

# GS SCORE

# ANALYST

*Current Affairs Fortnightly*

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June - II (16 - 30, 2017)

Contemporary Issues

**Topical Analysis**

# INDIA-USA RELATIONS



## **Personality**

⇒ Role of P.C. Mahalanobis in Nation Building

## **Political Issue**

⇒ Procedure for Removal of Judges Critical Analysis

⇒ Executive Crisis in Puducherry

⇒ Gorkhaland Crisis

## **Environmental Issue**

⇒ Dam and Fishing: Positive and Negative Impacts

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⇒ Impact of New Cattle Rules on Farmers: An Analysis

⇒ Implementation Issues in GST

⇒ Greenfield and Brownfield Investments

⇒ Daily Dynamic Price Revision: Critical Analysis

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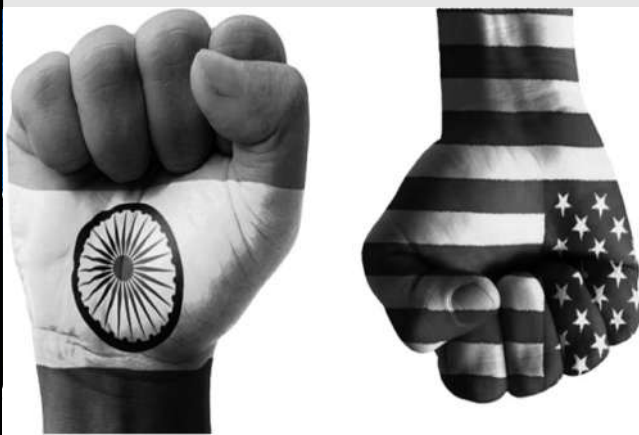


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### Dynamic Fuel Pricing

**IndianOil, BPCL and HPCL are considering ways to roll out the plan to review petrol and diesel prices daily**

**Executives of these companies met Oil Minister Dharmendra Pradhan and the ministry officials on Wednesday to discuss the idea of daily fuel pricing**

- ▶ The automation at most filling stations, which allows companies to centrally change prices, has made it much easier for companies to convey price changes to their 53,000 filling station across the country
- ▶ Daily changes mean prices wouldn't rise or drop sharply
- ▶ Prices would change just by a few paise every day, bringing no shock to customers
- ▶ This means companies can easily take price hikes without worrying about political backlash

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- Daily Dynamic Price Revision: Critical Analysis
- BIMSTEC at 20: Prospects and Challenges



### NEUTRINO FACTORIES

Neutrinos are everywhere, generated by a variety of processes

- Fusion of hydrogen nuclei to form helium in the Sun.
- Supernovae and collisions between cosmic rays and air particles in Earth's atmosphere.
- Particle accelerators smashing protons into a target and fission from the radioactive decay of elements inside nuclear reactors.

### WHERE THEY WILL BE DETECTED

- Deep Underground Neutrino Experiment (DUNE), United States**  
Status: Planned  
Cost: US\$1 billion  
Will make highest-energy neutrinos of any experiment.
- Hyper-Kamiokande, Japan**  
Status: Planned  
Cost: About \$800 million  
Will be the world's largest neutrino detector — it is 25 times bigger than its predecessor, Super-Kamiokande.
- Jiangmen Underground Neutrino Observatory (JUNO), China**  
Status: Construction begun  
Cost: \$330 million  
Sits under 700 metres of rock.
- India-based Neutrino Observatory (INO), India**  
Status: Funding approved  
Cost: \$233 million  
Will be largest experimental basic-science facility in India.

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- Issue of Organ Trafficking in India
- Greenfield and Brownfield Investments
- Is India Prepared for Handling Zika Virus?
- Road Safety Risks and Preventive Measures

- Gender Budgeting: Critical Analysis
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- IISER Pune Developed Novel Drug Delivery System to Kill Cancer Cells
- First Indigenously Built Floating Dock Launched
- ICE Memory Project
- Antarctica Policy & Law Proposed by Ministry of Earth Science
- Petya Ransomware

## Economy News

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## Miscellaneous News

- Premji to Get Carnegie Medal for Philanthropy
- Centre Launches Livability Index to Rank 116 Cities
- Indian Naval Material Management Service
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- Doklam Plateau
- India and Afghanistan Establish Direct Air Freight Corridor

