established procedures for storing, managing and transporting such wastes, funded from electricity users. Wastes are contained and managed, not released. Storage is safe and secure, plans are well in hand for eventual disposal.
- Fear of being used for making nuclear bombs: Reprocessing spent fuel gives rise to plutonium which is likely to be used in bombs.
- **Insurance:** Insurance companies will not insure nuclear reactors so the risk devolves on to government.
- Use of renewable: If energy efficiency is all that's needed, then renewable energy sources should be used instead.

Arguments in favour of developing nuclear energy in India

Nuclear power is out gateway to a prosperous future - A. P. J. Abdul Kalam

We should remember that there are nations which meet more than 30 to 60% of their power requirements through the nuclear power system. - A. P. J. Abdul Kalam

Energy poverty:

- Although India is the fourth largest energy consumer in the world, only behind the US, China and Russia, it continues to remain energy-poor.
- In 2013, India's population without access to electricity was estimated to be a staggering 237 million (around 19 percent of the entire population).
- Thus India's energy poverty remains a big challenge.

Climate change (meeting INDC target):

- At the same time, India's total carbon emissions are on the rise. Since 1990, India's GHG emissions have risen by nearly 200 percent.
- Due to it's emission-free nature, nuclear energy can contribute to global efforts under Paris Agreement (which was decided at the Conference of Parties (COP) 21 meeting in December 2015) to tackle climate change by curbing its total carbon emissions.
- India's Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC) has outlined goals to reduce the carbon emissions intensity of its economy by 33-35 percent by 2030 as well as increase the clean energy electricity capacity to 40 percent of the total installed capacity in the same period.

Counter-arguments to apprehensions:

Reactor's cost: Once built, the cost to operate a nuclear power plant is constant and predictable since the uranium fuel cost very less. The primary costs of a nuclear plant are the operation, maintenance and capital costs.



- ➤ Reactor's safety: The nuclear industry has an excellent safety record, with some 14,800 reactor years of operation spanning five decades. The reactors built today are very safe. Even a major accident and meltdown as at Fukushima in 2011 would not endanger its neighbours. There were no deaths or serious radiation doses from the Fukushima accident.
- ▶ Nuclear waste: Nuclear wastes (as spent fuel) are an unresolved problem.

▶ Fear of being used for making nuclear bombs:

- The plutonium obtained from reprocessing is not suitable for bombs but is a valuable fuel which can be used with depleted uranium as mixed oxide fuel (MOX).
- Also, all traded uranium is sold for electricity production only, and two layers of international safeguards arrangements confirm this.
- ➤ Insurance: All nuclear reactors, at least in the West, are insured. Beyond the cover for individual plants there are national and international pooling arrangements for comprehensive third-party cover.
- ➤ Renewable are intermittent (unreliable secondary source): Nuclear energy is a reliable source of energy due to its consistent nature of production. Renewable's may be used as much as possible, but intrinsic limitations (diffuse, intermittent sources) mean that wind and sun can never economically replace sources such as coal, gas and nuclear for large-scale, continuous, reliable supply.

Hurdles to India's Nuclear Energy Program

Now although India has set an ambitious target of installing nuclear energy, but these targets face many hurdles.

This can be seen by the fact that inspite of successive governments have long touted nuclear power as the solution to India's energy woes, actual performance has merely flattered to deceive. India's waiver from the Nuclear Suppliers' Group and its agreement with the global atomic body, IAEA, has resulted in limited breakthroughs in the last decade.

> International hurdles:

■ Membership of Nuclear Supplier's Group (NSG):

- For getting full benefit of nuclear cooperation, India needs membership of NSG. But China is openly blocking India's entry into NSG due to geo-political reasons.
- Membership would allow India's full scale entry into nuclear energy trade; will help in meeting its growing energy demands; and would allow to shift its energy sources from fossil fuels to clean energy.
- NSG is a useful forum to advance global non-proliferation objectives, and further that India can contribute positively towards that end by being a NSG member.
- As India has significant expertise in nuclear energy, it can help other countries in getting access to clean nuclear energy for civilian purpose.

■ Challenges related to Civil and nuclear liability:

To address the issue of nuclear liability, India has ratified the Convention on Supplementary Compensation for Nuclear Damage and set up an insurance pool of Rs.1,500 crore (\$225 million) for liability risks that may arise from the construction and operation of nuclear power plants in the country.





It is uncertain, however, if this amount will effectively assuage supplier concerns. Just as an example, after the Bhopal gas tragedy of 1984, the Indian government claimed \$3.3 billion in damages. The proposed insurance pool is measly in comparison.

Domestic hurdles:

Land acquisition for nuclear energy parks:

- NPCIL plans to develop nuclear energy parks that could each supply 10 GW of power.
- Now there has been significant opposition and local protests to the government plans of land acquisition to develop these nuclear energy parks as seen in Kudankulam in Tamil Nadu and Jaitapur in Maharashtra. Proposed nuclear energy park of Westinghouse AP 1000 was shifted from from Mithi Virdi in Gujarat to Andhra Pradesh after facing protests by locals.
- Land acquisition itself is widely debated in India and the BJP government is attempting to pass its Land Acquisition Bill in Parliament.
- The bill provides certain exemptions for five categories of projects from having to go through the process of getting consent of majority of land owners.
 - These five exempted categories are: **defence**, **rural infrastructure**, affordable housing, industrial corridors, and Infrastructure projects.
 - Nuclear power plants would be categorised as infrastructure projects and therefore be exempted.
- Failure in passing the bill will ensure that land acquisition becomes yet another hurdle to nuclear power stations in the country.

Fuel requirements:

- Uranium: India has low reserves of uranium. But this changed a bit recently with the discovery of the Tummalapalle uranium mine in Andhra Pradesh, which has the potential to be among the largest uranium mines in the world. India has also entered into uranium supply agreements with various countries such as Russia, France and Kazakhstan to import the majority of its uranium needs.
- **Thorium:** India has huge thorium reserves which forms the basis of its plans for the third stage, the large-scale deployment of thorium reactors. However, few points should be remembered:
 - Thorium technology continues to be a long term goal rather than an immediate option for the country,
 - No country in the world has yet demonstrated a viable and commercial thorium reactor programme; and
 - There is also the question of safety and security.

Manufacturing constraints:

Nuclear power plants require heavy engineering components: Now all countries with serious nuclear power programmes have achieved them with a domestic manufacturing base that covered most of the supply chain of materials required for building a nuclear power plant.



- India's current manufacturing capability only covers the supply chain for 700 MW PHWRs. It is not yet ready to cover other reactors and reactors with capacities of more than 1 GW.
- Thus, there exist manufacturing and supply chain constraints.

Human resource:

- India currently faces a shortfall in nuclear scientists and engineers.
- In 2006, Department of Atomic Energy stated that it would be necessary to train and recruit about 700 scientists and engineers every year in R&D units.

Regulatory challenges (wrt AERB):

As noted by the parliamentary Public Affairs Committee (PAC) report on the AERB, regulatory oversight too faces a huge manpower shortage.

Funding:

- According to a study by Observer Research Foundation in 2016, India's nuclear projects are estimated to cost minimum Rs.100,000 crore to
- Attracting finance is vital for a sustained push to develop India's nuclear programme.
- As noted earlier, the EPR is currently running three times over budget in Finland and the cost stands at €9 billion.

How much nuclear power capacity can be installed by 2050?

- According to various projections it is feasible that the installed nuclear power capacity of India could rise to around 50 GW by mid-century, which would be nearly a tenfold increase on current levels. However, the share of nuclear energy in India's total electricity mix would still be low.
- On the other hand, for installed nuclear capacity to rise to 100 GW and above, and nuclear power to contribute 25 percent of the electricity produced in the country, the limits will have to be pushed by tilting India's energy system comprehensively towards nuclear power.
- For this India needs to have a two-pronged strategy:

Focus on indigenous production of Pressurized heavy water reactor (PHWRs)

- India should remember that no country in the world has built a sizeable fleet of nuclear reactors without a significant build-up using domestic resources and technology.
- Thus India should focus on perfecting the building and operation of its 700-MW Pressurised heavy water reactor (PHWR) technology.
- Building Indigenous PHWRs has various advantages:
 - India can rapidly scale up the construction of PHWRs across the country unhindered by international politics, tricky bilateral agreements, unreliability of foreign supply chains and massive costs (Both EPRs and AP 1000s are expensive and untested (they are not in commercial operation anywhere around the world yet)).





- PHWRs will use natural uranium, thus removing the need for enrichment.
- It will offer India the chance to master a type of nuclear reactor technology. Successful demonstration of this technology will allow India to build PHWRs in other countries, earning it valuable capital for further expanding the fleet of PHWRs at home.

International Collaboration:

- Apart from focussing on indigenous production, India should also complete the existing international projects by solving the issues related to supply of fuel, land requirement and meeting the manpower requirement.
- India should also focus on getting NSG membership by diplomatically engaging with China and if required then using membership of MTCR as a bargain.

Conclusion

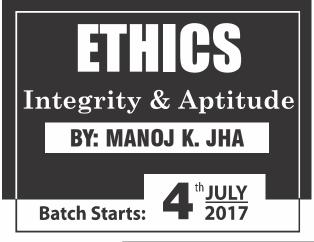
Nuclear power can help to improve energy security. For rapidly developing economy such as India, it (nuclear energy) can make a vitally important contribution to growth. Besides, nuclear power can also reduce the impact of volatile fossil fuel prices and mitigate the effects of climate change.

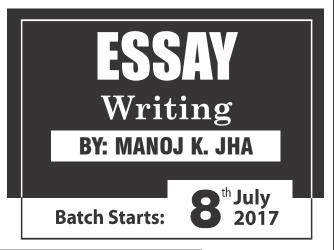
In pursuit of the peaceful uses of Atomic Energy India has achieved many milestones in this area. A strong R&D base has been established and functions as a backbone for the smooth transition of the research and development activities to the deployment phase and thereby realising the Department of Atomic Energy's mandate. Many technologies of strategic importance have been mastered to meet developmental needs.

But more need to be done to utilize the potential of Nuclear energy properly without affecting the safety and security of the citizens of India.



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INTERNAL SECURITY

Strategy to Counter Naxal Insurgency



The Naxalites state their main political purpose as establishing an alternative state structure in India by creating a "red corridor" in Naxalite-affected states, stretching from the border of Nepal to central India to Karnataka in the south through violent struggle. To achieve this political objective, which requires local support, Naxalite rebel leaders take up causes like protecting people's rights of Jal, Jangal and Jamin (water, forest, and land) and provide justice through their committees like the Sangam and Jan Adalat (people's court). Local support becomes crucial for the Naxalites for cadre recruitment, intelligence, logistics, and territorial control. Thus hereby, analysing the strategy to counter naxalism.

Background

In one of the deadliest Naxal attacks in recent times, hundreds of Maoists ambushed and massacred at least 25 CRPF personnel in Chhattisgarh's Sukma district and escaped with their AK-47 assault rifles. The "strong" 99-member CRPF battalion was on foot patrolling the interior road — the team was entrusted with the task of providing security to a road construction project — when it came under sudden attack.

Left Wing Extremism (LWE) is becoming more serious day by day as it is:

- Expanding at a rapid pace,
- LWE forces are becoming lethal in their actions, and
- They are organising themself into a structured guerrilla force.

Why naxalism is biggest threat to internal security?

The Naxalite threat is the biggest security problem for India's future as its effects are multi-layered. The Maoist movement highlights India's interior weaknesses, which makes India also vulnerable to external threats.

The Naxals' potential for violence has increased substantially with their acquisition of sophisticated weapons and expertise in the use of improvised explosive devices (IEDs). They have built this arsenal essentially by looting weapons from police/ landlords, purchasing them from smugglers, acquiring from insurgent groups like the NSCN (IM) and ULFA and also obtaining some weapons from Nepal.

The Naxalite groups' nexus with the other extremist organizations has added to the complexity of the problem. There are indications that the PWG cadres received training in the handling of weapons and IEDs from some ex-LTTE cadres. They have also some understanding with the National Socialist Council of Nagaland (I-M) to support each others' cause.



Another reason why the Naxalites are the biggest threat to security is because of the way the issue affects India's economic development. This is apparent in several ways. For example, the more the Maoists concentrate on the poor and marginalised regions of India, the more economic development (which is imperative to improving those regions' conditions) will be hampered. Furthermore, the Naxalite rebels are no longer just focussing on remote jungles but also on urban centres.

What are the problems with our counter-insurgency strategy and what should be done?

- Leadership: The difference between a crowd and organised discipline unit is 'leadership'. History is replete with the examples that wars are won and lost not by fighters but by the leaders.
 - Competent leaders: In the words of sun tzu, "Great results can be achieved with small forces provided those leading them are skilled at war." Thus we should ensure that our forces are led by leaders of due competence.
 - Sweat and train together: Even low intensity conflicts are not won by remote control leadership, rather won only when the leaders are right up there with the men. Leaders should "sweat together to bleed together" and "train together to fight together."
 - Lead by example: Leaders should lead by personal examples. If the leaders do not expose themselves to the danger how can they expect men to expose themselves to conflict situations?
 - Outsider leaders: In addition, CRPF on ground is led by Inspectors and Sub Inspectors. If a man who is not trained to fight a war is made a commander of the premier counter-insurgency force, then it is a recipe for disaster.
 - Responsibility and accountability: Responsibility and accountability are important. Unskilled leaders should be removed.

Dealing with Guerrilla warfare:

- **Fight with strategy: T.**E. Lawrence. Said, "Guerrilla warfare is more scientific than a bayonet charge." Mao said, "Those who fight without method do not understand the nature of guerrilla warfare." Thus fight with appropriate method and planning.
- Key elements of strategy: This strategy should have key elements of (a) Flexibility & Unpredictability, (b) Surprise, mobility and swift action, and (c) Deception.
- **Over-reliance on Standard Operating Procedures (SOPs):**
 - Over-reliance on SOPs leads to predicted routine and make forces less innovative. SOPs are broad guidelines and often become redundant after a period of time. Thus the response of the security personnel should be flexible.

Knowledge of terrain:

- Maoists are successful in their ambushes because of their deep understanding of the terrain, knowledge of where the security forces are. They use terrain effectively to surprise.
- Leaders should train the forces in reading the terrain, where the danger lies and where the opportunities exist.



Organization and unity of command:

- In CAPF's men are distributed arbitrarily by a Deputy Collector or a Superintendent of Police of a district who has little idea as to how a tactical unit operates.
- This leads to dilution of cohesion of the force.
- The principle of unity of command is must and cohesion of unit should be maintained at all cost.

> Division of Labour: Create specialisation and develop core teams to excel.

- If you expect the CRPF to rush from election duty to law and order to counter-insurgency operations, it is simply a misapplication of the force.
- Thus the counter-insurgency units should be separated from the rest of the force. There should be a clear distinction between counter-insurgency force and law and order units. Training of men and officers should be separate for both these forces since the mandate is different.
- It will build expertise and excellence. This is what the **principle of division** of labour says.

> Intelligence:

- It is easy to blame the CRPF but the root of the problem lies in poor intelligence.
- This is the reason for our CRPF personnel getting killed on a regular basis. Thus, this should be corrected.

▶ Reconciliation:

- Conflicts are rarely resolved or terminated by use of force. The ultimate objective of the use of force is reconciliation and surrender.
- Thus administration should involve NGOs and citizen committees for reconciliation.

➤ Good governance and socio-economic development (to remove conitions conducive to rise of LWE)

- WE should have administration at all levels i.e. panchayat, block, district and state level and the administration should be accountable, corruption-free and responsive. For this regular **social audit** should be carried out.
- Administration should solve the grievances of the people and ensure socioeconomic development (by undertaking Land Reforms, proper implementation of forest rights etc., development of markets where tribal can sell their agriculture produce, development of roads, communication, health, education) so that they don't fall into their propaganda.

Conclusion

Internal order and stability are necessary for a nation's economic development. For India to continue being able to withstand outside security threats, it must build up its infrastructure, its defence and its people. In terms of lifting its citizens out of poverty, India has a long way to go, and continued economic growth is integral to India's development as a strong global player. Due to these deficiencies the Naxalite activities are using up scarce resources on defence and internal security when it should be spent on areas such as social development.





ENVIRONMENTAL ISSUE

Carbon Tax



Putting a price on carbon is an essential part of any strategy to combat climate change, mitigate risks and capitalize on opportunities.

However, will it be feasible in India or not has been analysed in this article.

Introduction

The major countries of the world have committed to keeping the average global temperature change within 2 degrees Celsius above pre-industrial levels to avoid the worst effects of climate change. It has also been established in various scientific studies that any such warming of the planet will lead to increased natural calamities such as floods and cyclones, declined crop yields and ecological degradation. A large increase in global temperatures correlates with an average 5% loss in global GDP, with poor countries suffering costs in excess of 10% of GDP.

Thus to reduce greenhouse gas emissions and mitigate the effects of climate change concept of Carbon tax came up.

Concept of Carbon Pricing

Carbon pricing systems encourage innovation and help ensure sustained economic competitiveness.

A price on carbon helps shift the burden for the damage back to those who are responsible for it, and who can reduce it. Instead of dictating who should reduce emissions, where and how, a carbon price gives an economic signal and polluters decide for themselves whether to discontinue their polluting activity, reduce emissions, or continue polluting and pay for it. In this way, the overall environmental goal is achieved in the most flexible and least-cost way to society. The carbon price also stimulates clean technology and market innovation, fuelling new, low-carbon drivers of economic growth.

Forms of Carbon Pricing

There are two main types of carbon pricing: Emissions Trading Systems (ETS) and Carbon Taxes.

An ETS – sometimes referred to as a cap-and-trade system – caps the total level of greenhouse gas emissions and allows those industries with low emissions to sell their extra allowances to larger emitters. By creating supply and demand for emissions allowances, an ETS establishes a market price for greenhouse gas emissions. The cap helps ensure that the required emission reductions will take place to keep the emitters (in aggregate) within their pre-allocated carbon budget.

A Carbon Tax directly sets a price on carbon by defining a tax rate on greenhouse gas emissions or - more commonly - on the carbon content of fossil fuels. It is different from an ETS in that the emission reduction outcome of a carbon tax is not pre-defined but the carbon price is.



What is Carbon tax?

- Carbon tax is a form of pollution tax. It levies a fee on the production, distribution or use of fossil fuels based on how much carbon their combustion emits. The government sets a price per ton on carbon, and then translates it into a tax on electricity, natural gas or oil. Because the tax makes using dirty fuels moreexpensive, it encourages utilities, businesses and individuals to reduce consumption and increase energy efficiency.
- Carbon tax also makes alternative energy more cost-competitive with cheaper, polluting fuels like coal, natural gas and oil.

The Benefit of Carbon Tax:

Carbon tax offers social and economic benefits:

- It is a tax that increases revenue without significantly altering the economy while simultaneously promoting objectives of climate change policy.
- The carbon tax is the most practical method to reduce the fossil fuel consumption.
- It will help India to reach the committed INDC of 33% by 2030. >
- This will protect the environment and ensure good quality of air in cities especially cities like Delhi and Kanpur.
- A carbon tax is a step towards helping India meets their voluntary target to reduce the amount of carbon dioxide released per unit of gross domestic product by 25% from 2005 levels by 2020.
- The clean energy tax will help to finance a National Clean Energy Fund (NCEF).
- The carbon tax charges a fee based on the carbon emission. So, to reduce the fee, users try to use less of the fossil fuel.
- The alternative energy such as solar, hydro and wind energy are costlier than the fossil fuel energy. The carbon tax on fossil fuel makes the alternative energy competitive to the fossil fuel. It results in more use of alternative and clean energy. Perhaps, that will help India to promote the flagship programmes like International Solar Alliance, Start up India and Make in India by reducing use of non renewable fossil fuels.
- All the money raised by the tax can help subsidize environmental programs and clean energy.
- It can make the correct and more use of fund availability for the programmes like afforestion and ISA.

Problems related to Carbon Tax

- Production may shift to countries with no or lower carbon taxes (so called 'pollution havens'); the cost of administrating the tax may be quite expensive reducing its efficiency; Higher taxes may encourage firms to hide carbon emissions.
- Further a global carbon tax may curtail economic activity in the poor developing world because they can't afford the small increase in energy costs.
- Carbon taxes effectively increase the cost of fossil fuels in an effort to make non-fossil fuels more economically attractive. The technologies to significantly reduce greenhouse gas emissions from fossil fuels, however, are decades away and extremely costly. Instead, the only real way to reduce greenhouse gas emissions in the short run is to reduce energy use and economic output. Given current technologies, carbon taxes will result in less economic output.





Way forward

Government should follow the revenue-neutral carbon tax model. A revenueneutral carbon tax preserves the tax's price-incentive to reduce emissions but avoids the "income" effects that might drag down economic activity.

Revenue-neutral means that government retains little if any of the tax revenues raised by taxing carbon emissions. The vast majority of the revenues are returned to the public; with, perhaps, small amounts utilized to assist communities dependent on fossil-fuel extraction and processing to adapt and convert to low- or non-carbon economies.

Returning the carbon tax revenues to the public would also make it easier to raise the tax level over time.



ECONOMIC ISSUE

GST Rates and its Implications



The passage of the Constitutional Amendment Bill on GST has paved the way for introduction of GST in India, likely by July 1, 2017. The GST Council has finalised a four-tier GST tax structure of 5 per cent, 12 per cent, 18 per cent and 28 per cent, with lower rates for essential items and the highest for luxury and de-merit goods, including luxury cars, SUVs and tobacco products, that would also attract an additional cess. In this article we shall look broadly at structure of four tier GST tax structure, implication at aggregated and sectoral level and overall implications of GST rates.

What is GST?

GST is a single tax on the supply of goods and services, right from the manufacturer to the consumer. Credits of input taxes paid at each stage will be available in the subsequent stage of value addition, which makes GST essentially a tax only on value addition at each stage. The final consumer will thus bear only the GST charged by the last dealer in the supply chain, with set-off benefits at all the previous stages.

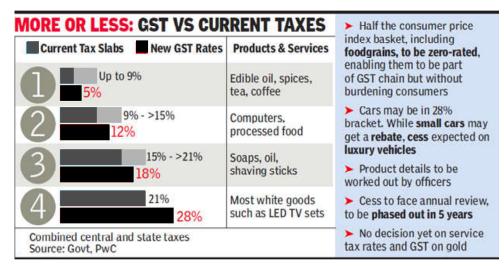
Anatomy of GST Rates

At classification level around one-fifth of the items are in GST exempted category, around one-fifth under 28% rate category and one-sixth under 12% category.

Most of the item shall come under 18% tax rate. Most of the food items have been exempted or fetch lowest rate of 5% which is important given high poor percentage in society.

Within services category luxury services and services considered to be anti-social like gambling are under 28% category.

Under the goods category, petroleum products, alcohol, electricity, real estate and several food subcomponents have been kept outside GST's ambit.





Under services, health and education, amongst some others, have been excluded.

Four products luxury cars, aerated drinks, tobacco and related 'paan' products would also fetch additional Cess.

The council has recently revised rates on 66 items such as pickles, sauces, fruit preserves, insulin, cashew nuts, school bags, colouring books, notebooks, printers, cutlery, agarbattis and cinema tickets, following representations from industry.

Restaurants, manufacturers and traders having a turnover of up to Rs 75 lakh can avail of the composition scheme with lower rates of 5%, 2% and 1%, respectively, with lower compliance, against Rs 50 lakh previously. A GST rate of 5% will be applicable on outsourcing of manufacturing or job work in textiles and the gems and jewellery sector. Bleaching and cleaning of human hair, a big industry in Midnapore, will not face any tax.

Implications on Various Sectors of GST Rates

Estimates suggest that there is likely to be no upward impact on inflation. Rather, if tax cuts are passed on and the input tax credit mechanism runs with efficiency, GST could help lower the inflation rate by 10-50bps. In terms

Some Cheer TAX RATE (%) Now Was Pickles, Ketchup, Sauces, Preserves 5 12 Cashew nuts Steel cutlery 12 18 School bags 18 28 Exercise books 12 18 Colouring books 12 Incense sticks 5 12 Insulin Movie tickets Above below ₹100 ₹100 to face 28% to face 18% GST rate on job work in textile, gems & jewellery cut to 5% from standard 18% PENDING AGENDA Next meeting | E-way bill to be taken up on June 18 **GST on lottery** to be decided

of growth impact, the near-term could be messy, with adjustment costs for the private sector grappling with inter-sector implications. Service providers, in particular, are likely to face an increased (and more complex) tax burden. Over the medium-term, the impact on overall growth is unambiguously positive.

The progressive tax structure would make sure that states do not face any revenue shortfall due to GST. It is likely that more comprehensive service tax coverage increases their revenues. Then, if any shortfall does remain, the Centre will take care of it.

Moreover, with a view to keep inflation under check, essential items including food, which presently constitute roughly half of the consumer inflation basket, will be taxed at zero rate. The cess is expected to provide additional resources to the central government to compensate states for losses incurred. This will be based on the compensation formula.

Impact on Important Sectors

Construction and Infrastructure: The composite supply of works contract in this sector will fall under the 18% GST rate with full input tax credit (ITC). The GST rate may seem higher than the current tax rates as the effective tax incidence for an average construction contract in the pre-GST era is typically in the range of 11-18%, which is lower in comparison to the announced GST rate of 18%. The difference is more pronounced for the construction services which fall under the service tax exemption category.

Despite higher rates, the sector is likely to benefit under GST regime from the availability of input tax credit. As under the current tax regime the benefit of input tax paid is not fully available, the benefits arising out of input tax credit on the rawmaterials available under the GST regime would result in an overall neutral tax incidence for construction services.

Cement prices are expected to go up marginally, as the GST Council has announced a tax rate of 28 per cent on the product. The cement industry says the rate is above what was expected, and the increase will most likely be passed on to consumers.



Hospitality sector: Goods and Services Tax (GST) rate levy on the hospitality sector is within the range of 2 to 28%. Hoteliers have termed it as a "killer step" for the tourism and hospitality industry, which is already reeling under rising costs of basic commodities, labour and the recent liquor ban on highways. It will certainly have an adverse effect on the industry, particularly for the mid and high category hotels which will fall under the 18 and 28 % GST rate.

Engineering, Capital Goods & Power Equipment: Introduction of GST is expected to improve the prospects of engineering, capital goods and power equipment (ECPE) sector by simplifying the tax structure. The complexity in this sector is that companies are involved simultaneously in manufacturing of goods and rendering of services. A comprehensive tax like GST which would combine the state and central taxes in a single structure and where tax credit would be available at each stage of production and final sale so that double taxation could be avoided. This would bring in more cost competitiveness to the domestic players.

Automobile sector: Currently taxes paid by car manufacturers are 27.6% to max 45.1% and the GST rates on automobile sector would be 28 %. So rates seem to be revenue neutral though gains would occur from easy compliance and less cascading effect.

Criticism of rates according to some experts

- It compromises on simplicity. The multiplicity of tax rates for services will add complexity to the compliance in the GST regime.
- Around 19% of services have been under the highest slab of 28% which caters to daily needs of middle class. Thus the middle class will now have to bear the brunt of higher prices.

Conclusion

A well-designed GST in India is expected to simplify and rationalize the current indirect tax regime, eliminate tax cascading and put the Indian economy on highgrowth trajectory. The proposed GST levy may potentially impact both manufacturing and services sector for the entire value chain of operations, namely procurement, manufacturing, distribution, warehousing, sales, and pricing.





ECONOMIC ISSUE

Evergreen Revolution in Agriculture

Father of the Green Revolution in India and renowned farm scientist M S Swaminathan has given the call for 'Evergreen Revolution'. He has made this observation in context with the 50 years of Green Revolution in the country. In this context we shall try to understand the term in a holistic way with related concepts and explore reasons for its introduction of evergreen revolution after successful adoption of Green Revolution in 60's.

What is Evergreen Revolution?

Swaminathan is an advocate of moving India to sustainable development, especially using environmentally sustainable agriculture, sustainable food security and the preservation of biodiversity, which he calls an 'Evergreen Revolution'.

Sustainable agriculture is the production of food, fiber, or other plant or animal products using farming techniques that protect the environment, public health, human communities, and animal welfare. This form of agriculture enables us to produce healthful food without compromising future generations' ability to do the same.

Why Organic Agriculture is important in this context?

It is a method of farming system which primarily aimed cultivating the land and raising crops in such a way, as to keep the soil alive and in good health by use of organic wastes (crop, animal and farm wastes, aquatic wastes) and other biological materials along with beneficial microbes (bio-fertilizers) to release nutrients to crops for increased sustainable production in an eco friendly pollution free environment. organic farming is a system which avoids or largely excludes the use of synthetic inputs (such as fertilizers, pesticides, hormones, feed additives etc) and to the maximum extent feasible rely upon crop rotations, crop residues,



animal manures, off-farm organic waste, mineral grade rock additives and biological system of nutrient mobilization and plant protection.





Organic agriculture is a unique production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity, and this is accomplished by using on-farm agronomic, biological and mechanical methods in exclusion of all synthetic off-farm inputs.

Why we need Evergreen Revolution?

Our population now exceeds one billion. Arable land is going out of agriculture all the time. Water resources are shrinking. Our ground water is getting depleted and in many cases polluted. The greatest internal threat to agriculture is now the problem of conserving our soil fertility, land and water.

This is the phase where Evergreen Revolution is required. This is where you have continuous advancement in productivity, but without associated ecological harm.

According to MS Swaminatha this strategy has three major preconditions:

- The first is a happy farming family. Scientists like me can give advice and materials, but the farmers are the ones who toil in the sun and rain and produce the food. So we should not only work for the consumer, but also think of the producer.
- The second ingredient is a sustainable farming system, not based on one crop alone. Almost every farm in India has one or two cows or buffaloes, or small ruminants like goat or sheep. These are part of farmer's life—crops, animals, fish, agro-forestry. A sustainable farming system is the very foundation of organic agriculture-some degree of animal husbandry, composting, organic manure and also crop rotation.
- The third pre-condition is sustainable food security. Although the Indian Government has huge quantity of wheat and rice in its warehouses, but incidence of hunger is high. Therefore jobs should be the bottom line of our agricultural policy. Where there is work, there is money, and where there is money there is food.

Swaminathan highlight the role of technology especially Eco-technology which includes five different technologies: biotechnology, space technology (particularly in weather satellites), nuclear technology (particularly probes for underground mapping), information and digital technology and management technology. This last, in definition, puts everything together into a management system for a farm which can be applied day by day.

Sarvodhya was a term coined by Gandhiji, meaning a win-win situation for all. According to MS Swaminathan India need Sarvodhya form of farming, where there is unity of purpose in spite of the diversity of methodologies, farming systems, climates, soil and needs.

Mahatma Gandhi said the pathway to achieve Sarvodhya is Anthyodhya, attention to the poorest person. So for a Sarvodhya farming world, the more affluent members will have to pay attention to those who are economically, socially and ecologically handicapped. The technological push must be matched by an ethical pull. If we don't have these two matching each other, then you can't make sustainable progress in the form of evergreen Revolution

Conclusion

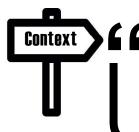
Green revolution was about increasing productivity with human/technological intervention like HVY seeds, irrigation, fertilizers, pesticides etc. However, the challenge of increasing productivity in Indian agriculture remains as population is rising but situation has become complex due to reducing water sources and land, climate change. In this context Evergreen revolution which depends on natural ways of doing agriculture in a sustainable way in order to meet the need of present generation without compromising on needs of future generation.





GOVERNANCE ISSUE

Bill on Right to Recall Legislators



BJP MP Varun Gandhi has introduced private member's Bill on the right to recall legislators. He has proposed an amendment to the election rules to introduce right to recall parliamentarians and legislators if 75% of their voters are dissatisfied with their performance. Hereby analyzing the concept of Right to Recall and provisions mentioned.

What is Right to Recall?

- Recall is basically a process whereby the electorate has the power to remove the elected officials before the expiry of their usual term.
- Thus recall confers on the electorate the power to actually 'de-elect' their representatives from the legislature through a direct vote initiated when a minimum number of voters registered in the electoral role sign a petition to recall.
- It is the least common of the three direct democracy mechanisms used globally. The three direct democracy mechanism are:
 - Right To Reject All Candidates,
 - Right To Recall Elected Representatives, and
 - Referendums on Government Legislations.

Present Status in India

- The concept is not alien to India as this system exists in some states like Bihar, Chhattisgarh and Madhya Pradesh where people can recall their corporators. In 2008, three presidents of municipal councils in Chhattisgarh were removed through this procedure.
- However, the process is difficult to initiate. E.g. in Bihar, two-thirds of the registered voters of a constituency have to sign a petition to initiate the process. In Chhattisgarh it is three-fourths.

Salient features of the bill:

- It gives the public right to recall its representative from the legislature within two years of being elected if 75% of them voted their dissatisfaction with his/her performance.
- The process can be initiated by any voter of the constituency by filing a petition before the Speaker. The petition has to be signed by at least one fourth of the total number of electors.

Comparative study with other nations

Right to recall is present in various jurisdictions across the world, for instance, United States (US), Canada, Venezuela, Philippines, Switzerland, British Columbia etc.



Arguments in favor of Right to Recall

- At present, voters can only hold their elected representative accountable after five years. Right to recall will ensure continuous accountability of the representative to the voters during the tenure of the office.
- If the people have the power to elect their representatives, they should also have the power to remove these representatives.
- It will further deepen the democracy.

Arguments against Right to Recall

- Firstly, policies take a certain time (ranging from 3 to 5 years) to deliver solutions to people. Thus this should not be seen as neglect of one's duties.
- Secondly, it may deter our representatives to make unpopular but necessary policy decisions which may yield long-term benefits.
- Not suited for MLA and MPs: The recall can work for corporator's who have a defined role in ensuring delivery of services. But is not suited for MP or an MLA as their role is much broader because they are part of a larger body. Thus it is difficult to set clear performance targets and hold them accountable.
- **Problem of Anti-defection law:** The anti-defection law mandates that MLAs and MPs vote on party lines. Now there could be instances when the party mandate is contrary to local interests. If they vote against party line they are on risk of being disqualified, if not then they are at risk of being recalled by the people of their constituency. Thus it can work best in places where members are elected as independents. Otherwise we should revoke the anti-defection law (except for the confidence vote) to remove this dilemma.
- Impractical for India: Given the number of people in an Indian constituency, recall is an impractical idea made fashionable by arm chair critics. According to Subhash Kashyap, former secretary general of Lok Sabha, a parliamentary constituency in India has 20 lakh to 30 lakh voters. If 50 percent of them need to petition for a recall through a signature campaign, it would be impractical to verify all signatures.
- Scenario in other countries: In most of the European nations and states of U.S. where recall option is available, history shows that hardly a couple of 'Recalls' have succeeded.
- Political parties can misuse it as political weapon against rival incumbents. For example, in 2003, the Democrats in the US had used the Recall against the Republicans in the California Recall. Opposition parties can start collection signatures to initiate a recall.
- India is always in election-mode due to the frequency of the assembly or the general elections which contributes to policy paralysis. Should we make it more complex?
- In India, the winning candidate generally has just 20-30 percent of the total votes. "Does that mean you will keep recalling all elected representatives as it is less than 50 per cent.

Way ahead

To encourage the process of the right to recall, legislative change is needed which seeks to introduce recall petitions, for elected representatives in the Lok Sabha and in respective Legislative Assemblies. While it is necessary to ensure that a recall process is not frivolous and does not became a source of harassment





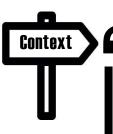
to elected representatives, the process should have several built-in safeguards such as an initial recall petition to kick-start the process and electronic-based voting to finally decide its outcome. Furthermore, it should ensure that a representative cannot be recalled by a small margin of voters and that the recall procedure truly represents the mandate of the people.

- The right to recall may be workable for the directly elected executive posts like corporators, but is difficult to implement in case of MLA and MPs. For ensuring their accountability we should strengthen the existing legislative process.
- And even in the case of directly elected executive posts, we should have the following conditions to make the recall system work.
 - Firstly, the person should be judged based on his/her performance to his/her constituency and not because of the popularity of political party.
 - Secondly, there should be a minimum grace period to judge the performance.
 - Thirdly, we should prevent the causal usage of recall process by making the initiating process difficult (by mandating that signatures of two-thirds electors are needed to initiate the process.



ENVIRONMENTAL ISSUE

Nauru Ratifies International Solar Alliance Treaty



During the sidelines of African Development Bank's annual meeting in Gandhinagar the world's smallest republic, the tiny island nation of Nauru — has become the sixth country to ratify the International Solar Alliance (ISA) Framework pact. Five more African nations — Comoros, Cote d'Ivoire, Somalia, Ghana and Djibouti – have committed to sign the Solar Alliance pact.

In this article we shall have an overview of ISA with special focus on pivotal role of India in forming the alliance. Secondly we shall analyze the importance of such a small country joining the alliance.

Introduction

There is no specific body in place to address the specific solar technology deployment needs of the solar resource rich countries located between the Tropic of Cancer and the Tropic of Capricorn. Most of these countries are geographically located for optimal absorption of the sun's rays. There is a great amount of sunlight year-round which can lead to cost effective solar power and other end uses with high insolation of almost 300 sunny days in a year. Most of the countries have large agrarian populations.

Many countries face gaps in the potential solar energy manufacturing eco-system. Absence of universal energy access, energy equity and affordability are issues common to most of the solar resource rich countries. Thus the concept of International Solar Alliance was proposed.

About International Solar Alliance

International Solar Alliance (ISA) is conceived as a coalition of solar resource rich countries. It will not duplicate or replicate the efforts that others [like International Renewable Energy Agency (IRENA), Renewable Energy and Energy Efficiency Partnership (REEEP), International Energy Agency (IEA), Renewable Energy Policy Network for the 21st Century (REN21), United Nations bodies, bilateral organizations etc.] are currently engaged in, but will establish networks and develop synergies with them and supplement their efforts in a sustainable and focused manner.

The alliance is a treaty-based inter-governmental organization. Countries that do not fall within the Tropics can join the ISA and enjoy all benefits as other members, with the exception of voting rights.

Focus Areas

To achieve the objectives, ISA will have five key focus areas:

It will encourage member countries to promote investment in solar technologies/ applications to promote income and welfare of the poor and make global environment more climate friendly;



- Formulate projects and programmes to promote solar applications together and with partnership of member countries and with cooperation from international organizations to ensure solar light for energy deprived households by the year 2022;
- Develop innovative Financial Mechanisms through long tenure financial resources from bilateral, multilateral agencies and other sources to reduce cost of capital;
- Build a knowledge platform, including a 24×7 e-portal for sharing of policy development experiences and best practices in member countries; and
- To promote partnerships among R&D centres of member countries for application oriented research & development and delivering technologies to people as well as capacity building through training & educational programmes and exchange of officials/ entrepreneurs/sector experts/ students/interns/ apprentices, user groups etc.

These focus areas will cater to not just grid connected solar power (Solar parks, Solar thermal projects, Rooftop solar projects, Canal top projects, Solar on water bodies, Farmers and unemployed youths as generators) but also off-grid and decentralised applications (Village electrification and mini-grids, Solar lanterns, Mobile chargers, Solar powered telecom towers, Milk chilling centres, Potters wheels, Solar spinner for weavers, street lights, Solar pumps, Solar heating/cooling, etc.). These activities will contribute significantly in employment generation in a decentralized manner at the local levels, and also in spurring economic activities.

Hence with this initiative solar energy will be utilized for economic development.

Significance

- It creates a collaborative platform for increased deployment of solar energy technologies to enhance energy security and sustainable development.
- It improves access to energy and opportunities for better livelihoods in rural and remote areas and to increase the standard of living.
- It will work with partner countries to formulate projects and programmes to accelerate development and deployment of existing clean solar energy technologies, the potential for which largely remaining untapped.
- It develops innovative financial mechanisms to reduce cost of capital and builds a common knowledge e-Portal.
- It also facilitates capacity building for promotion and absorption of solar technologies and Research and Development among member countries.
- It will encourage multilateral bodies like IRENA, REEEP, IEA, REN21, UN bodies, bilateral organizations, corporates, industry, and other stakeholders to contribute towards the goal of increasing utilization of solar energy in the member countries.

Role of India in ISA

The initiative was launched by India at the India Africa Summit, and a meeting of member countries ahead of the 2015 United Nations Climate Change Conference in Paris in November 2015. The Framework Agreement of the International Solar Alliance opened for signatures in Marrakech, Morocco in November 2016, and 121 countries have joined (though may not have ratified). The ISA is to be headquartered in India.

India has earmarked about \$2 billion to finance solar projects in Africa out of it commitment to provide \$10 billion of concessional lines of credit for projects in the continent.



Significance of Nauru signing the Deal

Nauru is a tiny island country in Micronesia, northeast of Australia in Central Pacific. Nauru, which has a population of just 10,000-odd and the highest point on its terrain is only 65 metres above sea level, is particularly vulnerable to the adverse effects of climate change. For example a rise in temperature and consequent melting of ice would result in increase sea level and possible submergence of the island.

Nauru has a hot and humid climate due to its proximity to the Equator this makes solar energy a viable option. Currently, 30 per cent of the country's needs are met through solar power installations and it has set a target to attain 50 per cent of energy production from renewable sources by 2020. In this context membership of solar alliance will assist small nation to achieve its target through R&D assistance and foreign Investments in solar sector.

Fiji, which had signed up earlier, has also completed the ratification process and will deposit its instrument in the next few weeks.

Ratification by Island nations also sends a strong signal to the global communities about the sincerity of the Island Nations towards their concern about climate change and to switch to a low-carbon growth path.

Conclusion

Climate change is not specific to any country but a challenge for the whole humanity. So, finding solutions to stop it is a combined responsibility for all countries and formation of ISA epitomize such a spirit. It gives a space to small Island nations to raise their concerns and at the same time ripe benefit of this alliance to leverage their solar energy targets. Nauru ratification of ISA treaty is a step in this direction.





ECONOMIC ISSUE

Credit Rating Agencies: Credibility and Accountability



Recently, policy makers in India has raised concerns that the global credit rating agencies (CRA) have not been upgrading India's sovereign credit rating despite its improving economic and political fundamentals, even as China was viewed favourably by the same agencies.

In this article we shall understand the meaning of CRA, issues raised against them domestically and Internationally and required reforms in present structure.

Credit Rating Agencies - Who are they?

A credit rating evaluates the creditworthiness of the borrower. It provides a measure of the likelihood that the borrower will repay its debt, which describes the risk of default, and therefore the risk of the borrower and the loan. This risk determines the required return on the loan – the interest rate. Because most investors are not adequately funded and resourced enough to adequately determine the credit rating of a borrower, they rely on the ratings provided by CRAs. In principle good ratings are supposed to allow for proper allocation of capital; while poor ratings result in over-lending, misallocation of capital, and investor losses. Thus, proper credit ratings are supposed to make capital markets efficient and underpin strong economic growth.

An agency may rate the creditworthiness of issuers of debt obligations, of debt instruments, and in some cases, of the servicers of the underlying debt, but not of individual consumers. Individual consumers are rated for creditworthiness not by credit rating agencies but by credit bureaus.

The debt instruments rated by CRAs include government bonds, corporate bonds, CDs, municipal bonds, preferred stock, and collateralized securities, such as mortgagebacked securities.

The issuers of the securities may be companies, special purpose entities, state or local governments, non-profit organizations, or sovereign nations.

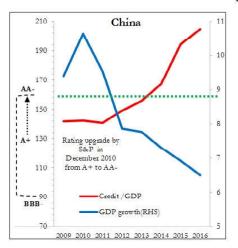
Issue raised by CEA in Indian context

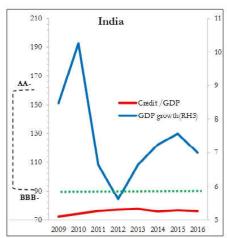
In Economic Survey 2016-17, Chief Economic Advisor has raised question on credibility and methodologies deployed by CRA through example of India and China.

China's credit rating was upgraded from A+ to AA- in December 2010 while India's has remained unchanged at BBB-. From 2009 to 2015, China's credit-to-GDP soared from about 142 percent to 205 percent and its growth decelerated. The contrast with India's indicators is striking.



Poor Standards: Ratings Agencies - China and India





Source: Government of India

Accountability and Credibility issues

Critics maintain that this rating, out looking, and watching of securities has not worked nearly as smoothly as agencies suggest. They point to near-defaults, defaults, and financial disasters not detected by the rating agencies' post-issuance surveillance, or ratings of troubled debt securities not downgraded until just before (or even after) bankruptcy, especially the 2007–08 subprime mortgage crisis.

During the subprime crisis, when hundreds of billion of dollars' worth of triple-A rated mortgage-backed securities were abruptly downgraded from triple-A to "junk" status within two years of issue, the CRAs' ratings were characterized by critics as "catastrophically misleading" and "provided little or no value".

The fact that the issuer pays for the rating provides a strong bias for a higher rating. Because the borrower pays, not the lender, the built-in incentive is to serve the interest of the borrower and to assign a better/higher credit rating. This clearly provides a conflict of interest, as the interest of the lender is not really protected and the lender has no recourse for a bad rating. CRAs have also been the subject of controversy during the Euro-zone sovereign debt crisis. They have been accused both of failing to predict the crisis in the first place, and then of precipitating it by downgrading the ratings of Euro-zone sovereigns too far and too fast.

Explanations of flaws

- The methodologies employed by agencies to rate and monitor securities may be inherently flawed. For instance, a 2008 report by the Financial Stability Forum singled out methodological shortcomings—especially inadequate historical data—as a contributing cause in the underestimating of the risk in structured finance products.
- The ratings process relies on subjective judgments. This means that governments, for example, that are being rated can often inform and influence credit rating analysts during the review process.
- The rating agencies' interest in pleasing the issuers of securities, who are their paying customers and benefit from high ratings, creates a conflict with their interest in providing accurate ratings of securities for investors buying the securities.

Oligopolistic Structure

Credit rating is a highly concentrated industry, with the "Big Three" credit rating agencies controlling approximately 95% of the ratings business. Moody's Investors





Service and Standard & Poor's (S&P) together control 80% of the global market, and Fitch Ratings controls a further 15%. Ratings agencies have been criticised for having too much clout in jittery markets during the financial crisis. They were widely attacked for failing to warn of the risks posed by certain securities, in particular mortgagebacked securities. An increase in competition could increase the quality of ratings.