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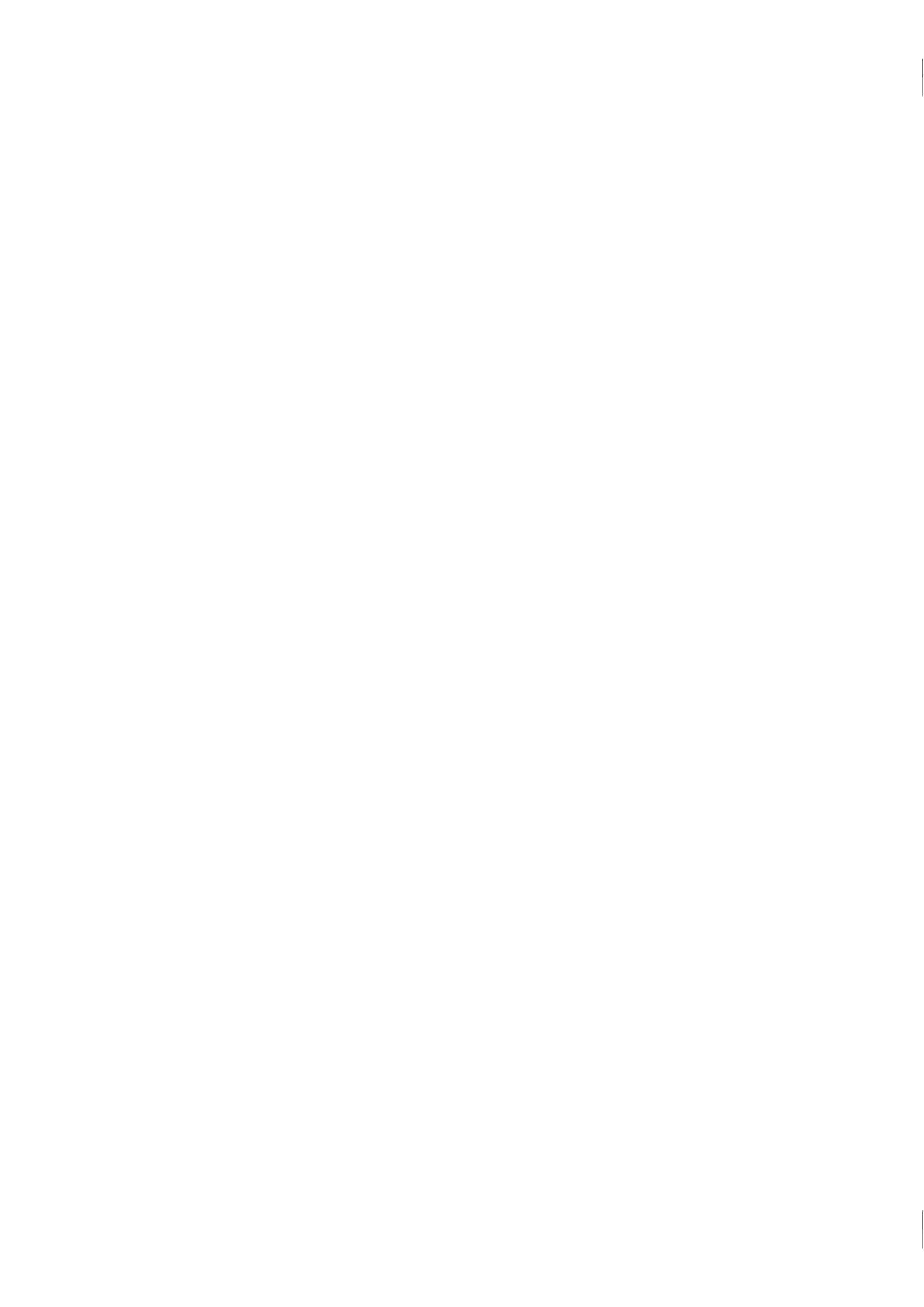
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## COVER STORY

# India-USA Relations

Context

*The United States and India are enjoying increasingly close relations. This represents a transformation of the two countries' past relationship, which was characterized by suspicion and distrust. This change, which began with the end of the Cold War, has resulted from a convergence of structural, domestic, and individual leadership factors.*

*However, Indo-U.S. relations have not always been so cozy. New Delhi and Washington had been "testy" during the Cold War, turned warmer under Presidents Bill Clinton and George W Bush but were "producing concrete gains" under Obama.*

*Below, we analyze the nature of Indo-U.S. relations from the time of Indian independence through the end of the Cold War and finally in the regime of Bush Obama and Trump Administration. The present article also highlights the current issues under discussion between the two nations and the prospects for the future.*

## Introduction

Relations between India and the United States have been on an up-and-down trajectory since Independence in 1947. While the seeds of distrust sown during the Cold War era and India's testing of nuclear weapons have seen bilateral ties plunge to new lows, the recent Indo-US civil nuclear deal saw relations surge to new heights. With the incoming of President Donald Trump, there have been latest developments in the India US relations.