Reforms needed

The modern credit rating system is fraught with problems that have already resulted in trillion-dollar losses and untold suffering by many nations. These problems extend to municipal, corporate, and structured-finance ratings. The system has proven to be a massive failure and needs to be entirely overhauled. The reform must necessarily provide for more transparency, more competition, and more flexibility. Experience during the financial crisis has also heightened concerns that rating agencies' decisions may be subject to conflicts of interest. Since their revenues are predominantly driven by rating fees earned from issuers, there is a concern that CRAs devote disproportionate resources to chasing new business and rating new products, rather than improving their analysis of existing instruments. Furthermore, the revenue incentives of a CRA are such that ratings may be biased upwards (inflated) so as to meet an issuer's expectations and thereby gain or keep its business.

First there is a need to rank the CRAs in terms of performance, in particular the accuracy of their ratings. Second, there is a need to facilitate the ability of investors to hold CRAs accountable in civil lawsuits for inflated credit ratings, when a CRAs knowingly or recklessly fails to conduct a reasonable investigation of the rated security. Third, there is a need to ensure CRAs institute internal controls, credit rating methodologies, and employee conflict of interest safeguards that advance rating accuracy. Fourth, regulators should use their inspection, examination, and regulatory authority to ensure CRAs assign higher risk to financial instruments whose performance cannot be reliably predicted due to their novelty or complexity.

Conclusion

Governments and regulators need to take decisive action now and introduce clear regulations and accountability in order to avoid a repetition of a financial market crisis fuelled by inflated credit ratings and grievances of emerging market economies like India which are a victim of flawed methodologies. In this context, recent decision by Russia and India to establish a Independent CRA is a step in right direction.



ECONOMIC ISSUE

Abolishing FTPB: Will this Help?



In February, Finance Minister promised in his Budget speech to abolish the Foreign Investment Promotion Board, and recently Union Cabinet has approved its 'phasing out'. The government believes that once the Board is history, red-tapism will shrink, ease of doing business will improve and investors will find India more attractive. With the abolishment of FIPB, Department of Industrial Policy and Promotion under the Commerce Ministry is now expected to formulate a standard operating procedure to process foreign direct investment applications in 11 sectors that are still not in the automatic FDI approval list. The department would have to be consulted by line ministries, which have been empowered to take 'independent' decisions on investments proposed in their domains.

In this article we shall look at different aspects of FIPB and impact of this decision of incoming FDI.

Background

India is having a well-designed Foreign Direct Investment regulation regime. FDI is regulated through various norms. A minimum lock in period, minimum capital for investment, sectoral limits and most importantly regulation of entry into approval/automatic route are the important regulations.

In the case of entry regulations, FDI entry is made under two categories – automatic route and approval route. Approval from the government is mandatory for some type of investment. For this, approval institutions/bodies are created. The Foreign Investment Promotion Board is the most important approval body as it can consider FDI below Rs 5000 crore. Above this amount, the Cabinet Committee on Economic Affairs is the approval authority.

What is FIPB?

The FIPB (Foreign Investment Promotion Board) is the designated institution which considers the FDI proposals that require government approval. It also grants composite approvals involving foreign investment/ foreign technology. FIPB is located in the Department of Economic Affairs, Ministry of Finance and the Finance Minister is in charge of the FIPB.

Constitution of FIPB

Though the FIPB is situated in the Ministry of Finance, it comprises of the Secretaries of main Ministries of Government of India. The Secretary of Department of Economic Affairs, Ministry of Finance will be the Chairperson of the FIPB. Secretaries of DIPP, Department of Commerce (both in the Ministry of Commerce and Industry), Secretary of Economic Relations, Ministry of External Affairs, and Secretary of Ministry of Overseas Indian Affairs are members of FIPB.



What are the functions of the FIPB?

- To quickly approve the foreign investment proposals.
- To review the FDI polices and to communicate with other agencies such as the Administrative Ministries in order to set up guidelines that are transparent and which encourage FDI into the various sectors.
- To look over the implementation of the various proposals those have been approved by it.
- To take up such activities that encourage FDI into the country such as establishing contracts with international companies and also inviting them to invest in India.
- To communicate with government, non-government and industry in order to increase the flow of FDI into the country.
- To identify the various sectors that requires FDI.

Why government proposed for its abolishment?

Over the years, increasing liberalisation of the country's FDI regime has resulted in more and more FDI through the automatic route. The FIPB has lost its erstwhile preeminence and the discretionary power. Bureaucratic decision doesn't inspire much confidence within foreign investors and create negative Investor Sentiments.

Decision to scrap this institution would show seriousness of present regime in creating enabling environment. This is in line with other reforms taken in recent past.

About 90 per cent of the FDI is coming through automatic route and only 10 per cent has to go through the Foreign Investment Promotion Board (FIPB). Further in most of the foreign investment proposals under the government approval route, an investor has to seek identical approvals.

With the abolition of the FIPB, the proposal can be cleared by the ministry concerned itself. Commenting on the move, which is likely to reduce M&A timelines.

This will reduce red-tapism.

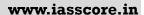
Will abolishment of FIPB usher ease of doing business?

As per recent news in media, CBI has booked people for influencing decision of FIPB for personal gains. This indicate that decision made by FIPB were not merit based. So abolishing such a institution shall indeed reduce red-tapism, and increase ease of doing business. However, the success of this decision shall depend on how effectively this decision shall curb or prevent such tendencies in line ministries.

Also efficacy of this move will be determined by the ability of individual ministries (and sectoral regulators which may be involved in the ultimate decision) to exercise 'discretionary' powers without fear, favour or the cover provided by a collective decision-making body. Bureaucrats are likely to remain cautious till the government carries out changes. The government has promised anti-corruption laws like Prevention of Corruption Act to protect them from the wrath of auditors and investigative agencies for bona fide decisions taken in the line of duty.

The trouble is that even where FDI limits have been raised significantly; there are riders and rules attached that officers need to interpret for each case. Cumbersome rules, not the FIPB, have been responsible for a less than enthusiastic response from foreign investors in some sectors. For instance:

Global insurers can hold up to 49% ownership in Indian ventures but only if Indians retain management and control over these entities — this is an onerous definition of control that has inhibited deal-making.





- Despite allowing 100% FDI in food retail, rules prohibit foreign players from using a small fraction of their shelf space for non-food items, affecting investment plans.
- On the other hand, archaic land acquisition and labour laws continue to make it difficult for large factories to come up.

Conclusion

In order to increase foreign investment given that domestic investment is below optimal due to excess capacity and twin balance sheet problem, it is necessary to improve ease of doing business and abolishing FIPB is one of these steps in right direction. However, in order to make things reasonable for FDI it is also important to remove unreasonable conditions and amend legislations regarding land acquisition and prevention of corruption Act.





GOVERNANCE ISSUE

Law Commission's 268th Report on Bail Reforms



The 21st Law Commission of India, headed by Justice BS Chauhan submitted its 268th report titled "Amendments to Criminal Procedure Code, 1973 – Provisions relating to Bail". According to the report the arbitrariness in exercising judicial discretion while granting bail are compelling reasons to examine the issue of bail and to chart a roadmap for further reform. It indicated that overcrowding of prisons may be due to inconsistency in the bail system as 67% prison population is comprised of undertrials. Hereby, analysing the provisions related to Bail in India and recommendations proposed.

What is bail?

- The Code of Criminal Procedure 1973 (Cr.P.C.) does not define the term "bail" although offences are classified as bailable and non-bailable.
- Bailable offence: These are less serious offences and any person accused of committing these is entitled to be released on bail as soon as s/he is willing to furnish bail.
- Non-Bailable offences: These are serious offences. When accused of committing non-bailable offences, a person can only be released on bail by the court if it is satisfied that the person shall attend the court to stand trial; will not tamper with evidence or influence witnesses or obstruct police investigation in any manner; will not commit any other offence or hinder the interest of justice.

What are the key observations made in this report?

- The present system of bail in India is "inefficient' and 'inadequate' to accomplish its purpose as applying for bail and pondering over bail applications forms the most accessed part of the criminal justice system.
- It has become the norm for the rich and powerful to get bail with ease, while others languish in prison. The principle of "bail is the norm and jail the **exception**" is limited in its application to the powerful and affluent only.
- Inconsistency in the grant of bail is one the of main reason that 67% of the current prison population is made up of undertrials.
- Even when given bail, most of the prisoners remain in prison because they are unable to afford bail bonds or provide securities.

What are the key recommendations of the report?

Avoid needless arrest: Police should avoid needless arrests and magistrates should avoid mechanical remand orders.



- Fair and evidence-based bail: Those administering criminal justice should ensure that that bail practices are "fair and evidence-based". Decisions about custody or release should not be influenced by factors such as gender, race, ethnicity, financial conditions or social status.
- **Inform about the bail:** When a person is arrested without a warrant the arresting officer should inform the person about the available legal remedies including applying for bail. Such advice should be given in the language that person understands and in an oral and written form.
- **Speed up the bail process:** Bail applications should be decided by subordinate courts within a week. High courts should frame the rules accordingly.
- Release of under-trials: Amend the bail provisions under Section 436A of the CrPC to ensure early release of undertrials.
 - For offences with punishments up to seven years: Those who had completed one-third of the maximum sentence for offences up to seven years should be released.
 - For offences with punishments more than seven years: Those who are awaiting trial for offences punishable with imprisonment of more than seven years should be let out on bail if they had completed half their sentence.
- Issue of non-payment of surety by poor people:
 - In case an accused is granted bail but is not able to furnish sureties within 30 days (as he is poor) and moves an application for varying the bail conditions, the court should hear the case accordingly.
 - If the investigating officer founds that he is not in a position to pay surety then that person should be allowed bail without payment of surety.
- **Bail in economic offences:** Courts should not opt for a "liberal approach" while deciding granting of bail in cases of economic offences.
- Role of Public Prosecutor: In 2003, the Malimath Committee report on Reforms in the Criminal Justice System remarked "Victims do not get the legal rights and protection they deserve, to play their just role in criminal proceedings." With public prosecutors serving as the spokespersons for the victims, the victims' needs and interests aren't directly represented before the court. It is here that the Law Commission recommends how prosecutors should carry out their role so that victims' voices and interests are not drowned out. It enjoins upon the Public Prosecutor to consult the victim and thereafter submit a 'Victim Impact Assessment' report wherein any concerns of the victim along with the information on physical, mental, social impact of the crime and the impact bail may have on the victim may be briefly stated. Moreover, following the UK model, the Commission also requires the prosecutors to record all details- such as the history of the arrestee, intention, evidence of violence and other relevant factors, while exercising discretion during arguments on whether bail should be granted or refused.
- Rules related to Economic Offences: All forms of economic offences which include tax evasion, customs offences or bank fraud should be dealt with strictly and provision for restricted bail in such offences should be incorporated in the Criminal Procedure Code or appropriate special statutes for the purpose of granting or refusing bail.





Bail in Special laws: It has been suggested that in terrorism laws, NDPS law etc., there should be a stricter scrutiny in granting the bail and only in exceptional cases bail should be granted.

What is the view of legal experts on these the recommendation made in the 268th report?

- Legal experts have welcomes the suggested reforms of India's dysfunctional criminal justice system.
- Providing relief to undertrials will not only be a humane move, but it will also reform present system of long periods of incarceration for alleged petty crimes which give rise to hardened criminals.
- So government should accept the recommendations. But we should also keep in mind what the law commission stated: "Bail law reform is not the panacea for all problems of the criminal justice system like overcrowded prisons or unjust incarceration of the poor. The ultimate solution lies in expediting the trial process."



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ECONOMIC ISSUE

Fugitive Economic Offenders Bill, 2017



In order to tighten the noose on economic offenders and defaulters who flee India, a draft Fugitive Economic Offenders Bill, 2017, which will empower the government to confiscate any property owned by such person in India. The Bill shall act as a deterrent against high value offenders who make a mockery of legal system and rule of law.

In this article, we shall look at existing provisions in various law and lacunas in them which undermine effective handling of such cases and how new law shall aid in reversing the status quo.

Current Legal Structure lacunas and need for a new bill

There have been several instances of economic offenders fleeing the jurisdiction of Indian courts. The absence of such offenders has several deleterious consequences—

- ▶ It hampers investigation in criminal cases.
- ▶ It wastes precious time of courts of law.
- ► It undermines the rule of law in India.

Further, several such cases of economic offences involve non-repayment of bank loans thereby causing strain on the banking sector in India. Existing civil and criminal provisions in law like SARFAESI Act, RDDBFI Act and Insolvency and Bankruptcy Code, 2016 are not entirely adequate to deal with the severity of the problem.

The civil provisions deal with the issue of non-repayment of debt. While effective in serving this purpose, they make no special provisions to deal either with: (a) high-value offenders; (b) those who might have absconded from India when any criminal case is pending.

In case of such absconders, the general provision pertaining to "proclaimed offenders" under Section 82 of the Code of Criminal Procedure, 1973 may be used. However this provision has certain key drawbacks when applied to high-value economic offenders. In large defaults, criminal proceedings are likely to be in several criminal courts across the country where assets are located. This multiplicity of proceedings may lead to conflicting orders of attachment by different courts. Second, the whole process of coordination is time consuming. As a result of such delays, such offenders can continue to remain outside the jurisdiction of Indian courts for a considerable period of time.

The Prevention of Money Laundering Act, 2002 (PMLA Act) provides for confiscation of property derived from or involved in money laundering. On conviction in the trial, the property stands confiscated. However, the provision for confiscation being available consequent to the conclusion of trial can rarely be used expeditiously. Further,



the purpose for such confiscation is as punishment for the offence committed and not strictly as a deterrent for any absconding accused to return to India.

In order to address these lacunae and lay down measures to deter economic offenders from evading the process of Indian law by remaining outside the jurisdiction of Indian courts, the Fugitive Economic Offenders Bill, 2017 is being proposed.

Analysis of new Bill

The Bill makes provisions for a court of law ('Special Court' under PMLA Act) to declare a person a Fugitive Economic Offender.

A Fugitive Economic Offender is a person who has an arrest warrant issued in respect of a scheduled offence and who leaves or has left India so as to avoid criminal prosecution, or refuses to return to India to face criminal prosecution.

A scheduled offence refers to a list of economic offences contained in the Schedule to this Bill.

Further, in order to ensure that courts are not over-burdened with such cases, only those cases where the total value involved in such offences is 100 crore rupees or more, is within the purview of this Bill.

This bill will ensure:

- Any property that is a proceed of crime that the person is accused of, as well as any property owned by such person in India shall stand confiscated and vested in the Government of India.
- Second, at the discretion of any Court, such person or any company where he is a promoter or key managerial personnel or majority shareholder, may be disentitled from bringing forward or defending any civil claim. If at any point of time in the course of the proceeding prior to the declaration however, the alleged Fugitive Economic Offender returns to India and submits to the appropriate jurisdictional Court, proceedings under this Act would cease by law.

It must also be noted that the provisions of United Nations Convention against Corruption (ratified by India in 2011) recommends non-conviction-based asset confiscation for corruption-related cases. The Bill adopts the same.

All necessary constitutional safeguards in terms of providing hearing to the person through counsel, allowing him time to file a reply, serving notice of summons to him, whether in India or abroad and appeal to the High Court have been provided for. Further, provision has been made for appointment of an Administrator to dispose of the property to satisfy creditors' demands. Where such process has already commenced under the IBC, RDDBFI Act or SARFAESI Act, the overlap has been minimised and the procedures harmonised.

Conclusion

It is widely felt that the spectre of high-value economic offenders absconding from India to defy the legal process seriously undermines the rule of law in India. It is necessary to provide an effective, expeditious and constitutionally permissible deterrent to ensure that such actions are curbed. To serve these ends, this Bill is being proposed.



GOVERNANCE ISSUE

Cattle Slaughter



Environment ministry has notified the Prevention of Cruelty to Animals (Regulation of Livestock Markets) Rules, 2017 on May 26, 2017 according to which the sale of cattle for slaughter at animal markets has been banned by the centre across the country. These rules have been notified under the Prevention of Cruelty to Animals Act, 1960. Hereby, analyzing the rules notified and implications of it.

Provisions related to Cattle slaughter in the Constitution

Article 48 in the Indian Constitution suggests that states should consider preventing cattle slaughter, but provides no specific enforceable laws or directives on the subject. All agricultural policy, including cattle slaughter, is governed individually by each Indian state. Many Indian states and union territories address cattle slaughter and the interstate movement and trade of live cattle and animal products. However, because there are no central or federal laws for cattle slaughter, most states and union territories have developed dissimilar legislation, including creating different legal definitions for calves, bulls, and bullocks.

Most state legislation prohibits cattle slaughter for all ages, including for both female and male calves. For example, Gujarat, Madhya Pradesh, Punjab, Rajasthan, Maharashtra, Himachal Pradesh, Jammu and Kashmir, Haryana, and Delhi, prohibit cattle slaughter, including bulls and bullocks of all ages. However, Assam and West Bengal permit cattle slaughter if the animal is at least 14 years of age and receives a 'fit-for-slaughter' certificate from the local state authorities. Kerala allows for cattle slaughter for animals that are unfit for work, cannot breed, or are permanently injured and over 10 years old. Arunachal Pradesh, Meghalaya, Manipur, Mizoram, Nagaland, Tripura, and Lakshadweep, a union territory, have not enacted any regulations or laws that address or specifically prohibit cattle slaughter. Most states that prohibit cattle slaughter can arrest an alleged perpetrator without a warrant; Delhi, Goa, Puducherry, Punjab, and Uttar Pradesh can also deny bail.

However, the centre has notified the rules related to the Cattle slaughter under the Prevention of Cruelty to Animals (Regulation of Livestock Markets) Rules, 2017 has been issued by centre which applied to the whole India, except Jammu and Kashmir.

Salient features of Prevention of Cruelty to Animals (Regulation of Livestock Markets) Rules, 2017

- Banned sale of cattle for slaughter at market: Under the rules, Centre has banned the sale of cattle — bulls, cows, buffaloes, steers, heifers and camels for slaughter at animal markets across the country.
- **Restrictions on sellers:**
 - Those who wish to sell cattle can do it only after formally stating that the animals have not been "brought to the market for sale for slaughter".



Restriction on buyers:

- **Verification:** Buyers of cattle at animal markets will have to verify they are agriculturalists.
- **Six month restriction:** They will also have to declare that they will not sell the animal/s for a period of six months from the date of purchase.

Restrictions on animal markets:

- **DAMMC:** District Animal Market Monitoring Committee (DAMMC) to be constituted to regulate cattle markets. DAMMC will be headed by a magistrate.
- **Registration with DAMMC:** Every new cattle market will have to register itself with the DAMMC within three months.
- Cattle smuggling: To inhibit smuggling, animal markets may not function within 25 km of a State border and 50 km of an international border.

Screening of animals:

The rules provide for hiring of veterinary inspectors who shall screen the animals before they enter a market for trade.

Prohibition on cruel practices:

- Cruel practices have been prohibited including slaughter, cutting the ears of buffaloes and painting of horns.
- **Caging:** DAMCC will have to ensure that no animal is kept in a cage that is unsuitable for it's size.

Arguments in favor of Rules

- This notification follows a Supreme Court directive to the government to recommend ways of preventing cattle smuggling.
- According to government, these rules will:
 - Weed out "middlemen" from the supply chain linking farm-heads to slaughter houses,
 - Improve traceability of zoonotic diseases,
 - Curb illegitimate slaughter and smuggling, and
 - Put the onus on cattle-owners to dispose of their animals responsibly.
- It will protect the animals from cruelty. It is envisaged that welfare of cattle dealt in the market will be ensured and that only healthy animals are traded for agriculture purposes for the benefits of the farmers. The livestock markets are intended to become hubs for trade for animal for agriculture through this process and animal for slaughter will have to be bought from the farmers at the farms. The notified rules will remove the scope of illegal sale and smuggling of the cattle which is a major concern. The specific provisions apply only to animals which are bought and sold in the notified live stock markets and animals that are seized as case properties. These rules do not cover other areas.

Criticism of Rules

Not constitutional:

Against Article 19(1)(g): The restriction on trade of cattle or carcasses in livestock markets is also against the fundamental right to occupation, trade or business under Article 19(1)(g). Only time will tell whether the courts hold it these restrictions as "reasonable."



State subject: Despite this being a state subject, these central rules will apply across the whole country.

Economic impact:

- The move will cripple the buffalo meat export industry. India is the secondlargest beef exporter in the world.
- The move will cripple the leather goods traders. The buffalo meat industry supplies raw material worth \$5.5 billion to the leather industry.
- According to critiques, 90% of slaughtered buffaloes are bought and sold in animal markets. Thus enforcing the rules will cripple the trade.
- It will negatively affect the livelihood of millions of people engaged in beef production and trading.

Framed without consultation:

The move is arbitrary as none of the stakeholders was consulted on the issue. Inspite of having huge economic impact, the government did not consulted the industry.

Interference with dietary habits:

- The rules when implemented will seriously impact the dietary choices of millions of people.
- The PCA explicitly recognizes that animals may constitute "food for mankind". It only prohibits the "infliction of unnecessary pain and suffering" when animals are consumed as food.
- Thus on what ground can the slaughter of any animal for food be prevented.
- It will deprive ordinary Indians' access to relatively cheap meat.

Cumbersome rules:

- The rules framed for the sale of cattle is very cumbersome.
- For example, buyers must verify that they are agriculturists. Sellers must also declare that the cattle brought to the animal market is not for slaughter.

Rule-issuing agency:

Experts have also argued that as the main subject of the notification was the regulation of livestock markets, then why were the rules issued by the Ministry of Environment and not by the Department of Animal Husbandry under the Ministry of Agriculture, which deals directly with this issue.

The move will make the whole exercise of raising such animals remarkably costly.

- For instance, estimates vary between Rs 60 Rs. 120 per head per day in terms of the money required for the upkeep of a cow or a buffalo.
- But most farmers keep the cattle only till they are of any use as a milch animal — roughly eight years — and sell them after that. Animal markets provide a seamless manner in which this can be done. In their absence, farmers will find it impossible to take care of these animals as it's just not economically viable for them.
- Should have allowed sale of animal about to die: The rules take away the rights of the owner to even sell the carcass of an animal dying of "natural causes" in the market. The rules prescribe that the carcass will be incinerated and not be sold or flayed for leather.





It will be adverse for the consumers who will have to pay more for every related product, from milk to meat.

Impact on farmers

The right of farmers to life and livelihood is at stake: their dairy livelihoods and bullock-based agricultural livelihoods stand to be completely destroyed with this cruel law - cruel for farmers and cruel for animals. Farmers rear their cattle and buffaloes for milk, manure and work, and then sometimes sell their animals for multiple reasons and purchase new animals, if they wish to. This law assumes that there is always a farmer ready to purchase another's cow or bullock. This is simply not true. Being a farmer does not automatically imply that you wish to own or rear animals. Furthermore, it assumes that a farmer will be willing to buy an unproductive cow, buffalo or bullock which reaches the market. There are times during the agriculture cycle when many farmers sell their work bullocks and there are scarce buyers; similar is the case with milch cows and buffaloes.