## India and the US – from 1947 to present

### A. Post Independence

- ▶ The two countries mostly shared cold ties until the end of the Cold War. The US was seen tilting more towards Pakistan and India on the other hand, proclaimed to remain non-aligned. With the US and the USSR being two superpowers, India led the third block of NAM (Non-Aligned Movement) countries. However, the thorny relationship was not because of India joining the NAM, but due to its closeness to the Soviet Union despite being non-aligned.
- ▶ India had rejected American mediation in resolving the Kashmir dispute with Pakistan that started immediately after Independence.
- ▶ Further, India had refused to follow American view of not to recognize the 'Communist China' despite the fact that the US assisted India with loans and free food in the immediate period after Independence, to cope with an economy exploited for decades by the British Raj.

- ▶ D. Eisenhower became the first US President to visit India, in 1959, to take bilateral ties forward. US assured India that it would stand by the South Asian Nation against Chinese Communist aggression. Part of the US strategy to protect India against China was to counter the rise of the China as a third superpower.
- ▶ In 1960s, the US saw India as a strategic partner during the regime of John F. Kennedy.
- ▶ In 1962 India China war, US stood by India. The US dubbed China's action as "blatant Chinese Communist aggression against India" and helped the country with arms and ammunition, and civilian supplies. However, the assassination of President Kennedy in 1963 changed the trajectory of US outlook towards India.
- ▶ In 1970s, under President Richard Nixon, the ties reversed and hit a new low when the US backed Pakistan during the 1971 war. The Nixon administration had been helping India's foe by aiding it militarily and economically, and during the 1971 war indirectly threatened India by deploying aircraft carrier USS Enterprise in the Bay of Bengal.
- ▶ Later, India's decision to test a nuclear weapon at Pokhran in 1974 further worsened relations.
- ▶ Relations improved further when Indira Gandhi came back to power in 1980. The Soviet Union had invaded and occupied Afghanistan, and this tilted India towards the United States. Under PM Indira Gandhi and President Ronald Reagan, India and the US increased cooperation in the field of defence technology and military equipment.
- ▶ India placed orders for F-5 aircraft, super computers etc, and the US, in 1984, agreed to share technology to help India build naval frigates and an indigenous light combat aircraft.

## B. Post Cold War

- ▶ Under the Prime ministership of PV Narasimha Rao, India unleashed sweeping economic reforms. The measures transformed the Indian economy while opening it to globalization benefits. The reforms also helped strengthen the economic cooperation with the US and the rest of the world. Till 1998, both the countries made mutual efforts to improve bilateral relationship.
- ▶ **Nuclear Test:** However, in May, 1998, the decision of Prime Minister Atal Bihari Vajpayee's government to conduct nuclear tests at Pokhran saw the ties with the US return to a new low. Pakistan responded with its own nuke tests in the same month. And, amid fears of a regional nuclear arms race, the US and other western countries, including Japan, slapped wide-ranging sanctions against India.
- ▶ The sanctions, mostly economic, however failed to hurt India in the wake of a surging domestic economy.
- ▶ In the 1999 Kargil war, the US supported India's response and pressured Pakistan to withdraw its troops from the Indian territory across the Line of Control.
- ▶ **Clinton Visit 2000:** In less than two years of the Nuclear-Tests, the sanctions were lifted and President Clinton made a visit to India in March, 2000. The visit saw many agreements being signed, including on the establishment of an Indo-US Science & Technology Forum.
- ▶ **2001 Attacks:** Post September 11, 2001 attacks in the US and December 13 terror strike on the Indian Parliament in the same year, the two countries decided to collaborate closely in the global war against terror. Though, America's greater reliance on Pakistan to counter terrorist forces in neighboring Afghanistan continued to remain a sticking point.



- ▶ **2005:** On other fronts, India and the US inked an Open Skies Agreement in April 2005 to boost trade, tourism and business. India also placed an order of 68 US Boeing aircraft for Air India at a cost of US \$8 billion.