Yet even when no other farmer is a willing buyer, the farmers who sells their cow, bullock or buffalo are confident that their animals will fetch a good price in the market because of traders who are involved in the trade of animals for slaughter. This is particularly true in the states with no ban on transportation and/or slaughter of cattle and buffalos. The so-called 'smuggling' of animals occurs precisely from those states with stringent bans on slaughter and trade of cattle to those states with no bans, as there are desperate farmers who desire to sell their unproductive animals and get some resale value. The new rules will stop all trade of bovines for slaughter and thus result in a complete drying up of buyers.

Concluding Remark

We should retain most of the rules prohibiting the cruel treatment of animals. But rules related to ban on the sale of cattle for slaughter in animal markets must not impact the livelihoods of people depended on them.



ECONOMIC ISSUE

New Coal Linkage Policy



A new coal linkage policy to ensure adequate supply of the fuel to power plants has received approval from the Cabinet Committee on Economic Affairs. The policy has been named Shakti or the Scheme to Harness and Allocate Koyla (Coal) Transparently in India and aims to auction long-term coal linkages to power companies. It is expected to revive 30,000 Mw capacity of power plants in the country, which are awaiting fuel supply.

In this article we shall look at importance of coal in current installed capacity and understand meaning of coal linkages and it's far reaching implications.

Importance of Coal in Power Generation

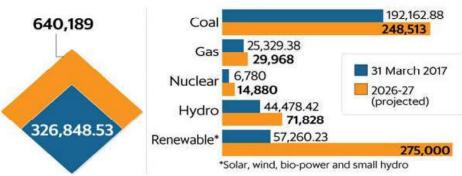
Coal is the widely used input for power generation in the country with nearly 58% of the electricity is produced using coal. As on 31 March 2015, India had estimated coal reserves of 306.6 billion metric tons, the fifth largest coal reserves in the world. India is the fourth largest producer of coal in the world, producing 536.5 million metric tons (591.4 million short tons) in 2014. However, due to high demand and poor average quality and also due to lower coal production in the country by CIL, India is forced to import high quality coal to meet the requirements of Thermal plants.

India's changing energy mix

India is moving towards a robust energy mix, focusing on sustainable energy sources such as solar and wind. By the end of 2026-27, India is projected to get 56% of its installed power capacity from clean energy sources.







Source: Central Electricity Authority, Draft National Electricity Plan

What does coal linkage policy means?

The coal's availability is not adequate and international price is high compared to the domestic price. Inadequate domestic coal, rising imports and high price for imported coal necessitates government intervention while allocating the available coal at reasonable prices among power producing firms.



To solve the problem government has designed coal linkage policy that allocates coal among different coal using thermal power plants, with the active guidance of state governments.

Coal linkage policy is a central government designed guidelines for the allocation of coal among thermal power firms. Under the new coal linkage policy, a state's coal requirement would be clubbed and assigned to the respective state or state-nominated agencies. The state would, then, award coal linkage according to applicant's need, efficiency and cost of power from the power plants in its territory.

For Independent Power Producers or private players having PPA based on imported coal, shall be made available through a transparent bidding process. The auction done on the basis of linkage allocations to IPPs will result in cheaper and affordable power for all.

The new policy also allows coal swaps from inefficient plants to efficient plants. The swap also can be made between plants situated away from coal mines to minimise coal transportation costs and thereby cost of power.

Salient Features of the Policy

- This policy will award fuel supply agreements to coal plants already holding letters of assurance (LoAs). Letter is issued to new consumers on being approved by the appropriate authority, based on recommendation of a committee constituted Specific terms & conditions of the LoA to be complied with within a stipulated time period for being eligible to enter into FSA for commencing coal supply.
- Thermal plants holding LoAs will be eligible to sign fuel supply pacts under the new policy after ensuring that all the conditions are met.
- Coal linkages would be awarded to state-owned power distribution companies (discoms). These, in turn, would assign linkages to:
 - State or central power generation companies via allocation, and
 - Private units through auction.
- The Independent Power Producers (IPPs) participating in the auction will bid for discounts on the existing tariff and this would be adjusted from the gross coal
- Power plants will have to give discount on their tariffs to get linkages. This could lead to under-recovery by the units, but it is still better than no fuel supply.

Implication of this Decision

The policy though has brought immediate cheer for the private power units which were awaiting fuel supply. Most of the thermal power projects were on the verge of turning into non-performing assets (NPAs), as they could not sell power despite having PPAs because they lacked fuel supply. The policy would also benefit future projects which don't yet have any Purchasing Power Agreement. A power purchase agreement (PPA), or electricity power agreement, is a contract between two parties, one which generates electricity (the seller) and one which is looking to purchase electricity (the buyer). The PPA defines all of the commercial terms for the sale of electricity between the two parties.

One of the biggest beneficiary of the policy will be projects with imported coal-based PPAs. This will provide an opportunity for them to migrate to domestic coal, thereby reducing their exposure to price vagaries of imported coal.

Earlier, the process of selecting companies that were assured coal supply was as subjective as the process for allotting captive coal blocks. This decisions signal the government's commitment to good governance in coal sector.



Conclusion

In a broader context, basis infrastructure including appropriate availability of electricity is necessary to increase economic activity in the economy. The policy of coal linkages for thermal power plants tries to address supply bottleneck in thermal production. The policy shall lead to efficient utilization of power plants to its full potential.





SOCIAL ISSUE

Health Protection Scheme



The Health Protection Scheme (HPS) was announced in the Union Budget 2016 as extention to the Rashtriya Swasthya Bima Yojana (RSBY). HPS is finalised after considering possible distortions in medical insurance schemes and looking at models that have worked.

Hereby analyzing the Rashtriya Swasthya Bima Yojana, its lacunaes and steps needed to implement the health insurance policy.

Introduction

In India more than two third of expenditure on health is through Out of Pocket (OoP) which is the most inefficient and least accountable way of spending on health. The Unorganized Workers Social Security Act (2008) was enacted by the Parliament to provide for the social security and welfare of the unorganized workers. This act recommends that the Central Government should provide social security schemes to mitigate risks due to disability, health shocks, maternity and old age which all unorganized workers get exposed to and are likely to suffer from.

Supply side financing on health alone has not been found to be successful in reducing OoP expenditure on health substantially and therefore, to test the demand side financing approach, Government of India, decided to introduce Rashtriya Swasthya Bima Yojana (RSBY) a Health Insurance Scheme for the Below Poverty Line families with the objectives to reduce OoP expenditure on health and increase access to health care.

About Rashtriya Swasthya Bima Yojana

- RSBY was launched in early 2008 and was initially designed to target only the Below Poverty Line (BPL) households, but has been expanded to cover other defined categories of unorganised workers.
- The premium cost for enrolled beneficiaries under the scheme is shared by Government of India and the State Governments.
- Beneficiaries under RSBY are entitled to hospitalization coverage of up to Rs. 30,000 for most of the diseases that require hospitalization.
- Government has even fixed the package rates for the hospitals. Since 1st April, 2015, it has been transferred to Ministry of Health & Family Welfare on "as is where is" basis.

Objective of RSBY

- To provide financial protection against catastrophic health costs.
- To improve access to quality health care for below poverty line households and other vulnerable groups in the unorganized sector.





Analysis

To analyze the impact of RSBY, we shall look into two recently conducted studies on working of the scheme at field level.

Study: "Evaluation of Implementation Process of Rashtriya Swasthya Bima Yojana in Select Districts of Bihar, Uttarakhand and Karnataka (2012)"

The findings from this study illustrated that the process of implementation is smooth at a broad level with certain processes requiring further strengthening. High levels of awareness on eligibility for the scheme were reported by more than 95 percent of the enrolees across the 3 States.

The advantages for the RSBY enrolees have been twofold:

- Lower package rates at empanelled hospitals, and
- No out of pocket expenditure as in almost 90 percent of the cases Rs.30000 was noted to be sufficient for meeting the hospitalization costs.

Hospitals were observed to be following most of the processes as defined in RSBY. But one aspect which needs to be strengthened is the provision of information on treatment costs in advance with the patients requiring admission at health facilities.

The success of a programme is measured by the levels of satisfaction among the beneficiaries. An overwhelming majority (90 percent) of the respondents mentioned being highly satisfied with the RSBY scheme and all enrolees (hospitalized and not hospitalized) expressed their willingness to renew the following year. The top reasons for satisfaction include cashless nature of the scheme.

This study brought out areas requiring improvement which can be categorized as policy level and operational recommendations.

Some of the policy level recommendations include involvement of more public health facilities, ensuring a seamless complaints and grievance system, undertaking more evaluations to continuously learn and improve.

Operational issues such as data matching, intensification of communication activities and capacity building need to be focused upon.

Study on "Effects of Rashtriya Swasthya Bima Yojana on Access to Care and Financial (2017)"

The Central government's health insurance scheme, Rashtriya Swasthya Bima Yojana (RSBY), is a 'complete failure', according to a study by researchers at the Tata Institute of Social Sciences (TISS), Deonar.

The study showed till 2014, only 11% of the BPL families were registered under the scheme. For example, the enrolment percentage was 3.65% and 6.27% for Uttar Pradesh and Bihar, two most populous states that account for more than one-third of poor households in India. Another worrisome finding was that the scheme has had no significant impact on the cost of outpatient services which significantly burden patients financially compared to inpatient services. One of the reasons behind no significant reduction in out-of-pocket health expenses for insured families was that patients were often asked to buy medicines and diagnostics. The findings had serious implications at the policy level as the government planned to expand the scheme in the coming months to achieve universal health coverage.

The global experience on insurance unequivocally suggests that a private health insurance (publicly or privately funded) system is not aligned with the interests of patients. It does not solve the problems of access and inequity in health care, though it serves commercial interests of insurance companies and private corporate hospitals.



The government has announced for implementation of new Health Protection Scheme in Budget, 2016 without taking steps for improving the present ones.

Health Protection Scheme

New health protection scheme which will provide health cover up-to rupees one lakh per family. For Senior citizens of the age 60 years and above belonging to this category, an additional top-up package up to Rs.30,000 will be provided.

However, the HPS needs careful design, as otherwise, well-recognised market failures in medical insurance schemes would effectively ensure that each entitled household runs up the full limit of Rs.1 lakh per year on benefits, with scant improvement in well-being.

NITI Aayog has proposed few measures for improving the scheme such as:

- All MBBS doctors in the rural areas, trained as family physicians, would be contracted by the government and paid in accordance with the number of patients who avail their primary health-care services.
- At secondary health-care levels, public and private facilities would be "incentivised" to provide "efficient" treatment, that is, being more efficient = having more compensation.
- At the tertiary stage, All India Institute of Medical Sciences (AIIMS) like public hospitals and "low cost" private hospitals would be contracted.

There is a possibility that the proposals reportedly discussed at NITI Aayog could lead to a new inspector raj system, and may not be cost-effective.

At each stage, each player would seek to maximise its compensation by providing unnecessary treatment, thereby inflating costs. Curtailing this would require intensive and honest monitoring, which is very difficult. The more likely result is collusion between providers and inspectors to mutual benefit at the cost of the public exchequer.

Steps need to be taken (Case study of UK)

System requires guards against "moral hazard", the health-care provider's revenue should be determined only with reference to the standard treatment protocol and the statistical incidence, and not by actual manifestation in each family of covered health conditions.

Excess tests/treatment should not be paid. The incentive should be there of providing preventive health measures, this will ensure that the burden of morbidity falls over time, leading to reduced aggregate costs of treatment.

Conclusion

The two studies detailed above present a completely different picture of working of RSBY. Moreover, the recently released National health policy envisages assured health services to all and Health as entitlement. This vision cannot be successful until there is cost effective, efficient and user friendly health insurance scheme which provides reasonable cover.



INTERNATIONAL ISSUE

Issues Faced by Hill Country Tamils



Sri Lanka had been plagued with ethnic strife for a long time. In this context "Hill Country Tamils" identity and development issues are one such thing, remained on the back burner. Indian Prime Minsiter Modi, after participating in the UN Vesak Day celebrations in Colombo, also travelled to Dickoya in the island's central hills, the tea country, where Tamil people of Indian origin are concentrated. He assured them that India will support Sri Lanka's efforts towards their socio-economic development.

Hereby analyzing the issues faced by Hill Country Tamils in Sri Lanka.

Who are Hill Country Tamils?

- They are Tamil people of Indian origin in Sri Lanka.
- They are the descendants of the indentured workers brought by the British to Ceylon from the erstwhile Madras Presidency (present day state of Tamil Nadu) between 1820s and 1930s to work on the central hill plantations of tea, coffee and rubber, frequently under inhuman conditions.
- However, Sri Lankan Tamils, also referred to as Eelam Tamils, are said to be the descendants of Tamils of the old Jaffna Kingdom and east coast chieftaincies called Vannamials.

Demography of Sri Lanka

- Sri Lanka is the 57th most populated nation in the world, with 20,277,597 people, and an annual population growth rate of 0.73%.
- Sinhalese constitute the largest ethnic group in the country, with 74.8% of the total population.
- Sri Lankan Tamils are the second major ethnic group on the island, with a percentage of 11.2.
- Sri Lankan Moors comprise 9.2%.
- Tamils of Indian origin were brought into the country as indentured labourers by British colonists to work on estate plantations. Nearly 50% of them were repatriated following independence in 1948. They are distinguished from the native Tamil population that has resided in Sri Lanka since ancient times.
- There are also small ethnic groups such as the Burghers (of mixed European descent) and Malays from Southeast Asia. Moreover, there is a small population of Vedda people who are believed to be the original indigenous group to inhabit the island.

Eelam Tamils vs Hill Country Tamils

Unlike the Eelam Tamils, their upcountry counterparts had not been direct participants in Sri Lanka's ethnic conflict and generally did not subscribe to the



separatist vision of an independent state for the Tamils. Instead, the community preferred to imagine a future in a multi-ethnic Sri Lanka.

Issues of the Hill Country Tamils

- Issue of identity: Hill-country Tamils in Sri Lanka do not want to be called "Indian Tamils" anymore. This nomenclature of theirs has been a source of political and administrative discrimination and social antipathy.
- Lack of strong institutional mechanism: due to lack of strong institutional mechanism Hill Country Tamils are languishing in abject poverty.
- No political representation: Under the charge of Sinhalese controlled national government, the Indian-origin Tamils were classified as "non-Sri Lankans" in 1948 and stripped of Sri Lankan citizenship, followed by retraction of voting rights in the country where most of the families had spent a number of generations. Once the voting rights were taken away, the already destitute community lost political representation.
- **Backwardness:** Although now a segment of upcountry Tamils have urban jobs, a majority of them still live around and work in underpaid plantations jobs. Many continue to be poorly educated.

Reasons for such Miserable State

- Article 15 of the UN Declaration of Human Rights states, (1) Every person has a right to belong to a nationality, and (2) No person shall be deprived of his nationality or denied the right to change his nationality. But the root cause for this deplorable state of affairs among the hill country Tamils is the consequence of having been deprived of citizenship rights.
- The following five laws were enacted on the subject of citizenship: Citizenship Act, No. 40 of 1948, Indo-Pakistan Act No. 3 of 1949, Indo Ceylon Act, No. 14 of 1967, Grant of citizenship to stateless persons Act No. 5 of 1986 and Grant of citizenship to stateless person (Special Provisions) Act 39 of 1988. In accordance with this acts, those who were granted citizenship as Registered Citizens had to carry with them the certificate signifying citizenship by registration whenever they had to transact business anywhere.
- Tamils of the hill country, being backward in education, do not have the capacity to understand the laws under which they are registered. Furthermore, since the administrative authorities belong to the majority community, Tamils from the upcountry are unable to assert rights whenever they go to transact official business.
- Further according to the laws of Sri Lanka, any citizen above the age of 18 may be registered as a voter. But among upcountry Tamils there are many persons above the age of 18 who are not registered. This is because their parents were granted citizenship by the Indian government as they came within that quota. They were not Indian citizens because their parents had chosen to remain in Sri Lanka despite being granted Indian citizenship. But just because they were born in Sri Lanka to Indian citizens they were not granted Ceylon citizenship either. Therefore, even though the parents have citizenship rights and voting rights, these rights were denied to children.

Government Steps for the development of Hill Country Tamils

Hill Country New Villages Development Authority: Borrowing from the concept of the Southern Development Authority, which had a visible presence during the previous regime led by President Mahinda Rajapaksa, the present government has decided to establish a similar body for the welfare of over one-million plantation community, which essentially comprises hill-country Tamils. The



- proposed organisation will have a "strong institutional mechanism." It will carry out the functions of planning and coordination. The Cabinet gave its nod for getting a bill drafted in this regard.
- However, Plantation Human Development Trust (PHDT), a body comprising representatives of the Sri Lanka government, regional plantation companies (RPC) and trade unions, is in place. Set up in 1992, the PHDT's mandate is to implement social development programmes for the community. It suffers from several handicaps such as limited scope and coverage, reliance on contributions of the RPCs and the absence of the role of coordination with other Ministries, departments and agencies. Its social security net is not applicable to workers' family members, who do not form part of the workforce in the estates. Also, the Trust's functions do not cover small private estates and those coming under the control of Janatha Estate Development Board and State Plantation Companies.
- ➤ Government adopted a five-year action plan of \$690 million for the economic, social and educational development of the community. As part of the action plan, the idea is to build 56,500 houses at an approximate investment of \$575 million.

Conclusion

- ▶ Hill Country Tamils are denied of their legitimate rights for a long time. The present government is heeding attention to them with new prism of inclusiveness; it is encouraging to the international community.
- ▶ It is the failure of the Indian government and its foreign policy that could not ensured the minimum rights to Hill Country Tamils.
- ➤ PM Modi's recent visit to the community may expedite the process of the development. Indian government can come up with some financial helps for their development.
- ► Ensuring the political and socio-economic rights would be the tough task for the government.
- ► It requires tough decisions and bring about harmony among various ethnic groups.





SCIENCE ISSUE

FAQ on Ransonware



Over the weekend, hospitals in the U.K. were forced to turn away some patients as a result of a computer virus that had infected their operating systems. In France, automaker Renault shut down production at several plants because of the same virus. In Russia, that same virus knocked thousands of computers offline at the Interior Ministry. This all is due to the Ransonware, a malware that has affected the whole world. Hereby, analyzing the concept of Ransonware, its impact and steps needed.

What is Malware?

Malware, or malicious software, is any program or file that is harmful to a computer user. Malware includes computer viruses, worms, Trojans and spyware. These malicious programs can perform a variety of functions, including stealing, encrypting or deleting sensitive data, altering or hijacking core computing functions and monitoring users' computer activity without their permission.

Forms of Malware

- **Virus:** Viruses attach themselves to clean files and infect other clean files. They can spread uncontrollably, damaging a system's core functionality and deleting or corrupting files.
- **Trojans:** This kind of malware disguises itself as legitimate software, or is included in legitimate software that has been tampered with. It tends to act discretely and create backdoors in your security to let other malware in.
- **Spyware:** It hides in the background and takes notes on what you do online, including your passwords, credit card numbers, surfing habits and more.
- Worms: Worms infect entire networks of devices, either local or across the internet, by using network interfaces. It uses each consecutive infected machine to infect more.
- Ransomware: Also called scareware, this kind of malware can lock down computer and threaten to erase everything — unless a ransom is paid to its owner.
- **Adware:** Though not always malicious in nature, particularly aggressive advertising software can undermine security just to serve ads — which can give a lot of other malware a way in.
- **Botnets:** Botnets are networks of infected computers that are made to work together under the control of an attacker.

What is Wannacry Malware?

Wannacry is a malware which is spreading across the globe since May 12, 2017 and has hit government & private companies and universities in nearly 100 countries.



WannaCry (also known as WCry or WanaCryptor) malware is a self-propagating (worm-like) ransomware that spreads through internal networks and over the public internet by exploiting a vulnerability in Microsoft's Server Message Block (SMB) protocol, MS17-010.

What is Ransomware?

- Ransomware is a type of malicious software that infects a computer and restricts users' access to it until a ransom is paid to unlock it. Ransomware variants have been observed for several years and often attempt to extort money from victims by displaying an on-screen alert. Typically, these alerts state that the user's systems have been locked or that the user's files have been encrypted. Users are told that unless a ransom is paid, access will not be restored. The ransom demanded from individuals varies greatly but is frequently \$200-\$400 dollars and must be paid in virtual currency, such as Bitcoin.
- Encryption is the encoding of a file so it cannot be read without a key to decrypt. When used as part of ransomware it can prevent you from accessing your files. At this time there is no way to decrypt the files without the key.

What types of computers are at risk?

Currently ransomware is targeted at Windows operating systems. However ransomware can also be designed to run on Macs, Linux, and mobile devices such as Androids and iPhones.

How does it spread?

Ransomware often spread through phishing emails that contain malicious attachments or through drive-by downloading. Drive-by downloading occurs when a user unknowingly visits an infected website and then malware is downloaded and installed without the user's knowledge.

Crypto ransomware, a malware variant that encrypts files, spread through similar methods and has also been spread through social media, such as Web-based instant messaging applications. Additionally, newer methods of ransomware infection have been observed. For example, vulnerable Web servers have been exploited as an entry point to gain access into an organization's network.

Impact

The ransomware attack infected over 75,000 users in over 99 countries, using 20 different languages to demand money from users using Bitcoin cryptocurrency. WannaCrypt demanded \$300 per computer. The attack affected Telefónica and several other large companies in Spain, as well as parts of the British National Health Service (NHS), where at least 16 hospitals had to turn away patients or cancel scheduled operations, FedEx, Deutsche Bahn, as well as the Russian Interior Ministry and Russian telecom MegaFon. The attackers gave their victims a 7-day deadline from the day their computers got infected, after which the encrypted files would be deleted.

The ransomware was developed by as-yet unknown hackers using tools first developed by the NSA and affects some computers running Microsoft software. The criminals have so far netted a paltry \$50,000 in ransom payments, based on payments into Bitcoin accounts associated with the malware. The virus has so far infected nearly 200,000 computers worldwide.

Why bitcoins used for transactions?

Bitcoin is a kind of digital currency. It can be purchased with dollars or euros and get store on online "wallet." Unlike with a credit card, the transactions made with the currency are completely anonymous. They can't be used to identify the person personally because during the transaction, "private key" is





associated with wallet to generate a bit of code — called an address — that is then publicly associated with transaction but with no personal identifying information. In that way, every transaction is recorded and securely signed in an open ledger that anyone can read and double-check without disclosing the identity.

How to handle the menace?

Firewalls, security protocols, better antivirus and anti-malware programmes are used for cybersecurity, however, no matter how sophisticated its defences, is only as secure as its least security-conscious user. In other words, there is no point in having a weapons-grade password protocol if some user is simply going to write it on a post and stick it behind her keyboard, or share it on the phone with some random stranger claiming to be calling from tech support. There is a need for digital literacy.

According to a Deloitte-Assocham study, 'Digital India – unlocking the trillion dollar opportunity', India has one of the world's largest populations of digital illiterates. Only 10% of the population is digitally literate, having the skills needed to take advantage of digital access. Government has taken steps under Digital India Mission to increase digital literacy but the reality is, the government, and all the giant corporates involved in this, are confusing digital skills with digital literacy.

As Professor Maha Bali of American University, Cairo, pointed out: "Teaching digital skills would include showing students how to download images from the Internet and insert them into PowerPoint slides or web pages. Digital literacy would focus on helping students choose appropriate images, recognise copyright licensing, and cite or get permissions, in addition to reminding students to use alternative text for images to support those with visual disabilities."

He may be able to differentiate between the fake and the real email. For implementing this basic literacy needs to be redefined to include digital literacy, which means it has to start right from the beginning, from the primary school.



INTERNATIONAL ISSUE

Iran India Gas Block



The overseas arm of India's biggest oil and gas explorer Oil and Natural Gas Corp. (ONGC) intends to spend more than \$3 billion on Iran's Farzad-B natural gas block.

ONGC Videsh Ltd has submitted a revised plan to the Iranian government for the block, which the company will be able to develop within five years. The Indian oil company is now waiting for feedback from Tehran. Output from Farzad-B could range from 1 billion to 1.6 billion cubic feet of natural gas per day.

Iran is seeking foreign investment to revive its oil, gas and petrochemical industries since international sanctions on its economy were removed last year.

Background

As was anticipated, the nuclear sanctions imposed against Iran were finally lifted on January 16, 2016 after it was certified by the International Atomic Energy Agency (IAEA) that Iran had met its obligations under the Joint Comprehensive Plan of Action (JCPOA) reached in July 2015 among six world powers. The deal has not only allowed Iran access to the billions of dollars of assets in international bank accounts that were frozen during the sanctions period, but will also possibly see thousands of barrels of Iranian crude added to its current exports of 2.9 million barrels per day (mb/d), with the possibility of 1 million barrels extra per day (mb/d) by the end of 2016. Due to this India has proposed rebuilding of energy ties with Iran as ONGC Videsh Ltd has submitted a revised plan to the Iranian government for the block, which the company will be able to develop within five years.

About the Farzad B gas field

The Farzad B gas field is an Iranian natural gas field that was discovered in 2012. It began production in 2013 and produces natural gas and condensates. The total in place reserves of the Farzad B gas field are around 21.7 trillion cubic feet (620×109m³) of which around 60 percent is recoverable and production is slated to be around 1.1 billion cubic feet/day $(31\times10^6\text{m}^3)$. Indian government is trying to negotiate a deal to get rights to dig oil.

India's Interest

- Stable and reliable source of gas and oil. It can meet India's growing demand for energy and bring about energy security for us.
- Currently, India procures oil from Iran at a lower rate compare to prevalent world market rate.

Iran's Interest

Iran is seeking foreign investment to revive its oil, gas and petrochemical industries since international sanctions on its economy were removed last year.



- India is the second-largest buyer of Iranian crude, hence a source of revenue for
- India was among the few countries to continue trade with Iran while the country faced Western sanctions over its nuclear programme.
- The company also plans to invest \$45 million to produce from gas wells owned by Imperial Energy, which ONGC Videsh acquired in 2008.
- ONGC Videsh is working on scaling up productions, which means more revenue for Iran.

India's stake in Farzad-B natural gas block

- ONGC Videsh had discovered the Farzad B gas field in 2008 and had submitted plans to develop it in 2010 but due to geopolitical reasons, ONGC Videsh had to surrender the block and it was later put up for a fresh bid by Iran. After the sanctions on the country were lifted, the block evoked interest in many investors, making India's position uncertain.
- As a part of its strategy to secure energy overseas, India has been trying to close the deal for the Farzad B block using diplomatic ties but has not succeeded so far.
- ONGC Videsh in now confident that the revised plan would work in its favour. ONGC Videsh is working on scaling up productions and pegs FY18 output at 14 million tonnes oil as against 12 million tonnes in FY17.
- The two nations were initially targeting concluding a deal on Farzad-B field development by November 2016 but later mutually agreed to push the timeline to February 2017.
- Since the lifting of western sanctions, Iran is playing hardball over award of the field which was discovered by OVL.

Hurdles in exploiting interests

- Since the lifting of some of the sanctions last year, Iran has sought other investors and there is some uncertainty whether the Farzad block contract will be awarded to an Indian company.
- In fresh conditions, Iran wants India to pay more than triple the gas price for award of the coveted Farzad-B natural gas block to ONGC Videsh (OVL).
- Iran wants India to buy all of the natural gas to be produced from the Persian Gulf block at a price equivalent to the rate Qatar charges for selling liquefied natural gas (LNG) to India under a long-term deal. Qatar charges higher rate.
- Middle East is fraught with terrorism, civil war and regional jealousy, which is detrimental for commerce purposes.
- There is also issue of oil dues that India had to pay Iran.
- The Iranian market is becoming very competitive and Indian companies have to compete. During the sanctions, there was an exceptionally generous offer from Iran to India. But, Indian could not encashed the opportunity.
- Further in 2017, uncertain trajectories in U.S. foreign policy following the election of Donald Trump to the presidency and rising tensions in U.S.-Iran ties, signal instead that India might need to slow down on several proposed projects. Projects like Farzad B offshore gas field proposed by ONGC Videsh Limited (OVL) and an aluminium smelter project planned by National Aluminium Company Limited (NALCO) could feel the pressure of the latest sanctions. This could dampen



New Delhi and Tehran's hopes of strengthening regional economic integration after the fanfare with which the Chabahar project was lauded as a big prize for India's outreach to Afghanistan and Central Asia.

Way out

- Iran's and India's interest are complementary: Iran seeks stable source of revenue and India needs oil and gas at cheaper rate, hence a middle path can be forged.
- As far Farzad-B field is concerned, India's claim comes first as it was discovered by OVL. During the difficult time of sanction, India standby Iran and kept purchasing oil.
- India used to be a very important customer of Iranian oil and Iran, a trusted supplier to India. It is high time carry forward the time tested commercial relation.

Conclusion

- Indians today prefer to diversify their suppliers. It could be because of geographical or geopolitical issues. But, utility of low cost oil supply from Iran cannot be overlooked.
- On realistic ground, Iran-Pakistan-India pipeline (also called Peace Pipeline) is more practical than Turkmenistan-Afghanistan-Pakistan.
- India must devise foreign policy with respect to West Asia keeping in mind the energy security and must not be swayed away in the pressure of Western countries.
- Western countries interests in general and US in particular is subsiding in West Asia as new alternatives are being developed. Hence, India needs to assert its 'Act West Asia' policy for ensuring energy security to the country.





SOCIAL ISSUE

Issue of Female Genital **Mutilation**



Female genital mutilation (FGM) is in news because of the following developments:

- The Supreme Court has issued notices to four ministries on a petition seeking a ban on female circumcision.
- Maneka Gandhi (Minister of women & child development) stated government's intention to bring a law to ban the practice of khatna (female genital mutilation) among the the Dawoodi Bohras if the community did not stop it voluntarily.
- Speak out on FGM (a group of Dawoodi Bohra women) and Lawyers collective (a human rights NGO) have released a report on the practice of female genital mutilation (FGM) which looks at the legal aspects that could be brought to stop the practice.

What is FGM?

- Female genital mutilation (FGM) comprises all procedures that involve partial or total removal of the external female genitalia, or other injury to the female genital organs for non-medical reasons.
- According to WHO, as of February 2017, more than 200 million girls and women alive today have been gone through FGM in 30 countries in Africa, the Middle East and Asia where FGM is concentrated. More than 3 million girls are estimated to be at risk for FGM annually.
- The practice is most common in the western, eastern, and north-eastern regions of Africa, in some countries the Middle East and Asia, as well as among migrants from these areas. FGM is therefore a global concern.

What are the various types of FGM?

Female genital mutilation is classified into 4 major types.

Type 1: Clitoridectomy	Clitoridectomy is the partial or total removal of the clitoris (a small, sensitive and erectile part of the female genitals), and in very rare cases, only the prepuce (the fold of skin surrounding the clitoris).		
Type 2: Excision	Excision is the partial or total removal of the clitoris and the labia minora (the inner folds of the vulva), with or without excision of the labia majora (the outer folds of skin of the vulva).		
Type 3: Infibulation	Infibulation is the narrowing of the vaginal opening through the creation of a covering seal. The seal is formed by cutting and repositioning the labia minora, or labia majora, sometimes through stitching, with or without removal of the clitoris (clitoridectomy).		



	Deinfibulation refers to the practice of cutting open the sealed vaginal opening in a woman who has been infibulated, which is often necessary for improving health and well-being as well as to allow intercourse or to facilitate childbirth.	
Type 4:All other forms	Type 4 includes all other harmful procedures to the female genitalia for non-medical purposes, e.g. pricking, piercing, incising, scraping and cauterizing the genital area.	

Who performs it?

- The practice is mostly carried out by traditional circumcisers, who often play other central roles in communities, such as attending childbirths.
- In many settings, health care providers perform FGM due to the erroneous belief that the procedure is safer when medicalized. WHO strongly urges health professionals not to perform such procedures.

What are the Cultural and Social factors for performing FGM?

Ensuring premarital virginity and preventing extramarital sexual acts:

- FGM is often motivated by beliefs about what is considered acceptable sexual behaviour. It aims to ensure premarital virginity and marital fidelity.
- FGM is in many communities believed to reduce a woman's libido and therefore believed to help her resist extramarital sexual acts.
- When a vaginal opening is covered or narrowed (type 3), the fear of the pain of opening it, and the fear that this will be found out, is expected to further discourage extramarital sexual intercourse among women with this type of FGM.

Cleanliness:

FGM is associated with cultural ideals of femininity and modesty, which include the notion that girls are clean and beautiful after removal of body parts that are considered unclean, unfeminine or masculine.

Religious support:

Though no religious scripts prescribe the practice, practitioners often believe the practice has religious support.

Continuing the cultural tradition:

In most societies, where FGM is practiced, it is considered a cultural tradition, which is often used as an argument for its continuation.

Why is it criticized?

Discrimination against women: It reflects deep-rooted inequality between the sexes, and constitutes an extreme form of discrimination against women.

Violation of women rights:

- FGM is a violation of the human rights of girls and women.
- The practice also violates a person's rights to health, security and physical integrity, the right to be free from torture and cruel, inhuman or degrading treatment, and the right to life when the procedure results in death.

Violation of child rights:

FGM is mostly carried out on young girls between infancy and age of 15.





It is nearly always carried out on minors and is a violation of the rights of children.

Health effects:

- FGM has no health benefits, and it harms girls and women in many ways.
- It involves interfering with the natural functions of girls' and women's bodies.
- Procedures can cause severe bleeding and problems in urinating, and later cysts, infections, as well as complications in childbirth and increased risk of newborn deaths.

International Response

- In 1997, WHO issued a joint statement against the practice of FGM together with the United Nations Children's Fund (UNICEF) and the United Nations Population Fund (UNFPA).
- Since then many efforts have been made to counteract FGM, through research, work within communities, and changes in public policy.

What is the present status of FGM in India?

- In India, the Bohras not just Dawoodi Bohras but other sects too practice FGM.
- There are no authentic Indian statistics about the number of Indian victims, but activists say 80%-90% of Bohra girls are subject to the process, sometimes at the hands of ill-equipped traditional circumcisers attending childbirth.
- Only Types 1 and 4 are practiced in India, and is called Khatna.

The **Dawoodi Bohras** are a sect within the Ismaili branch of Shia Islam.

What is Khatna?

- "Khatna" or "khafd" is a pre-pubescent coming of age ceremony carried out in Muslims community in India. Dawoodi Bohras use the word "khatna" or circumcision to refer to the removal of the prepuce from the genitalia of both boys and girls.
- Female khatna can be classified under the World Health Organization's (WHO) definition of Type I Female Genital Mutilation or Female Genital Cutting.
- Khatna is performed by a traditional cutter also known as a 'mulaani' with rudimentary equipment like a disposable blade under non-sterile conditions and in a household setting.

What is the view of Quran on FGM?

- The Quran does not talk about male or female circumcision, but male circumcision is considered mandatory in Islam – it is seen as one of the five "sunnah-al-fitrah" (obligatory customs of nature) that Prophet Mohammed preached: circumcision, cutting the nails, trimming the moustache, plucking pubic and armpit hair.
- FGM, on the other hand, is not considered obligatory.

Report of NGO on female genital mutilation

Speak out on FGM (a group of Dawoodi Bohra women) and Lawyers collective (a human rights NGO) have released a report on the practice of female genital mutilation (FGM) which looks at the legal aspects that could be brought to stop the practice. The report contains a draft law which aims at banning the practice. The draft has the following salient features:

Define FGM: While existing laws like the Indian penal code and the POSCO can deal with FGM, there is a need to define FGM.



Not a religious practice:

- FGM cannot be justified as a 'religious practice'.
- Specific amendments are needed to categorize FGM as a form of professional misconduct.

Relief:

Provisions for relief, rehabilitation and protection are needed. A victim should not only be compensated but also be rehabilitated. For this a separate law is best suited.

Punishment:

The parent, who is performing the act. The cutters and propagators (amils) should be penalized in that order.

Reporting of cases:

- Doctors, teachers, social workers and Amils should be at the fore in reporting cases to the police.
- Cases should be reported to the govt. and accredited NGO.
- A designated person should be able to obtain a restraining order in case of proposed FGM.

WHO response

WHO efforts to eliminate female genital mutilation focus on:

- Strengthening the health sector response by guidelines, tools, training and policy to ensure that health professionals can provide medical care and counselling to girls and women living with FGM.
- Building evidence by generating knowledge about the causes and consequences of the practice, including why health care professionals carry out procedures, how to eliminate it, and how to care for those who have experienced FGM.
- Increasing advocacy by developing publications and advocacy tools for international, regional and local efforts to end FGM within a generation.





INTERNATIONAL ISSUE

Asia-Africa Growth Corridor (AAGC)

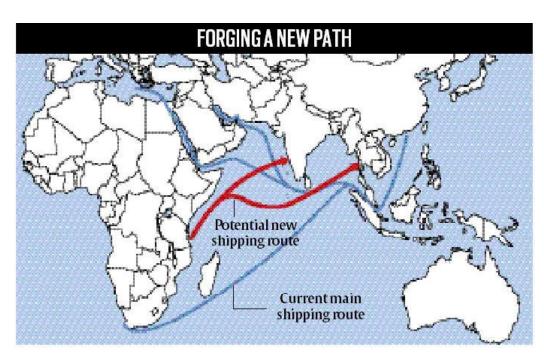


In May 2017, at the 52nd annual meeting of African Development Bank held in Gandhinagar, India and Japan unveiled a vision document for the development of Asia Africa Growth Corridor.

Origin of AAGC:

This Asia Africa Growth Corridor was first proposed by India and Japan in November 2016.

Map of the Plan:



Objective: It has two broad objectives:

1. De	eveloping sea corridors	>	To create a "free and open Indo-Pacific region" by rediscovering ancient sea-routes and creating new sea corridors that will link the African continent with India and countries in South-Asia and South-East Asia.
		>	For instance, under the AAGC, there is a plan to connect ports in Jamnagar (Gujarat) with Djibouti in the Gulf of Eden and Mombasa with Zanzibar will be connected to ports near Madurai.
		>	India is developing ports under the Sagarmala programme specifically for this purpose.



2.	Build infrastructure	>	Apart from developing sea corridors, robust institutional, industrial and transport infrastructure will be developed in growth poles
			among countries in Asia and Africa.
		>	This will integrate the two regions and will enable emergence of Asia and Africa as a globally competitive economic bloc.

- Four key pillars: The vision document proposes four key pillars that leverage the strengths of India and Japan:
 - Enhancing capacity and skills;
 - Building quality infrastructure and connecting institutions;
 - Development and cooperation projects in health, farming, manufacturing and disaster management; and
 - People-to-people partnerships.
- Five focal points: The AAGC consists of five remarkable focal points:
 - Effective mobilisation of financial resources:
 - Their alignment with socio-economic development and development strategies of partner countries and regions;
 - Application of high-quality standards in terms of compliance with international standards established to mitigate environmental and social impact;
 - Provision of quality of infrastructure taking into account aspects of economic efficiency and durability, inclusiveness, safety and disaster-resilience, sustainability as well as convenience and amenities; and
 - Contribution to the local society and economy.
- What are the proposed plans under this project?
 - More details are likely to be firmed up by September, 2017 when Japan's PM Shinzo Abe will visit India.
- How will India and Japan contribute to the project?
 - Japan will build quality infrastructure, while India will bring in its expertise of working in Africa.

How will it be a win-win situation for India, Japan and Africa?

- Synergy between Act East Policy and Expanded Partnership for Quality **Infrastructure:** As the Indo-Pacific region will be "the key driver for prosperity of the world", the two leaders have decided "to seek synergy" between India's "Act East Policy" and Japan's "Expanded Partnership for Quality Infrastructure". Thus launching of AAGC is a right step in this direction.
- This will turn the 21st century into an Asian-African century, and not just an Asian century.
- **Participate in Africa's growth story:** It is a key step in participating in growth story of some African nations.
- Increasing footprint in Africa: Another objective is to curtail the Chinese presence on the continent by increasing their investment in Africa. In 2015-16, China invested a whopping USD 38.4 billion (24 per cent of total green-field investment). In comparison, India invested just USD 2.2 billion (1.3 percent of total green-field investments). Japan investments at present are minuscule.





- To counter China's OBOR: The vision document was unveiled days after China's > ambitious One Belt, One Road (OBOR) initiative took off. Thus experts are seeing it as a step to counter China's OBOR initiative. India has great trade and network experience in Africa, and Japan has very advanced technology. This combination will give China tough competition for market share.
- Benefits for Africa: It will also contribute towards achieving the "High priorities" which according to African Development Bank are crucial for accelerating Africa's economic transformation. These high 5 priorities are (i) Light up and power Africa, (ii) Feed Africa (food security), (iii) Industrialize Africa, (iv) Integrate Africa (transportation), and (v) Improve the quality of life for the people of Africa (skill development, health and sustainable development).

How is it Different from China's One Belt One Road (OBOR) Project?

- Land vs Water: OBOR mainly entails development of a land corridor, whereas AAGC entails development of a sea corridor.
- Coverage: Europe is not a part of AAGC, but in OBOR, Europe is a major focus area.
- Cheaper and less carbon footprint: The project stakeholders believe that the sea corridors will be "low-cost" and have "less carbon footprint" when compared to a land corridor.
- More open: As compared to OBOR, AAGC is more open. It will be based on more consultations as opposed to government funded OBOR (OBOR was presented with least consultations).
- More inclusive: As compared to OBOR, AAGC is more inclusive. It will keep people as the centre piece rather than just trade and economic ties.

Way Ahead?

- India and Japan should realise that they do not have the luxury of time in view of China's rapidly expanding footprint in Africa.
- An urgent need exists for them to increase the scope of their development projects, create synergy among themselves, engage proactively with other willing partners, and thus turn the concept of the AAGC into a viable reality.
- In this direction, India and Japan should initiate a few joint pilot projects along with Kenya, Ethiopia and Mozambique in identified areas such as health care, agriculture and blue economy.



INTERNATIONAL ISSUE

Implication of Recent Iran Election



Presidential elections were held in Iran on 19 May 2017, the twelfth such election in Iran. Local elections were held simultaneously. Hassan Rouhani was re-elected for a second term. Turnout reached roughly 70 percent, with about 40 million Iranians casting ballots nationwide. At stake was whether Iran would continue to open up to the world or return to the diplomatic and economic isolation of the past.

In this article we shall try to understand implication of Iranian Election globally in general, and impact on India in particular.

Global Implications

Iranian President Hassan Rouhani was re-elected to a second term by a landslide presenting him a resounding endorsement of his plans to end Iran's pariah status and rejoin the global economy.

With 57 percent of the vote, Rouhani defeated his hard-line rival, Ebrahim Raisi, who had the backing of the ruling clergy and allied security forces. He also won a clear mandate to push through domestic reforms and pursue talks with the West, building on the nuclear deal he negotiated with world powers. That agreement, which Rouhani and his cabinet clinched during his first term, constrains Iran's nuclear program in exchange for international sanctions relief. The landslide victory gives Rouhani a mandate he did not had during his first term.

Iran's president commands the state's vast bureaucracy and also has the ability to shape foreign and domestic policy. But all matters of the state must eventually be approved by Supreme Leader Ayatollah Ali Khamenei and the Guardian Council, a body of theocrats.

On the international front, Iran will have to confront the more bellicose administration of President Trump. His administration has placed the nuclear deal under interagency review and recently imposed new sanctions on Iran for its ballistic missile program.

Still, Rouhani has pledged to continue to negotiate with the United States to persuade them to lift non-nuclear sanctions. Results show that citizens of Iran stand behind Rouhani's attempts to break the country's isolation. A vast chunk of his votes came from the urban middle classes, especially the educated youth. Rouhani was instrumental in opening up Iran to the world after years of sanctions imposed isolation with the signing of the nuclear agreement with the USA and other major powers in 2015. In return for the lifting of economic sanctions, Iran agreed to curb its nuclear programme on the basis of certain terms. The removal of these sanctions was foreseen as an automatic precursor to the rapid economic growth and revival of the Islamic nation.



Implication on India

Re-election of Rouhuni will provide continuity to Indo-Iran relations. India-Iran commercial ties have traditionally been dominated by Indian import of Iranian crude oil. India is the second largest buyer of Iranian crude after China and Iran was the third largest supplier of crude to India (Apri-Sep 2016). The India-Iran bilateral trade during the fiscal year 2015-16 was USD 9.054 billion. India imported USD 6.2 billion worth of goods mainly crude oil and exported commodities worth USD 2.7 billion. With Ruhani ambition of opening Iranian economy, the trade between two countries shall increase.

The Chabahar port has also been jointly financed by Iran and India. India is helping develop the Chabahar Port, which will give it access to the oil and gas resources in Iran and the Central Asian states. By doing so, India hopes to compete with the Chinese, who are building Gwadar Port, in Pakistan's Baluchistan. Iran plans to use Chabahar for transshipment to Afghanistan and Central Asia, while keeping the port of Bandar Abbas as a major hub mainly for trade with Russia and Europe. India, Iran and Afghanistan have signed an agreement to give Indian goods, heading for Central Asia and Afghanistan, preferential treatment and tariff reductions at Chabahar. Rouhani re-election shall make sure that projects are on track and complete on time. Further, the North-South Transport Corridor is the ship, rail, and road route for moving freight between India, Russia, Iran, Europe and Central Asia. The route primarily involves moving freight from India, Iran, Azerbaijan and Russia via ship, rail and road. The project will get further impetus with political continuity.

With Iran slowly diversifying its economy away from oil exports, India can serve as a model for its development. India's private sector, banks and MNCs can provide Iran with necessary technology and aid. Iranian can learn much from India's IT and pharmaceutical firms. While Tehran and New Delhi seek co-operation in more and more sectors, they need to be wary of the existing status quo in the region.

Conclusion

The re-election of Rouhani could be seen as a sentiment of Iranians to come out of isolation and bridge with outside world to reinvigorate economy. This is a positive step as it will likely to reduce sanctions form USA, however tacking new US administration is a challenge. Amid this there are a lot of opportunities for India and Iran to develop more strong bonds by increasing trade, moving fast on existing projects and increasing bilateral investment.