### C. Bush Administration - Landmark Moment 2005 Onwards

- ▶ In 2005, the two countries inked the New Framework for the US-India Defence Relationship identifying priorities for cooperation in maritime security, humanitarian assistance and counter-terrorism. The agreement also gave a fillip to joint military exercises between the armed forces of the two countries.
- ▶ The landmark moment came on July 18, 2005 when India and the US signed the Civil Nuclear Cooperation Initiative - a deal which lifted the US moratorium on nuclear trade with India and ended the nuclear apartheid against the rising South Asian giant. As part of the landmark deal, India agreed to separate its civil and military nuclear facilities, while allowing IAEA inspection of the power-generation facilities.
- ▶ India is the only country in the world which is not part of the NPT-CTBT regime but is allowed to participate in nuclear trade. It is another matter though that India's Nuclear Liability Bill has held up progress on bilateral cooperation in the field.
- ▶ **2006 Bush Visit:** Meanwhile, President Bush visited India to hold further talks on the civil nuclear deal and also give a push to defence and economic ties. The improved relationship between the two countries was highlighted once again when US agencies cooperated very closely with their Indian counterparts in the aftermath of 26/11 Mumbai terror attacks.
- ▶ **Defence Cooperation:** Defence relationship has emerged as a major pillar of India-U.S. strategic partnership with the signing of 'New Framework for India-U.S. Defense Relations' in 2005 and the resulting intensification in defence trade, joint exercises, personnel exchanges, collaboration and cooperation in maritime security and counter-piracy, and exchanges between each of the three services.

### D. Obama Administration – 2009 Onwards

- ▶ The ties witnessed a dip after Barack Obama came to power in the United States in November, 2009. Even though Obama hosted PM Manmohan Singh for a state dinner as his first international guest, the ties have failed to get the much-needed boost under his regime unlike President Bush's tenure.
- ▶ The two countries, however, have launched the India-US Economic and Financial Partnership and the India-US Strategic Dialogue under Obama's watch with the President describing the relationship as "a defining partnership in the twenty-first century".
- ▶ Former Secretary of State Hillary Clinton appreciated India as "an indispensable partner".
- ▶ Under the Obama Administration, the two democracies found "common cause" in:
  - Countering China's "aggression" in the South China Sea,
  - Climate change,
  - Fighting Terror,
  - Investing in each other's economic growth, and
  - Civil Nuclear Cooperation.

- ▶ **Few other areas were:**
  - **UNSC Seat:** A year later, when President Obama visited India, he supported India's bid for a seat on the UN Security Council and signed trade deals worth US \$15 billion.
  - **H1B Visa:** Obama administration's move to curb US H1B visas and outsourcing of jobs to the developing world, particularly India, did not go down well with the IT industry and the government here.
  - **Civil Nuclear Cooperation:** The bilateral civil nuclear cooperation agreement was finalized in July 2007 and signed in October 2008. During Prime Minister Modi's visit to the U.S. in September 2014, the two sides set up a Contact Group for advancing the full and timely implementation of the India-U.S. Civil Nuclear Cooperation Agreement, and to resolve pending issues. Culminating a decade of partnership on civil nuclear issues, the two sides have started the preparatory work on site in India for six AP 1000 reactors to be built by Westinghouse. Once completed, the project would be among the largest of its kind. The Nuclear Power Corporation of India Ltd, and Westinghouse are in talks toward finalizing the contractual arrangements, and addressing related issues.
  - **Climate Deal:** PM Modi and Obama worked towards ensuring implementation of the Paris climate deal and the growing cooperation on defence.

#### India-US: Factors responsible for change in bilateral relations:

- ▶ India's foreign policy has changed from Socialist Model to Capitalist Model. This change is gradual since 1991. It has become visible now. Reasons one is disintegration of USSR and liberalization of the economy in 1991 and another is that, US realized huge economic potential of India.
- ▶ Security Concern: 9/11 terrorist attack in US. Therefore they realized that collaboration is needed. Hence,
  - US congress did amendment for enhancing security and defence cooperation in India,
  - Gave status of "Major Defense Partner", for a Non-NATO ally, and
  - India is only country which is outside the Formal Treaty ally of the USA.
- ▶ Indian Diaspora
- ▶ US's interest in Asia-Pacific region
  - India is viewed as a Balance of Power in the region. Hence USA can counter China.
  - USA is Greatest naval power in the world. Therefore help of USA is needed for India to fulfill its dream to become Maritime Power in Indo-Pacific region.
- ▶ Counter China Policy: Good relation with USA may force China to come to negotiating table with respect to border dispute.
- ▶ USA is a Knowledge Power in the world, which is important for India to become Global Power.