INTERNAL SECURITY

Impact of Encryption Technology on Internal Security



Encryption is the new challenge faced by law enforcement agencies not just in India but around the world. Social media apps such as Whatsapp and Viber have gone ahead and provided end-to-end encryption (E2EE) communications to users. According to the Law enforcement officials this makes it impossible for them to engage in legitimate monitoring of communications by terrorists and criminals.

Hereby, analyzing the impacts of data encryption on internal security.

Background

Over time, the security agencies are facing increasing challenges on the technological front, both in terms of software and hardware. Earlier, they were struggling with the Blackberry, however, the technology used by applications like Signal, WhatsApp and the new generation phones used by ultras in Jammu & Kashmir have multiplied the challenges for security agencies and local techies.

What is end to end encryption?

Encryption is the conversion of electronic data into another form, called ciphertext, which cannot be easily understood by anyone except authorized parties. The primary purpose of encryption is to protect the confidentiality of digital data stored on computer systems or transmitted via the Internet or other computer networks. Modern encryption algorithms play a vital role in the security assurance of IT systems and communications as they can provide not only confidentiality, but also the following key elements of security:

- **Authentication:** The origin of a message can be verified.
- ➤ Integrity: Proof that the contents of a message have not been changed since it was sent.
- **Non-repudiation:** The sender of a message cannot deny sending the message.

End-to-end encryption (E2EE) is a method of secure communication that prevents third-parties from accessing data while it's transferred from one end system or device to another. In E2EE, the data is encrypted on the sender's system or device and only the recipient is able to decrypt it. Nobody in between, be they an Internet service provider, application service provider or hacker, can read it or tamper with it.



The cryptographic keys used to encrypt and decrypt the messages are stored exclusively on the endpoints, a trick made possible through the use of public key encryption.

Some examples: There are some apps like Facebook Messenger where encryption applies only to the data in transit. Other apps encrypt the data but store the decryption keys thereby creating the possibility for inspection by law enforcement agencies. Apps like Snapchat encrypt only data in transit but the messages are deleted from the server once the recipient reads it.

In Symmetric Encryption or Secret Key encryption, the same key called the secret key is used to encrypt and decrypt the data or message.

In Asymmetric Encryption or Public Key Encryption, different keys are used to encrypt and decrypt the data or message. WhatsApp uses a more complex version of Asymmetric encryption where the private key varies for each message that is sent.

Encryption and Security

Terrorist organisations have widely used platforms such as WhatsApp and Facebook to publicly incite hate and propaganda. For instance, the gunman behind last year's Orlando massacre had set up several Facebook accounts to share hateful posts, as well as to aid searches relating to Islam. ISIS has allegedly often used Facebook and Twitter to recruit and spread propaganda too, while the series of terror attacks in Paris in 2015 were also reportedly planned via the likes of WhatsApp and Telegram.

The Islamic State devotes a division of its commanders to educating both sympathizers and members alike on how to use new, encrypted communications.

Due to this governments around the world are asking for removing the content such as hate videos, public tweets, and even live-video.

Debate: Security vs Data Privacy

The controversy between FBI and Apple can easily explain the issue. The case marked one of the highest-profile clashes in the debate over encryption and data privacy between the government and a technology company.

The FBI in one of the case demanded that Apple should allow them access to the phone by building a backdoor into iOS' security they could use; Apple refused on the grounds that such an exploit could be used by hackers in the future. This makes harder for them to solve cases and stop terrorist attacks.

Thus the act of protecting user communication is noble on the one hand, however can quickly turn foul on the other if the same goodwill is exploited. Users deserve their privacy, but there might be times when governments require information for investigative purposes.

One of the major roadblocks in this situation is the absence of specific laws that can define exactly when such access can be demanded, and reasonable restrictions on what the information can be used for.

Rules related to encryption in India

Section 84A of the IT Act 2008 calls for encryption to keep the electronic medium secure, and also mentions that the Central Government would prescribe the methods of encryption. The telecom sector is limited to the encryption of 40 bits. Section 69 of IT Act 2008 gives power to both Central and State Governments to intercept data taking into account the security of the State.

In a recent move, the Ministry of Home Affairs asked companies like WhatsApp, Facebook, and Google to maintain servers in India. With companies moving to E2EE, locating servers in India would not serve the cause.



Way forward

A strong policy of regulation would hamper innovation in encryption technology, and, on the other, unregulated encryption would favour miscreants to use the technology for their activities. Thus it is needed to find the right mix between protecting user data, while allowing law enforcement agencies to retrieve it for investigation. Government should release encryption policy to define the role of all the stakeholders related to it.







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INTERNATIONAL ISSUE

China Invokes Panchsheel



China re-invoked the doctrine of Panchsheel — or the five principles of peaceful co-existence — as the template for addressing India's concerns over the China Pakistan Economic Corridor (CPEC) and the Belt and Road Initiative. Recently, India has decided to skip the Belt and Road Forum on grounds that the economic corridor infringed New Delhi's sovereignty as it passed through Pakistan-occupied Kashmir. Hereby, analysing the concept of Panchsheel and implications of its revocation on India.

What is Panchsheel?

Panchsheel was born sixty three years ago in response to a world asking for a new set of principles for the conduct of international relations that would reflect the aspirations of all nations to co-exist and prosper together in peace and harmony..

Panchsheel, or the Five Principles of Peaceful Co-existence, were first formally enunciated in the Agreement on Trade and Intercourse between the Tibet region of China and India signed on April 29, 1954, which stated, in its preamble, that the two Governments "have resolved to enter into the present agreement based on the following principles:

- ▶ Mutual respect for each other's territorial integrity and sovereignty,
- ► Mutual non-aggression,
- ➤ Mutual non-interference,
- ► Equality and mutual benefit, and
- ➤ Peaceful co-existence.

What is CPEC?

China-Pakistan Economic corridor is a collection of infrastructure projects currently under construction throughout Pakistan. Originally valued at \$46 billion, the value of CPEC projects is now worth \$62 billion. CPEC is intended to rapidly modernize Pakistani infrastructure and strengthen its economy.

The Government of India, which shares tense relations with Pakistan, objects to the CPEC project as upgrade works to the Karakoram Highway are taking place in Gilgit Baltistan territory that India claims. China and Pakistan intended to develop the corridor not just for its economic benefits, but also is motivated by the "strategic intent of besieging India.

What is Belt and Road Initiative?

The Silk Road Economic Belt and the 21st-century Maritime Silk Road, also known as the Belt and Road Initiative (B&R), is a development strategy proposed by Chinese President Xi Jinping that focuses on connectivity and cooperation between Eurasian



countries, and the People's Republic of China, the land-based "Silk Road Economic Belt" (SREB) and the oceangoing "Maritime Silk Road" (MSR). The strategy underlines China's push to take a larger role in global affairs, it involves China underwriting billions of dollars of infrastructure investment in countries along the old Silk Road linking it with Europe.

Why China invoked Panchsheel?

After India skipped recently held Belt and Road Forum, China has indicated that five principles of peaceful cooperation along the Belt and Road should be the basis for addressing India's concerns.

However, testimony of history is evidence that China has not followed these principles rather acted in opposite direction. Following acts of China in the past clearly indicate that it not serious about Panchsheel principles:

- Aksai Chin is the disputed border area between China and India. It is administered by China but is also claimed by India as a part of the Ladakh region of the state of Jammu and Kashmir. Similarly, China claims the whole of Arunachal Pradesh belongs to it. In 1962, China and India fought a brief war over Aksai Chin and Arunachal Pradesh. This contradicts the idea of Mutual respect for each other's territorial integrity and sovereignty and mutual non-aggression.
- China backed Pakistan in its 1965 war with India. Between 1967 and 1971, an all-weather road was built across territory claimed by India, linking PRC's Xinjiang Uyghur Autonomous Region with Pakistan. China sided with Pakistan in its December 1971 war with India.
- The PRC continued an active propaganda campaign against India and supplied ideological, financial, and other assistance to dissident groups, especially to tribes in north-eastern India.
- China's domination of Indian Ocean through building of military bases around India. This strategy is termed as String of Pearls.
- China has blocked attempts made by India to bring about a UN ban on Masood Azhar which would warrant Pakistan to act against him. China blocked a proposal to list Jaish-e-Mohammad chief Masood Azhar as a global terrorist at the UN. China had blocked the proposal saying that there was no consensus over it.
- India's entry into NSG has been opposed by China. It is putting forward arguments on the basis that if India is to be granted a seat in NSG, then all other South Asian countries like Pakistan which were non-signatory of NPT should be granted a seat too.

Conclusion

China's track record in honouring Panchsheel is tainted. India shall pursue its national interests and take issues like CPEC to international forums like UN and forming alliance with like-minded countries like USA to counter rising China.



SOCIAL ISSUE

Global Burden of Diseases, Injuries, and Risk Factors Study



The Global Burden of Diseases, Injuries, and Risk Factors study was released by the Institute for Health Metrics and Evaluation (IHME) and was published in the medical journal The Lancet. It is the most comprehensive worldwide observational epidemiological study to date. It describes mortality and morbidity from major diseases, injuries and risk factors to health at global, national and regional levels.

Hereby, analysing the findings of the report.

About Global Burden of Disease Study

The Global Burden of Disease Study is a comprehensive regional and global assessment of mortality and disability from major diseases, injuries, and risk factors. The study was initiated in 1992 as a collaborative effort of hundreds of experts worldwide, including researchers at the World Health Organization (WHO), Harvard School of Public Health, the Institute for Health Metrics and Evaluation (IHME), and the World Bank. The 2010 Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) is a complete assessment of data on diseases and injuries. The study product is a set of comprehensive and comparable estimates of the burden of diseases, injuries, and risk factors for two time periods: 1990 and 2005. The 2010 GBD study objectives were to: (1) revise figures for 1990 based on new data and improved techniques and to generate new estimates for 2005; and (2) to develop sets of tools to enable researchers around the world to apply GBD techniques and produce rigorous and systematic burden estimates.

The Global Burden of Diseases, Injuries, and Risk Factors study is put together by the Institute for Health Metrics and Evaluation (IHME), an independent population health research centre associated with the University of Washington, along with a consortium of 2,300 researchers in more than 130 countries. The HAQ Index is based on death rates from 32 ailments that could be avoided by timely medical intervention.

Findings of the Report

- Top five causes of death or injury are:
 - Ischemic heart disease
 - Cerbrovascular disease





- Diarrhea
- Diabetes mellitus
- Neonatal pre-term birth complications
- India's rank in the healthcare access and quality (HAQ) index: 154 out of 195 countries
 - India's downward slide in the rankings indicates that it has failed to achieve health care targets, especially those concerning neo-natal disorders, maternal health, tuberculosis, and rheumatic heart disease. Last year, India was ranked 143 among 188 countries.

Neo-natal mortality:

- For neo-natal mortality in the HAQ index, India scored 14 on a scale of 1 to
- Afghanistan scored 19/100 and Somalia scored 21/100.
- This shows that newborns in India have lesser chance of survival as compared to Afghanistan and Somalia.

Health care index:

- Andorra was the highest ranked with a score of 95.
- Central African Republic was the lowest ranked with a score of 29.
- India's score is 44.8. In the sub-continent, Sri Lanka (72.8), Bangladesh (51.7), Bhutan (52.7), and Nepal (50.8) all fared better then India.

Child Mortality in India: Reasons and steps needed

Childhood mortality is one of the important indicators of a country's general medical and public health conditions, and consequently, the country's level of socio-economic development. Its decline is therefore not only desirable but also indicative of an improvement in general living standards.

The death of every other newborn in India is either due to low birth weight (LBW) or premature delivery. An infant is said to have LBW when she is under 2.5 kg (5.5 pounds) at birth. A premature or preterm baby is one born alive before the completion of 37 weeks of pregnancy, according to the World Health Organization (WHO).

In India, of all infants who died before they completed 29 days post-birth, 48.1% suffered from LBW and premature birth, according to the Causes of Death Statistics, 2010-13 report by the census office. This figure was 35.9% for children under one year of age, and 29.8% for those in the 0-4 age group.

LBW is a complex syndrome caused by two factors-preterm birth and a foetus too small for his/her gestational age. However, the overlap between these two situations has the worst outcomes.

Health outcomes of newborns are shaped by biological, social and economic factors along with the cultural environment. This makes the task more complex and demanding. Moreover, newborn's health is clearly dependent on the health of mothers. The health of an adolescent girl impacts on pregnancy; the health of a pregnant woman on the health of the newborn and therefore, care during various life stages becomes important.

Thus the three underlying reasons for LBW are:

Poor nutritional status before conception,



- Short stature (mostly due to under-nutrition and infections during childhood),
- Poor nutrition during pregnancy.

Up to two thirds of newborn deaths could be prevented if skilled health workers perform effective health measures at birth and during the first week of life.

Thus government has launched the India Newborn Action Plan (INAP) with the aim of ending preventable newborn deaths and stillbirths by 2030. INAP's main strategy is called Kangaroo Mother Care (KMC). It creates a womb-like environment for the newborn that provides the four basic needs of the baby - Warmth, food, love and protection – and significantly benefits all newborns, especially those who are preterm or suffer from LBW.

Generally, KMC is advocated for all newborns weighing less than 2.5 kg at birth. However, in India, because of the huge burden of LBW, INAP has recommended facility-based KMC for newborns with birth weight less than 2 kg on priority basis.

Issues with the Government Programmes

That level of expenditure puts India behind countries like China and Afghanistan. The U.S. government spends about 8.3% of its GDP on healthcare.

There are still not enough anganwadis or anganwadi workers, and they lack adequate resources to meet all the nutritional requirements of the pregnant and lactating mothers, infants and small children who need their services. If the declared norm of one anganwadi per 1000 population is to be met, there should be 14 lakh anganwadis; currently, only around 10 lakh are estimated to be operational. Even with the 14 lakh centres, each one will be dealing with 100 children alone, not counting adolescent girls, pregnant women and lactating mothers.

Poor coverage of needy groups under the scheme is also a consequence of the location of the anganwadi centre, which typically tends to be in the main village or in upper or dominant caste hamlets in rural areas. This restricts the access to such services by deprived communities such as SCs and STs, who often live slightly apart from the centre.

The study has found that health workers who supported women through a cycle of meetings and programs helped reduce neo-natal mortality by 31% in two years, with especially strong reductions among the most marginalized mothers. ASHA workers can successfully reduce neo-natal mortality through participatory meetings with women's groups. Thus the anganwadi system should be improved and proper training should be provided to the workers for reducing the new born mortality rate.





Prelims News



Hereby, compiling the important short notes of May (16 to 31), 2017.

Indian Culture

P. K. NARAYANAN NAMBIAR

- ► He is an Indian musician known:
 - As one of the masters of Koodiyattom, and
 - For his expertise in Mizhavu.
- ➤ In 2008, he was awarded Padma Shri for his services to the art. He is the only 'mizhavu' maestro to be honored with a Padma Shri.

Mizhavu

- ➤ Mizhavu is the main accompanying percussion instrument for the art forms Koothu and Kutivattam.
- ➤ Mizhavu has a prominent role in the origin of a popular art form, Thullal in Kerala.

Composition:

- ➤ The Mizhavu is basically a large copper pot which has wet calf skin tightened around its mouth.
- ➤ The tone of the instrument increases as the skin dries up.
- ► Earlier, the instrument was made of clay which was later replaced by copper.

How is it played?

▶ It is played with the palm and fingers.

Mizhavana:

➤ The Mizhavu is kept in a wooden box (known in Malayalm as Mizhavana) so that it does not touch the floor.

GIRIJA DEVI

- ➤ She is an Indian classical singer of the Seniya and Banaras gharanas.
- ➤ She is regarded as the queen of Thumri.
- ➤ Key awards received by her:
 - Padma Vibhushan (2016)

- Sangeet Natak Akademi Award (1977)
- Sangeet Natak Akademi Fellowship (2010)

Thumri

- ➤ Thumri is a common style of light classical music.
- ➤ Literal meaning: The term 'thumri' is derived from the word thumakna which means "to walk with dancing steps so as to make the anklebells tinkle." The form is, thus, connected with dance, dramatic gestures and mild eroticism.
- ➤ Theme: Theme is romantic and devotional in nature, and usually revolves around a girl's love for Krishna.
- Lyrics: The language is a dialect of Hindi called Brij bhasha.
- ➤ Rag: This style is characterized by a greater flexibility with the rag.
- ➤ Dadra vs Thumri:
 - Thumri is usually sung in slow tempo and Dadra is bit faster.
 - Thumri mostly says purely about the human love relationship. But Dadra mostly depict the nature, seasonal variation and the human sentiments in that reference.

KALIBANGAN

Context

► Kalibangan museum was reopened to the public after a gap of one-and-a-half years.

Kalbangan museum

- ▶ Location: Hanumangarh district of Rajasthan.
- ➤ Established in 1983.
- ➤ **Objective:** To house the excavated materials found from the excavation conducted between 1961-69 on this Harappan site.



▶ The museum displays artefacts like Harappan seals, bangles, terracotta objects and figurines, bricks and the well-known six fabric pottery repertoire from the early Harappan civilisation of 3000 to 2700 B.C. in the region.

Kalibangan

➤ Nomenclature:

- It literally means black bangles.
- It derives its name from the fragments of black bangles which were found at the surface of its mounds

➤ Kev features:

- Unique fire altars: 7 fire altars in a row have been found. The Fire altars discovered at Kalibangan reveal that the people were ritualistic and believed in worship of fire.
- World's earliest attested ploughed field: Kalibangan has given the evidence of the earliest (2800 BC) ploughed agricultural field ever revealed through an excavation".
- There was no drainage system in Kalibangan.

Six fabric pottery was also found.

- ▶ The pottery here is characterized by six fabrics labelled A, B, C, D, E and F.
- ► Fabrics A, B, and D can be clubbed together. They are red painted.
 - Fabric-A is carelessly potted in spite of use of potter's wheel. It contains designs in lightblack.
 - Fabric-B shows marked improvement in finishing. Flowers, animals were painted in black on red background.
 - Fabric-C was distinguished by violet tinge and fine polish, with designs in black.
 - Fabric-D contained designs of slanted lines or semicircles in some.
 - Fabric-E was light colored.
 - Fabric-F was grey.

PRATYANGIRA / **VEDAGIRISWARAR TEMPLE**

Context

► A 1,046-year-old stone idol of Narasimmee, stolen from the Vriddhagiriswarar temple nearly 15 years ago, was returned to Tamil Nadu by Australia.



Pratyangira

- ▶ It is also called as Atharvana Bhadrakaali, Narasimhi or Narashimhika.
- ➤ She is regarded as a Hindu Goddess.
- ▶ She is described as a goddess with a lioness's face and a human body.
- ▶ This combination of lion and human forms represents the balance of good and evil.

Vedagiriswarar temple

▶ Location:

■ Tirukalukundram (also known Thirukazhukundram), in Kanchipuram, Tamil Nadu.



- ➤ Primary deity: Vedhagireeswarar (Shiva).
- Architectural styles: Dravidian architecture.
- ➤ Vedagiriswarar temple complex is popularly known as Kazhugu koil (Eagle temple).
- ➤ The complex consists of two temple structures,
 - One in the foothill (This large temple hilltop temple houses the deity of Shiva, known as Vedagiriswarar).
 - The other atop the hill (The temple at the foothills is dedicated to his consort Parvati, known here as Thiripurasundari Amman).
- ➤ The ancient Chola temple of Vriddhagiriswarar was commissioned by Sembiyan Mahadevi, among the most powerful queens of the Chola empire.



Geographical News

HENDERSON ISLAND

Context

- According to a research paper published by marine scientists, Henderson Island has the highest density of anthropogenic debris recorded anywhere in the world, with 99.8% of the pollution plastic.
- ➤ Nearly 38m pieces of plastic were estimated, weighing a combined 17.6 tonnes.
- ➤ The 17.6 tonnes of plastic on Henderson accounted for only 1.98 seconds' worth of annual production.

Henderson Island

Where is it located?



- It is an uninhabited island in the South Pacific Ocean.
- Henderson Island with Pitcairn, Ducie and Oeno Islands, forms the Pitcairn Island Group.
- In 1902 Henderson was annexed to the Pitcairn Islands colony, now a South Pacific British Overseas Territory.
- It is a UNESCO World Heritage Site since 1988.
- Henderson Island is a raised coral atoll. It is one of the world's last two raised coral atolls.
- A raised coral atoll or uplifted coral atoll is an atoll that has been lifted high enough above sea level by tectonic forces to protect it from scouring by storms and enable soils. This enables diverse & often endemic species of flora and fauna to develop.

What is the reason behind it being so densely polluted?

▶ Henderson Island is at the edge of a vortex of ocean currents known as the South Pacific gyre, which tends to capture and hold floating trash.

- An ocean gyre is a very large gyrating mass of water located in the Atlantic, Pacific and Indian Oceans. The water spins around a central axis at a very slow speed similar to a whirlpool.
- Improperly disposed of plastics that find their way into the oceans tend to accumulate into ocean gyres. The swirling action of ocean gyres causes any debris caught in it to gradually make its way to the center where there is little water movement. It is concerning because its effect on sea-life like plankton is uncertain but assumed to be detrimental.

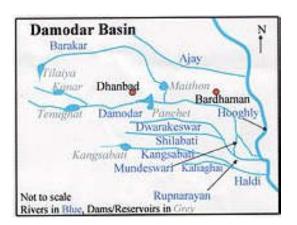
RUPNARAYAN RIVER

Context

 Residents of Mayachar island are living in constant fear of losing their homes due to land erosion by river Rupnarayan.

River Rupnarayan

- ➤ It is a river in West Bengal.
- Course of the river:
 - It begins as the Dhaleswari (Dhalkisor) in the Chhota Nagpur plateau foothills northeast of the town of Purulia in west bengal.
 - It flows southeasterly and in the town of Bankura it is known as the Dwarakeswar river.
 - Near the town of Ghatal it is joined by the Shilabati river and the combined river is know as Rupnarayan.
 - Finally, it joins the Hoogli River.



Mayachar island

► Location: it is located on mouth of River Rupnarayan in the Purba Medinipur district of West Bengal.



KOYNA DAM

Context

➤ Maharashtra has released water from Koyna dam to alleviate water crisis in Karnataka.

Koyna dam

- ▶ Location:
 - It is located in Satara district of Maharahstra.
- ➤ The dam is constructed on Koyna River
- ▶ The dam has created the Shivasagar Lake.

Koyna River

- ➤ The Koyna River is a tributary of the Krishna River.
- ➤ Course of the river
 - The river originates in Mahableshwar. Satara district and meets the Krishna River in Karad. satara district.
- ▶ Unlike most of the other rivers in Maharashtra which flow East-West direction, the Koyna river flows in North-South direction.
- ➤ Mahabaleshwar is the source of five rivers namely:
 - Krishna,
 - Koyna,
 - Venna (Veni),
 - Savitri, and
 - Gayatri.

DHOLA-SADIYA BRIDGE (BHUPEN HAZARIKA SETU)

Context:

➤ PM Modi has inaugurated the Dhola-Sadiya Bridge.

▶ The Bridge has been named after Bhupen Hazarika, famous musician, poet and lyricist from Assam.

Where is the bridge located?

- ▶ The bridge has been built over river Lohit, a tributary of the Brahmaputra, linking Dhola to Sadiya in Assam.
- ➤ The bridge is located in Tinsukia district.
- ▶ It is a 9.15 km bridge making it the country's longest river bridge.
- ➤ Under which program it has been constructed?
 - The bridge has been constructed as a part of the Arunachal Package of Roads and Highways under the Special Accelerated Road Development Programme For North East (SARDP-NE).
 - SARDP-NE is a program of Ministry of Road Transport and Highways.
- Significance of the bridge?
 - 24x7 connectivity: It will ensure 24X7 connectivity between upper Assam and Eastern part of Arunachal Pradesh.
 - Reduces travel time: The bridge will reduce the distance from Rupai on NH- 37 in Assam to Meka/Roing on NH-52 in Arunachal Pradesh by 165 KM. The travel time between the two places will come down by total five hour.
 - Strategic significance: The bridge will make it much easier for Army to reach outposts near the China border.

Science and Environment

SOUTHERN BIRD-WING BUTTERFLY

Context

Southern bird wing butterfly has been officially designated as 'state butterfly' of Karnataka.



Key features:

➤ With a wingspan of 140-190 mm, it is the largest butterfly of India.

Where is it found?

- ➤ Geographical spread: It is endemic to south India, particularly Karnataka. It is mainly found in the southern and central Western Ghats.
- ► Habitat: Found in diverse habitats from low-land evergreen forests near the coast to mixed deciduous forests, dry scrub and agricultural fields.

Conservation status:

➤ Despite its restricted range and endemicity, the butterfly has not been designated as threatened by IUCN. But IUCN does recommend continuous monitoring.



Why was it picked up by Karnataka?

➤ This butterfly has distinctive red and yellow colors which resembles Karnataka colors.

What is the significance of designating it as a state butterfly?

It will raise awareness of the importance of butterflies in ecosystem.

Is Karnataka the first state to designate a state butterfly?

- ▶ No. Karnataka is second state in the country to adopt a state butterfly.
- ➤ Maharashtra had chosen the blue Mormon in 2015.

UTERUS TRANSPLANT

Context:

India's first Uterus transplant was performed by doctors in Pune on a woman from Solapur district.

What is it?

➤ A uterus transplant will enable women with absent or diseased uteruses to carry a pregnancy to term after a donor uterus is transplanted into them.

How is it performed?

- ➤ First the donor undergoes a surgery for the removal of her uterus.
- Blood vessels and vascular pedicels around the uterus have to be carefully preserved and then re-attached to the recipient.
- ➤ After the transplant, the recipient is put on immune-suppressants so that her body does not reject the donor's organ.
- ➤ The recipient waits for minimum one year before attempting a pregnancy as an In Vitro Fertility (IVF) procedure.
- ➤ The delivery is carried out through a C-section and the transplanted uterus is removed after the delivery so that she does not have be on immune-suppressants continuously.

SOLIBACILLUS KALAMII

Context

- ▶ NASA scientists have discovered a new bacterial specie on international space station (ISS).
- ➤ The new bacteria specie is called as Solibacillus Kalamii.
 - The specie is named after Dr. Abdul kalam. He was a renowned aerospace scientist and had his early training at NASA.

- The genus name is solibacillus which is a spore forming bacteria.
- Solibaciluus Kalamii has never been found on earth till date. However it is not an extraterrestrial life.

International Space Station (ISS)

- ➤ Objective: The ISS serves as a microgravity and space environment research laboratory in which crew members conduct experiments in biology, physics, astronomy, meteorology etc.
- ➤ The ISS programme is a joint project among five participating space agencies:
 - National Aeronautics and Space Administration (NASA)
 - Canadian Space Agency (CSA)
 - European Space Agency (ESA),
 - Roscosmos (of Russia) and
 - Japan Aerospace Exploration Agency (JAXA)
- ▶ It is the largest man-made body in low Earth
- ➤ A low Earth orbit (LEO) is an orbit around Earth with an altitude between 160 kilometers and 2,000 kilometers.

QUASAR

Context

 Astronomers have created the first-ever map of universe based entirely on the position of quasars.

Quasars

- Quasars are incredibly light & distant nucleus of very high luminosity.
- Reasons for their brightness:
 - They are extremely bright due to supermassive black holes found at their centers.
 - As matter & energy fall into the supermassive black hole of quasar, they heat up to a high temperature and begin to glow.
- ➤ The word quasar is short for "quasi-stellar radio source". This name, which means star-like emitters of radio waves, was given in the 1960s when quasars were first detected.
- ▶ Most quasars are larger than our solar system.

CHITALE COMMITTEE ON DESILTATION OF GANGA

Context

 Chitale committee on Desiltation of Ganga submitted it's report.



Key facts

- ▶ Formation: The committee was constituted in 2016 by the Ministry of Water Resources River.
- ▶ Objective: to prepare guidelines for desiltation of river Ganga from Bhimgauda (Uttarakhand) to Farakka (West Bengal).
- ➤ Chairman: Madhav Chitale (an Expert Member of National Ganga River Basin Authority (NGRBA)).

views of the committee Key and recommendations made by it

- ▶ It is impossible to apply a one-size-fit-all approach to sediment management as local factors (topography, river control structure, tree cover etc.) have a large impact on the sediment loads in rivers.
- ➤ Instead of "keeping the silt away", strategy of giving the silt way" should be adopted. It is because:
 - Erosion, movement and deposition of sediment are natural regulating functions of river and Sediment equilibrium of river should be maintained.
 - De-siltation works can improve hydraulic performance of the river but indiscriminate de-silting would cause adverse impacts on river e-flow like River bed degradation, Channel widening, etc.
- ▶ Catchment area treatment and watershed development work should be undertaken as they are necessary to reduce silt inflow.
- ▶ Provide the river sufficient areas of flood plains & lakes to moderate flood level. Encroachment of flood plain & disconnection of lakes from river should be avoided.
- ➤ The Ganga flood control commission should conduct studies with respect to sediment management in river Ganga.
- Prepare sand registry describing the previous desilting activities. After that only, further de-silting activity should be undertaken.
- Any bridges across River Ganga which are causing large afflux (more than 1% of normal depth) should be modified to reduce the afflux, which in turn will also reduce the sediment deposition and erosion of banks on the upstream.

MAILI SE NIRMAL YAMUNA

Context

▶ National Green Tribunal (NGT) issued directions while hearing a plea seeking implementation of

- the "Maili se Nirmal Yamuna Revitalisation Project 2017".
- ➤ The directions issued are as follows:
 - It has banned open defecation and dumping of waste on the Yamuna floodplains. Those who violate the order will be fined Rs.5,000.
 - A committee has been constituted to oversee the cleaning of Yamuna and construction of sewage treatment plant. The committee will be headed by Delhi Jal Board
 - Under Phase 1 of the "Maili se Nirmal Yamuna Revitalisation Project 2017", Sewage treatment plants at Delhi Gate and Najafgarh would be treat almost 67% of the pollutants reaching the Yamuna.

Maili se Nirmal Yamuna

- ▶ In January 2015, National Green Tribunal came out with its Restoration Plan for Yamuna to make it 'Nirmal' from 'Maili' by 2017.
- ▶ Key points of plan
 - Imposed hefty fines on dumping any waste be it religious, construction or any other material — in the Yamuna.
 - Existing construction on Yamuna floodplains in Delhi be reviewed; further construction on floodplains be banned.
 - Formed a monitoring committee to be headed by the Secretary of the Ministry of Environment & Forests which will submit a quarterly report to the NGT
 - All industrial units must have a fully functional effluent treatment plant.

ESSENTIAL MEDICINES

Context

➤ The National Pharmaceutical Pricing Authority (NPPA) has capped the prices of 31 more drugs. With these 31 drugs, the NPPA has brought 791 medicines under price control.

What is an Essential Medicine?

➤ According to World Health Organization (WHO), Essential medicines are the medicines that "satisfy the priority health care needs of the population". People should have access to these medicines at all times in sufficient amounts. The prices should be at generally affordable levels.

What is National List of Essential Medicines (NLEM)?



www.iasscore.in



- ▶ NLEM is a list of medicines prepared by the Ministry of Health and Family Welfare based on essentiality and made part of the Drugs Price Control Orders (DPCO), 2013 (DPCO 2013) in the form of first Schedule of the DPCO 2013.
- ▶ NLEM is the basis for the National Pharmaceutical Pricing Authority (NPPA), to revise the list of medicines that should come under government price control
- ➤ The first National List of Essential Medicines (NLEM) of India was prepared and released in 1996. This list was subsequently revised in 2003, 2011 and 2015.

What is Drugs Price Control Orders (DPCO), 2013 (DPCO 2013)?

- ▶ DPCO 2013 is an order issued by the Central Government having power under section 3 of the Essential Commodity Act, 1955 which enables it to fix the prices of essential bulk drugs and their formulations mentioned under the NLEM.
- ▶ The formulations which are included in NLEM i.e. first Schedule of the DPCO 2013 are known as Scheduled Formulations.
- Any person acting in contravention of the DPCO 2013 is punishable under section 7 of the Essential Commodities Act, 1955.

About National Pharmaceutical Pricing Authority (NPPA)

- ➤ Established in: 1997.
- ➤ Type of body: It has been set up as per executive order and thus not a statutory body.
- ▶ Objectives: It is a government regulatory agency which performs the following functions
 - Controlling the prices of pharmaceutical drugs in India;
 - Enforce the Drugs Price Control Order (DPCO), 2013; and
 - Advising the Government of India in matters of drug policies and pricing.
- Parent agency: Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers.

Polity and Governance

EVM HACKATHON

Context

 Political parties in some states including Uttar Pradesh, Uttarakhand and Punjab alleged that the electronic voting machines used in recently conducted Assembly elections were tampered with therefore the Election Commission of India has invited them to try and tamper with the electronic voting machines (EVMs).

Conditions

The ECI has put forth some conditions for the supposed hackathon such as:

- ➤ The challenge will only be open to up to three members nominated by national and state parties which contested assembly polls in five states.
- ➤ Each participating group will be given four hours to hack the machine.
- ► Foreign experts have been barred from participating in the challenge.
- ▶ Participants can use a combination of keys on EVMs or communication devices such as cell phones and Bluetooth to tamper with the machines to change the results.

About EVM

- ➤ An Electronic Voting Machine consists of two Units - a Control Unit and a Balloting Unit joined by a five-meter cable.
- ➤ The Control Unit is with the Presiding Officer or a Polling Officer and the Balloting Unit is placed inside the voting compartment.
- ▶ Instead of issuing a ballot paper, the Polling Officer in-charge of the Control Unit will press the Ballot Button. This will enable the voter to cast his vote by pressing the blue button on the Balloting Unit against the candidate and symbol of his choice.

Advantages of EVM

➤ The counting time is a lot less than in the paper ballot system and it saves paper.

Which countries have removed EVM?

The Netherlands and Germany have done away with them completely, while in the USA individual states can choose whether to use EVM or paper ballot. Then there is Japan, the bastion of all things high-tech, which started the EVM project but did away with it without every using it in an election.

How VVPAT function?

To increase the confidence in the process of EVMs, the Voter Verified Paper Audit Trail has been



proposed. It is a method that provides feedback to voters. It is an independent verification printer machine and is attached to electronic voting machines. It allows voters to verify if their vote has gone to the intended candidate.

When a voter presses a button in the EVM, a paper slip is printed through the VVPAT. The slip contains the poll symbol and name of the candidate. It allows the voter to verify his/her choice. After being visible to the voter from a glass case in the VVPAT for seven seconds, the ballot slip will be cut and dropped into the drop box in the VVPAT machine and a beep will be heard. VVPAT machines can be accessed by polling officers only.

TEN INDIGENOUS PHWR NUCLEAR **REACTORS**

Context

- ▶ Union Cabinet has given its approval for construction of 10 units of India's indigenous Pressurized Heavy Water Reactors (PHWR).
- ➤ The total installed capacity of the Plants will be 7000 MW.
- ➤ Government hasn't provided any timeline for their completion.

Benefits of this move

- ► It will fast-track India's domestic nuclear power program. It will result in a significant augmentation of nuclear power generation capacity by adding about 7,000 MWe capacity.
- ▶ It will bring substantial economies of scale and will maximize cost and time efficiencies by adopting fleet mode for execution.
- ▶ It will strengthen India's credentials as a major nuclear manufacturing powerhouse.
- ➤ The approval by cabinet shows the government's strong belief in the capability of our nuclear scientists have attained over all aspects of indigenous PHWR technology.
- ▶ It will create about 33,400 jobs in direct and indirect employment.
- ➤ The ten new units will be a fully homegrown initiative. It would be one of the flagship "Make in India" projects in this sector.

NTRO UNDER INTELLIGENCE ACT

Context

▶ The Union Home Ministry has listed National Technical Research Organisation (NTRO) under The Intelligence Organizations (Restriction of Rights) Act, 1985.

About Intelligence Organizations (Restriction of Rights) Act, 1985

Agencies included under the act:

- ▶ IB, R&AW and NTRO are covered by the act.
- Other security agencies like the Directorate of Revenue Intelligence (DRI), the National Investigation Agency (NIA) and the Narcotics Control Bureau (NCB) have also been asking the Home Ministry to include them under the Intelligence Organisations Act.

Salient features of the Act:

The Act puts the following restriction on the agency notified under the act

- ➤ Prevents employees the agency from forming unions/associations and
- ➤ Puts restrictions on the employee's freedom of speech (It bars any communication with the press, or publishing a book/document without the permission of the head of the intelligence organization).

This was done to ensure that the intelligence officials do not leak out information and embarrass the government.

About National Technical Research Organisation (NTRO)

The National Technical Research Organisation (NTRO) is a technical intelligence agency under the National Security Advisor in the Prime Minister's Office, India. It was set up in 2004. It also includes National Institute of Cryptology Research and Development (NICRD), which is first of its kind in Asia.

The agency develops technology capabilities in aviation and remote sensing, data gathering and processing, cyber security, cryptology systems, strategic hardware and software development and strategic monitoring.

The National Critical Infrastructure Protection Centre, an agency under the control of National Technical Research Organisation, has been created to monitor, intercept and assess threats to crucial infrastructure and other vital installations from intelligence gathered using sensors and platforms which include satellites, underwater buoys, drones, VSAT-terminal locators and fiber-optic cable nodal tap points.

Significance

By this NTRO will have the same "norms of conduct" as the Intelligence Bureau (IB) and the Research and Analysis Wing (R&AW). This would not give the NTRO any powers to intercept. However it would ensure that there are strict norms of conduct in place.



NATIONAL COMMISSION FOR **MINORITIES**

Context

It is a forum for appeal, set up to safeguard the rights and interests of India's minority. Government has appointed Syed Ghayorul Hasan Rizvi as the Chairman of National Commission for Minorities (NCM). Apart from him 5 other members were appointed to NCM.

Type of body

Unlike the National Commission for SCs and for STs, it is not a constitutional body. It was set up by an Act of Parliament in 1992. The Constitution (One Hundred and Third Amendment) Bill, 2004, proposed to establish a new Commission, with constitutional status. But due to debate over who is a 'minority', the Bill lapsed.

What is the composition of the commission?

- ► The Commission shall consist of a Chairperson, a Vice Chairperson and five Members to be nominated by the Central Government.
- ▶ All members shall be from amongst the minority communities.

What are its functions?

The NCM Act lists 9 functions of the Commission:

- ▶ to evaluate the progress of the development of minorities under the Union and states;
- ▶ to monitor the working of safeguards provided in the Constitution and in union and state laws;
- ▶ to make recommendations for effective implementation of safeguards for the protection of minority interests;
- ▶ to look into, and take up, specific complaints regarding deprivation of rights and safeguards of minorities:
- ▶ to get problems of discrimination against minorities studied, and recommend ways to remove them:
- ▶ to conduct studies, research, analysis on socioeconomic and educational development of minorities:
- ▶ to suggest appropriate measures in respect of any minority to be undertaken by central or state governments;
- ▶ to make periodic or special reports to the Centre on any matter concerning minorities; especially their difficulties;
- ▶ to take up any other matter which may be referred to it by the central government.

What are its powers?

The Commission has the following powers:

- Summoning and enforcing the attendance of any person from any part of India and examining him
- Requiring the discovery and production of any document.
- Receiving evidence on affidavit.
- Requisitioning any public record or copy thereof from any court or office.
- Issuing commissions for the examination of witnesses and documents.

Is it a powerful body?

 Constitutional bodies have greater autonomy, they can take up and inquire into many matters suo motu, and have powers of a civil court. Thus NCM lacks these powers.

Why is NCM still relevant?

- ➤ While the NCM's recommendations are often ignored, the Centre is required to present its reports, along with an action taken report, to Parliament.
- ▶ In cases involving states, the NCM is obliged to advise or act in some way.
- ➤ Also in the current atmosphere of insecurity among many sections of the minority population, NCM provides a platform for articulation of their grievances.

RAIL SWACHH REPORT

Context

- ► Ministry of Railways has released the Rail Swachh Report-2017.
- The survey was conducted by
 - Indian Railway Catering and Tourism Corporation (IRCTC), and
 - Quality council of India.

Key highlights of the report

- ➤ The survey was conducted in 407 stations.
- ➤ Categories of stations:
 - Railway stations are categorized A1, A, B, C, D, E and F — based on their annual passenger revenue by the ministry.
 - The stations that contribute over Rs 50 crore annually are in the 'A1' category.
 - Stations that contribute between Rs 6 crore and Rs 50 crore come under the 'A' category.
- Cleanest stations in Α1 category: Vishakhapatnam (Andhra Pradesh) followed by Secunderabad (telangana) and Jammu Tawi.



- ➤ Dirtiest station in A1 category: Darbhanga (Bihar).
- ➤ Cleanest stations in A category: Beas (Punjab) followed by Khammam (Telangana) and Ahmedanagar (Maharashtra).
- > Parameters: The rankings are based on three parameters
 - Self-evaluation.
 - Third party observation, and
 - Passenger feedback.
- Criteria on which they were evaluated: Clean toilets at platforms, clean tracks and dustbins at stations were some of the criteria.

About Quality Council of India (QCI)

- ➤ Established in: 1997.
- ➤ Type of body: IT was setup by Government of India jointly with Indian Industry as a non-profit autonomous society registered under Societies Registration Act XXI of 1860.
- ➤ Parent agencies: It is an autonomous body under the administrative control of the Department of industrial policy & promotion (DIPP).
- Objectives:
 - To establish and operate the National Accreditation Structure for conformity assessment bodies.
 - Providing accreditation in the field of education, health and quality promotion.

MATERNITY BENEFIT PROGRAM

Context

▶ Union cabinet has approved pan-India implementation of Maternity Benefit Program.

About the Maternity Benefit Program

➤ Target Group: All eligible Pregnant Women and Lactating Mothers (PW&LM), excluding those who are in regular employment with the Central/ state Government or Public Sector Undertakings or those who are in receipt of similar benefits under any law for the time being.

- > What will be done under the scheme? Partial compensation for the wage loss will be provided in terms of cash incentives so that the woman can take adequate rest before and after delivery of the first living child.
- ➤ Objective of the scheme: The cash incentives provided would lead to improved health seeking behaviour amongst the Pregnant Women and Lactating Mother (PW&LM) to reduce the effects of under-nutrition namely stunting, wasting and other related problems.
- Why did the government this launched this scheme? Normally, the first pregnancy of a woman exposes her to new kinds of challenges and stress. Thus the scheme provide support to the mother for safe delivery and immunization of her first living child. The improved health care seeking behaviour of the PW&LM would lead to better health status for the mother and the child.
- ➤ Amount of cash incentive: Rs.5000/- will be given to PW&LM in three installment for the birth of the first live child by Ministry of women and child development and the remaining cash incentive after institutional delivery so that on an average, a woman will get Rs. 6000/-.
- ➤ Mode of cash transfer to the Beneficiaries: The conditional cash transfer scheme would be in DBT mode.

JAN KI BAAT

Context

 Government has launched Jan ki Baat (voice of the people) on PM's personal app, the Namo App.

What is it?

- ▶ It is a survey (closing June 15) with an exhaustive list of questions and multiple choice answers ranging from very bad to excellent ratings.
- ➤ Nearly all government schemes launched by the current dispensation have been listed for rating.
- ➤ The survey also asks respondents to name one positive and one negative thing about the NDA government.

Economy News

NATIONAL EMPLOYMENT POLICY SOON

Context

Union Labor Ministry stated to design new sector-wise National Employment Policy in this financial year.

What are the proposed objectives of the policy?

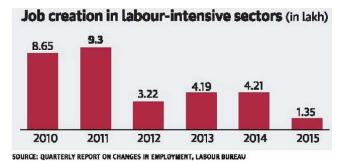
- ➤ To create jobs as employment generations is falling down not globally, but in India also.
- ➤ To ensure a transition from informal to formal jobs (as whatever jobs creation is happening is happening in informal sector only).

in 2014.



What is the present status of employment generation?

 View of quarterly survey of industries (by labor bureau)



- The pace of job creation fell to a six-year low in 2015 with 1.35 lakh new jobs being created compared with 4.21 lakh new jobs
- ➤ View of fifth annual employment-unemployment survey (by labor bureau)
 - Unemployment rate rose to a five-year high of 5% in 2015-16 compared with 4.9% in 2013-14 and 4.7% in 2012-13.

OPERATION CLEAN PORTAL

Context

➤ The Union Minister of Finance officially launched the Portal of **Operation Clean Money** so as to bring illegal wealth on books.

What are the salient features of this portal? The salient features are as follows:

- Providing comprehensive information at one place related to verification process and other issues.
- ➤ Enabling Citizen Engagement for creating a tax compliant society where every Indian takes pride in paying taxes. Citizens would be able to support the Operation Clean Money by taking pledge, educating fellow citizens, and sharing their experiences.
- ➤ Enabling Transparent Tax Administration by sharing status reports (including sanitized cases and explanation of verification issues) and thematic analysis reports (e.g. taxpayer segment analysis of cash deposit data).

The ITD on-boarded two specialised data analytics agencies and a business process management agency to augment departmental capability in analyzing large volumes of cash deposit data, track the compliance status of taxpayers and reporting entities.

Phase II of Operation Clean Money

In Phase II of Operation Clean Money, the high risk cases will be handled by selecting appropriate enforcement action (verification, search, survey, scrutiny). A targeted campaign will be initiated in cases with identified risk issues. The key components of the targeted campaign are:

- ➤ Communication of specific issue through digital channels (Email, SMS etc.).
- ► Providing detailed explanation to create environment of transparency.
- ➤ Sharing investigation findings for specific segments (e.g. Jewellers, petrol pump, traders, property purchasers etc.).
- ➤ Centralised monitoring and gradual escalation of inadequate response cases for enforcement action.

NEW DEFINITION OF START UPS

Context

 Government of India has amended the definition of a Startup.

What changes have been made to the definition of Startups?

- ➤ Age of Startup increased:
 - An entity shall be considered as a Startup up to seven years from the date of its incorporation/ registration. Earlier it was 5 years.
 - However, in the case of Startups in the Biotechnology sector, the period shall be up to ten years.
 - This was done because of the long gestation period by Startups to establish.
- No letter of recommendation is required from an incubator/industry association for recognition or tax benefits
- ➤ Potential of Job and Wealth Creation: The scope of definition has been widened to include scalability of business model with potential of employment generation or wealth creation.

Why these changes have been made?

- ➤ To promote entrepreneurship in the country.
- ➤ The above changes will ensure ease of starting up new business.

What is start-up India?

- ➤ When launched: January 2016.
- ➤ Objective: To build a strong eco-system for nurturing innovation and Startups in the country to drive economic growth and generate employment.



ELECTRIC VEHICLES

Context

- ➤ Government of India launched India's first multimodal electric vehicle project at the Nagpur airport complex.
- ➤ This project brings together e-buses, e-cabs, eautos and e-rickshaws on a single platform, the Ola App, which will enable commuters in Nagpur to book them.
- ▶ The fleet of 200 vehicles consists of 100 of Mahindra's new e20 Plus vehicles, besides those from other manufacturers like Tata Motors, Kinetic and TVS.

What is the government's vision with respect to the electric vehicles?

- ► Government's vision to make India a 100 percent e-vehicle nation.
- > Why is the government promoting evehicles? E-Vehicles can
 - Cut down the huge crude oil bill,
 - Reduce pollution and
 - Create cost effectiveness in transportation.
- > How does the future scenario of evehicles look?
 - Growing demand, coupled with R&D would gradually help to bring down the operational costs, and especially the battery cost.
 - To begin with we should emphasize on commercial vehicles and then on others.

PARTICIPATORY NOTES

Context:

- ▶ The Securities and Exchange Board of India (SEBI) plans to further tighten norms for issuance of offshore derivative instruments (ODIs) and participatory notes (PNs). SEBI has proposed levying a regulatory fee of \$1,000 on every foreign portfolio investor (FPI) that issues ODIs or PNs.
- ➤ Aim is to reduce the exposure investors take via such instruments in the Indian equity market.
- ▶ It has invited public comments on the proposal till June 12, 2017

What are P-notes?

- ➤ Participatory notes also called P-Notes are offshore derivative instruments with Indian shares as underlying assets.
- These instruments are used for making investments in the stock markets.

▶ However, they are not used within the country. They are used outside India for making investments in shares listed in the Indian stock market. That is why they are also called offshore derivative instruments.

Who issues P-Notes?

▶ Participatory notes are issued by brokers and FIIs registered with SEBI.

Why are participatory notes used?

- ➤ Investing through P-Notes is very simple and hence very popular amongst FIIs. Overseas investors who are not registered with SEBI have to go through a lot of scrutiny, such as knowyour-customer norms, before investing in Indian shares.
- ➤ To avoid these hurdles, foreign investors take this route.

Advantages of participatory notes

- ➤ Anonymity: Any entity investing in participatory notes is not required to register with SEBI, whereas all FIIs have to compulsorily get registered. It enables large hedge funds to carry out their operations without disclosing their identity.
- ► Ease of trading: Trading through participatory notes is easy because they are like contract notes transferable by endorsement and delivery.
- ➤ Tax saving: Some of the entities route their investment through participatory notes to take advantage of the tax laws of certain preferred countries.

Disadvantages of P-notes

- ▶ Indian regulators are not very happy about participatory notes because they have no way to know who owns the underlying securities.
- ▶ It is alleged that a lot of unaccounted money made its way to the country through the participatory note route.

STRATEGIC PARTNERSHIP POLICY **PROPOSED**

Context:

➤ Defence ministry has unveiled the Strategic Partnership (SP) policy. This policy is a part of the Defence Procurement Procedure (DPP).

What are the objectives of this policy?

- ➤ To reduce current dependence on imports.
- ➤ To bolster defence manufacturing in India through indigenous private defence firms.



What are the salient features of this policy?

- ➤ The SP model will initially be applicable in four segments: Submarines, Helicopters, Fighter Aircraft and Armoured fighting vehicles (AFV)/ Main Battle Tanks (MBT).
- ➤ Only one Strategic Partner will be selected per segment having 51% ownership.
- ➤ The Strategic Partner will play the role of a System Integrator.
- ➤ Strategic partner will be selected will be based on criteria of inherent capacity and ability of the vendor to emerge as a systems integrator and to set up a vendor network for sourcing.
- ➤ The chosen SP will enter into tie-ups with foreign original equipment manufacturers (OEM).
- ➤ The SP and OEM will jointly supply the required platforms to the armed forces.
- To ensure 'Make in India', only a minimum number of platforms, not exceeding 10-15 per cent of the number of units being procured, can be manufactured in the OEM's premises.

About Defence Procurement Procedure (DPP)-2016 policy

➤ The objective of the policy is to Institutionalise. streamline and simplify defence procurement procedure to give a boost to "Make in India" initiative.

CENTRAL BANK SCOUTS FOR CFO

Context:

▶ The Reserve Bank has decided to have a Chief Financial Officer. Currently, the central bank does not have a dedicated official handling the finance function.

About CFO

- The CFO will be of the rank of executive director.
- He will be responsible for "accurate and timely presentation and reporting of financial information of the central bank."
- ▶ He will also establish accounting policies and procedures and ensure compliance with regulations.
- ▶ He will also be entrusted with the job of communicating the expected and actual financial performance of the apex bank and overseeing its budget processes.
- ➤ The CFO will have oversight of the department of government and bank accounts, corporate strategy and budget department and department of corporate services.

SEVA APP

Context:

➤ Union Minister of State (IC) for Power, Coal, New & Renewable Energy and Mines has launched the Saral Eindhan Vitaran Application (SEVA), developed in-house by Coal India Limited (CIL) for power sector consumers.

About the APP:

- ▶ App will provide a summary of quantity of coal dispatched along with grades for the given day, month, and the latest yearly updates.
- ➤ The app also provides information on rake movement including latest status of indents of rake, allotment and loading.
- The app tracks coal dispatch to 118 power plants through fuel supply agreement (FSA) of around 500 MT. In addition, the dispatch through Special Forward E-Auction and Bridge Linkage from more than 200 dispatch points spread over eight states of the country are also monitored.
- ➤ Daily quantity involved is to the tune of 1.25 million tonnes involving the daily movement of around 195 coal trains besides dispatch through other captive modes of transport like MGR, road, belt, and ropeways among others.
- ➤ This would help consumers making advance logistics planning.

SOFTWARE PROCUREMENT POLICY

Context:

➤ The government of India has floated a Model RFP on Software Procurement Policy to remove inconsistency and help central and state government department and government companies for easy procurement of software products.

Salient features of the Policy

- ➤ The major features of Model RFP provides for:
 - Level playing field, to all stakeholders by defining appropriate pre-qualification and technical evaluation criterion.
 - Aligning legal terms and conditions with the requirements of the IT Industry
 - Template for scope of work and service level agreements
 - Change request mechanisms
 - Dispute resolution
 - Standard contractual terms & conditions





- Standardization of Intellectual property
- Capping the liability, penalty and liquidated damages
- Making payment terms, objective and easier, for industry and Government Department
 - Guidance on simplifying payment related conditions
 - Incorporating the Exchange variations
- Converging Government schemes like Make in India / Preference for Domestically Manufactured Electronic Goods (PMA), provisions for Start-ups and MSMEs
- Leveraging latest technologies like cloud, mobiles, etc.
- Aligned with the General Financial Rule 2017
- Adherence to the latest standards

Proposed Benefits

The software procurement policy will help in making payment terms, objective and easier through guidance on simplifying payment related conditions and incorporating the exchange rate variations.

RENEWABLE ENERGY BONDS

Context:

- ▶ In May 2017, The Union Cabinet Modi gave its approval to Raising of Bonds of Rs. 2360 crores for Renewable Energy.
- ➤ The Bonds will be raised by the Ministry of New & Renewable Energy (MNRE) through the Indian Renewable Energy Development Agency (IREDA) during the 2017-18.
- ▶ The resources raised would be used for developing additional capacity in renewable energy sector by developing solar park, green energy corridor, wind projects etc.

Indian Renewable Energy Development Agency (IREDA)

- ▶ What is it? IREDA is a Public Limited Government Company established as a Non-Banking Financial Institution to extend financial assistance for setting up projects relating to renewable sources of energy.
- ➤ Status: Mini Ratna (Category I).
- ▶ Parent agency: It is under administrative control of Ministry of New and Renewable Energy (MNRE).
- ➤ Established in: 1987.

Miscellaneous News

AFRICAN DEVELOPMENT **BANK GROUP (AFDB)**

The African Development Bank Group (AfDB) is a multilateral development finance institution established to contribute to the economic development and social progress of African countries.

It was established in 1964.

Components: The AfDB comprises three entities:

- ➤ The African Development Bank,
- ➤ The African Development Fund and
- ➤ The Nigeria Trust Fund.

Headquarter: Abidjan, Cote d'Ivoire

India and African development bank linkage

▶ India joined the African Development Fund in 1982, and became a member of the Bank in 1983. India is a non-regional member of the Bank.

About the recent 52nd annual meeting:

The 52nd Annual Meetings of the African Development bank are being held in Gandhinagar, Gujarat from 22 to 26 May 2017.

- ➤ This is the first time that the Annual Meetings of AfDB are being held in India.
- ➤ This is the fourth time that the Annual Meetings of AfDB are being held outside Africa. The first such meeting took place in Valencia, Spain in 2001, the second in Shanghai, China in 2007, and the third in Lisbon, Portugal in 2011. The next meeting of AfDB is scheduled to be held in Busan, South Korea in 2018.

The Indian and Japanese governments have unveiled a vision document for the Asia Africa Growth Corridor.

- ➤ Agriculture: The 2017 Annual Meetings is being held on the theme: "Transforming Agriculture for Wealth Creation in Africa." There is a great scope for a greater synergy between India and Africa in order to achieve our shared goal of rural and agricultural transformation.
- ➤ Industry: GOI organized an India-Africa Dialogue in partnership with Confederation of Indian Industries (CII) to sensitize Indian industry about the Bank's High 5s Agenda, so as to help in building a roadmap of how can Indian industry contribute to 'Industrialize Africa'.



> Renewable energy: India also organized an event on the International Solar Alliance.

BIOPHARMACEUTICALS MISSION

Context:

▶ Union Cabinet has approved the 'Innovate in India empowering biotech entrepreneurs and accelerating inclusive innovation' mission.

Salient features of the mission

- ➤ The National Biotechnology Development Strategy 2015-2020 announced by the DBT lays emphasis on making India ready to meet the challenge of achieving USD 100 billion biotech 2025. industry by To meet this Biopharmaceuticals Mission has been launched.
- ▶ It is a program for development of bio pharmaceuticals through industry-academia collaboration.
- ► Focus areas: The program will focus on development of specific products such as vaccines, biotherapeutics, medical devices and diagnostics.
- ► Implementing agency: Biotechnology Industry Research Assistance Council (BIRAC). It is a public sector undertaking of Department of Biotechnology (DBT).
- ▶ Duration of mission: 5 years.
- ➤ Funding: This program entails an investment of Rs 1,500 crore by it over a period of five years. 50 percent of the cost for the program will come from the World Bank loan.

INDIRA GANDHI PRIZE FOR PEACE, **DISARMAMENT AND DEVELOPMENT-2014**

Context

- ➤ The Indian Space Research Organisation (ISRO) has been presented with the Indira Gandhi Prize for Peace, Disarmament and Development for the year 2014.
- ▶ It was given in recognition of ISRO's pathbreaking achievements including the Mars Orbiter Mission.

About Indira Gandhi prize for peace. disarmament and development

- Instituted in: 1986.
- ➤ Instituted by: Indira Gandhi Memorial Trust (IGMT).

> Award includes the following

- A trophy made of banded Haematite Jasper,
- A portrait of the late Prime Minister Indira Gandhi in Jaipur miniature paintings and
- A cash award of Rs. 1 crore.

Awarded for

Outstanding contributions in peace. development and a new international economic order.

Immediate past recipients

- 2013: Angela Merkel (Chancellor of Germany)
- 2014: ISRO
- 2015: United Nations High Commissioner for Refugees

DARWAZA BAND (TOILET USAGE CAMPAIGN)

Context

➤ From May 30th, 2017, the Ministry of Drinking Water and Sanitation will launch a new campaign called Darwaza Band to encourage use of toilets.

About Darwaza Band

- ➤ The campaign has been supported by the World Bank and focuses on behaviour change through a countrywide comprehensive IEC (Information-Education-Communication) program.
- ➤ Encouraging men: The campaign will feature actor Amitabh Bachchan encouraging behavior change in men who have toilets but are not using them.
- ► Encouraging women: The campaign also features actor, Ms Anushka Sharma, who will be seen encouraging women for constructing toilets in villages.

BELT & ROAD FORUM (BRF)

Context

- ▶ Belt and Road Forum (a two day event for promoting the Belt and Road Initiative), began in Beijing on May 14, 2017.
- ➤ The event is being attended by 29 foreign heads of state and government and representatives from more than 130 countries and 70 international organizations.

What were the key highlights of day 1 of the event?



Panchsheel	➤ Chinese president Xi Jinping stated that China will enhance friendship with other countries on the Belt & Road Initiative on the basis on five principles of peaceful co-existence.
Indus River Cascade (IRC)	 Pakistan & China signed on MOU on IRC. IRC begins at Skardu in Gilgit-Baltistan and runs through Khyber Pakhtunwa. IRC has potential to generate 40,000 MW of power. In this background, an MOU has been signed which entails an investment of 50 Billion dollars in power projects along the Indus river cascade (IRC).
India skipped it	 India skipped it as China Pakistan Economic Corridor (CPEC), a part of Belt & Road Initiative, passes through Pakistan occupied Kashmir. According to critics, India should have attended it as countries like Japan & Vietnam (who have serious maritime disputes with china) have also send high level delegations to it BRF.

What is Panchsheel?

The Five Principles of Peaceful Coexistence (known in India as the Panchsheel) includes the following five principles

- ► Mutual respect for each other's territorial integrity and sovereignty.
- Mutual non-aggression.
- ► Mutual non-interference in each other's internal affairs.
- ► Equality and cooperation for mutual benefit.
- Peaceful co-existence.

WHO PLANS A 'NO-REGRETS APPROACH' FOR CATERING EBOLA

Context:

The number of suspected cases of Ebola has risen to 29 from nine in less than a week in an isolated part of Democratic Republic of Congo, where three people have died from the disease since April 22. Thus, to meet the emergency situation, WHO has introduced 'no-regrets approach' for catering Ebola.

About Ebola

- ➤ Ebola virus disease (EVD), formerly known as Ebola haemorrhagic fever, is a severe, often fatal illness in humans.
- ➤ The virus is transmitted to people from wild animals and spreads in the human population through human-to-human transmission.
- ➤ The average EVD case fatality rate is around 50%. Case fatality rates have varied from 25% to 90% in past outbreaks.
- ➤ The first EVD outbreaks occurred in remote villages in Central Africa, near tropical rainforests. The 2014-2016 outbreak in West Africa involved major urban areas as well as rural ones.
- ➤ The Ebola virus causes fever, bleeding, vomiting and diarrhoea, and it spreads easily by contact with bodily fluids. The death rate is high, often surpassing 50%, particularly with the Zaire strain.

Why failed in Congo region?

➤ One of the first challenges for the Ebola response multidisciplinary team arriving in the remote north of the Democratic Republic of the Congo was to find a base from which response activities could be coordinated. With impassable roads, extremely limited telecommunications coverage and an acute lack of infrastructure and basic commodities in the affected Bas-Uele province, creating an equipped and secure base camp was essential to ensure an effective and coordinated response.

Steps needed

- ➤ Community engagement is key to successfully controlling outbreaks. Good outbreak control relies on applying a package of interventions, namely case management, infection prevention and control practices, surveillance and contact tracing, a good laboratory service, safe burials and social mobilisation.
- ► Early supportive care with rehydration, symptomatic treatment improves survival. There is as yet no licensed treatment proven to neutralize the virus but a range of blood, immunological and drug therapies are under development.

HAPPINESS INDEX

Context

Madhya Pradesh government has decided to devise Happiness Index.



Detail

- ➤ In July 2016, MP government set up the Anand Mantralaya or the Ministry of Happiness, with Chief Minister Shivraj Singh Chouhan as its first "happiness minister."
- ➤ On May 16, 2017 MP government has signed a Memorandum of Understanding (MoU) with IIT-Kharagpur (the only institute to have a Happiness Centre) to devise a Happiness Index for the State.
- ➤ IIT-Kharagpur will devise a questionnaire that will bring out the happiness levels of the people with tangible and intangible things. It will find answer to questions like what constitutes happiness and how happy are people really?

In what background has the government taken this step?

- ▶ In the World Happiness Report for 2017, India stood 122nd spot (in 2016 survey, it stood at the 118th spot).
- Countries like Bhutan have worked in this area. A life satisfaction scale has been devised by Dr. Ed Denier.

World happiness report 2017

- ➤ What is it?
 - The World Happiness Report is a measure of happiness published by the United Nations "Sustainable Development Solutions Network (SDSN)".
 - The Sustainable Development Solutions Network (SDSN) was commissioned by UN Secretary-General Ban Ki-moon in 2012 to mobilize scientific and technical expertise from academia, civil society, and the private sector to support practical problem solving for sustainable development at local, national, and global scales.
 - The first World Happiness Report was released in 2012.
 - Criteria: Happiness is based on various variables which include: real GDP per capita, social support, healthy life expectancy, freedom to make life choices, generosity, and perceptions of corruption.
 - SAARC nations: Among the eight SAARC nations, Pakistan was at 80th position, Nepal stood at 99, Bhutan at 97, Bangladesh at 110, Sri Lanka was at 120 and India was at 122. However, Maldives did not figure in the World Happiness Report.

■ China: China, has made major economic strides in recent years. But its people are not happier than 25 years ago.

HARSH MALHOTRA COMMITTEE ON **SCOUTS AND GUIDES**

Context:

▶ In May 2017, a Harsh Malhotra committee on scouts and guides submitted it's report to Ministry for State (Independent Charge) for Youth Affairs & Sports.

Background to the committee:

- ▶ In October, 2016 ministry of youth and sports affairs constituted High Level Committee on Scouts and Guides under the chairmanship of Shri Harsh Malhotra.
- ➤ The committee was constituted in the context of the complaints received against the Bharat Scouts and Guides and Hindustan Scouts and Guides.
- ▶ Its terms of reference were to conduct physical inspection of the infrastructure and assets of the two recognized Scouts and Guides Organizations.

Key findings of the committee:

- ▶ The Committee has found a number of irregularities in the management and financial management of Bharat Scout & Guides and Hindustan Scouts & Guides.
- ➤ Complaints have also been reported, regarding leakage of question papers related to Rashtrapati Puruskar (2016-2017) in Bharat Scouts and Guides.

Kev recommendations made by the committee:

- Organizational revamp: It is mandatory to revamp the Bharat Scout & Guides and Hindustan Scouts & Guides. Streamline the organisational set up of these two organizations. There should be government nominees on the Boards of both the organizations.
- ➤ Monitoring mechanism: Constitute Permanent monitoring Committee to periodically assess the activities of both the organisations and submit report to the Ministry.
- Make Scouts movement an integral part of Youth movement.

Scouting and guiding

➤ The Scouts & Guides is a voluntary, non-political, educational movement for young people, open



- to all without distinction of origin, race or creed, in accordance with the purpose, principles and method conceived by the Founder Lord Baden Powell in 1907.
- ➤ Purpose: The purpose of the Movement is to contribute to the development of young people in achieving their full physical, intellectual, social and spiritual as individuals, as responsible citizens and as members of the local, national and international communities.

MAKE IN INDIA

Context:

- ► In May 2017, Union Cabinet approved a policy for providing preference to 'Make in India' in government procurements.
- ▶ Details of this policy:
 - Local suppliers: Local suppliers are those whose goods or services meet prescribed minimum thresholds (ordinarily 50%) for local content. Local content is essentially domestic value addition.
 - Self-certification system: The policy lays down a procedure for verification of local content relying primarily on self-certification. There will be penal consequences for false declarations. In some cases, verification by statutory / cost auditors etc. will be required.
 - Implementing agency: A Standing Committee in Department of Industrial Policy Promotion will oversee implementation of this policy.
- ➤ Significance of this policy: The new policy will:
 - Give a substantial boost to domestic manufacturing and service provision, thereby creating employment;
 - Stimulate the flow of capital and technology into domestic manufacturing and services; and
 - Provide a further thrust towards manufacture of parts, components, subcomponents etc. of these items, in line with the vision of 'Make in India'.

NEW INITIATIVES BY MINISTRY OF **COMMUNICATIONS**

Context:

In May 2017, the Ministry of Communications launched the following:

- ▶ BSNL's satellite phone service,
- Pandit Deen Dayal Upadhyaya Sanchar Kaushal Vikas Pratisthan Scheme and
- ► Pandit Deen Dayal Upadhyaya Telecom Skill Excellence Award Scheme

BSNL'S Satellite Phone Service

- ► BSNL has started a satellite phone service which will be offered in a phased manner.
- ➤ The service will cover areas where no networks are present.

Satellite phones

- ▶ What is a satellite phone? It is a type of mobile phone that connects to orbiting satellites instead of terrestrial cell sites.
- ➤ What is the benefit of satellite phones? Satellite phones are used in remote areas and situations where terrestrial cellular service is unavailable.
- ➤ Coverage? Depending on the architecture of a particular system, coverage may include the entire Earth or only specific regions.

▶ Phases:

- Phase 1: Agencies handling disasters, state police, railways, Border Security Force and other government agencies will be given the phones in the first phase.
- Phase 2: Later on this service will be opened for others citizen in phased manner. Later people while travelling in flight and on ships will be able to use it.
- ▶ What is the present status of satellite phones in India?
 - Satellite phones in India are presently provided by Tata Communications, which inherited the licence from Videsh Sanchar Limited (VSNL) (now Tata Communications Ltd).
 - The services of TCL will be phased out by 30 June. 2017.

Pandit Deen Dayal Upadhyaya Sanchar Kaushal Vikas Pratisthan Scheme

➤ Objective: It is a skill development scheme which has been launched to train rural youth to maintain mobile towers, repair optical fibres and fix other communication technologies across India.

Coverage:

■ In the first phase, 10,000 people will be trained at 10 rural locations in UP, Bihar, Odisha, Punjab and Haryana on a pilot basis.



www.iasscore.in



■ Later on, this scheme will be implemented across India.

Pandit Deen Dayal Upadhyaya Telecom Skill **Excellence Award Scheme**

➤ Objective: To reward people who perform at par excellence in telecom sector.

INTERNATIONAL TOURIST ARRIVALS

Context:

➤ Rank of India improves in international tourist

Detail

- UNWTO ranks countries in terms of International Tourist Arrivals (ITAs).
- ▶ ITAs comprises two components namely:
 - Foreign Tourist Arrivals (FTAs), and
 - Arrivals of Non-Resident Nationals.

- ▶ India has so far only compiled the figures of
- ▶ However, now India has started compiling the data arrivals of Non-Resident Indians (NRIs),
- This has improved India's rank in ITA's.
- ➤ According to UNWTO Barometer for March 2017, Rank of India in International Tourist Arrivals in both 2014 and 2015 is 24 as against the previous rank of 41 and 40 in the year 2014 and 2015

United Nations World Tourism Organization (UNWTO)

- ▶ It is a UN agency responsible for the promotion of responsible, sustainable and universally accessible tourism.
- ➤ Established in 1975.
- HQ: Madrid, Spain.