#### E. Trump Administration

- ▶ PM Narendra Modi visited the United States on 25-26 June at the invitation of the new President of the United States Donald trump.
- ▶ Regarding India, several reasons contributed to this disquiet, the most recent being Trump's outburst against India on 1 June while announcing the US withdrawal from the Paris Climate Change Accord. He accused India of demanding

billions of dollars to comply with its commitments under the Paris Pact. This was resolutely refuted by External Affairs Minister Sushma Swaraj.

- ▶ He single-mindedly overturned most of the initiatives of his predecessor. In addition to the Paris Climate Change Pact, he withdrew from the Trans-Pacific Partnership Agreement and is not leaving any stone unturned to reverse the policies initiated by Obama on Iran and Cuba.
- ▶ On the domestic front as well, similar efforts are visible. It was feared that Trump might decide to put India-US relations in neutral gear, if not exactly in the reverse. This would have been a huge setback for Modi who has invested enormous political capital and effort over the last three years.
- ▶ The biggest takeaway from PM Modi's visit to US in substantive terms was:
  - The stern language against Pakistan and the designation of Syed Salahuddin, the 'supreme commander' of the Kashmiri militant outfit Hizb-ul-Mujahideen, as a Specially Designated Global Terrorist because of his pronouncements about wreaking havoc in Kashmir and making it a graveyard for Indian forces.
  - Other actions identified by the Joint Statement include increased intelligence sharing, operational-level counter-terrorism cooperation, exchange of information on known and suspected terrorists for travel screening, strengthening information exchange on plans, movements and linkages of terrorist groups and their leaders, terror financing, etc.
- ▶ On the subjects of regional connectivity and South China Sea (although the latter is not mentioned by name), India's position has been fully reflected. The Joint Statement declares the necessity of transparent development of infrastructure, use of responsible debt financing practices, respect for sovereignty and territorial integrity, rule of law, and environmental protection. This reaffirms that India and USA are on the same page with respect to dealing with the rapidly growing influence and presence of China in the Indian Ocean and Indo-Pacific region.
- ▶ Defence has emerged as a major area of cooperation with USA emerging as the second largest supplier, after Russia, of sophisticated equipment to India. The sale of 22 Guardian surveillance drones is on the cards and is likely to be announced shortly. Also, reports have emerged about a possible tie-up between Lockheed Martin and the Tata group to locally manufacture F-16 aircraft in India. This could provide a significant impetus to the Make in India initiative.
- ▶ Trade was a significant part of the discussions. The two sides agreed to a comprehensive review of bilateral relations and to further expand and balance ties on the principle of free and fair trade. Trump, in his statement, referred to a fair and reciprocal trading partnership between the two countries. To respond to Trump's concerns about creating jobs in USA, Modi, in his op-ed in the Wall Street Journal (WSJ), mentioned that Indian investments totalling USD 15 billion in USA is creating jobs in 35 US States including in the rust belt from where Trump received huge support in his election.
- ▶ An additional aspect of the visit was Modi's reach out to Trump's family. He invited Trump's daughter Ivanka to lead a delegation of US entrepreneurs to a Global Meet in India later this year. Trump appeared immensely pleased.
- ▶ The Indian foreign policy establishment can justifiably feel upbeat with the results of the visit.

## Areas of Cooperation

### ► Defence

- Defence Agreements include:
  - CISMOA (Communications and Information Security Memorandum Agreement): CISMOA, meanwhile, would allow the United States to supply India with its proprietary encrypted communications equipment and systems, allowing secure peacetime and wartime communication between high-level military leaders on both sides.
  - BECA (Basic Exchange and Cooperation Agreement) for Geo-spatial Cooperation.
  - LEMOA (Logistics Exchange Memorandum of Agreement) provides access to each other's military facilities for fuelling and logistic support on a reimbursable basis. The core of both agreements is a regularisation of the ability of naval ships and aircraft of both countries to dock in each other's bases for taking on supplies like fuel. Indian and US naval ships and aircraft have often used each other's naval and air bases before. Base usage and taking on supplies will now be much easier for naval ships and aircraft under both flags.
- Despite significant progress, the US faces two challenges in developing deeper defense relations with India.
  - **First**, India continues to be suspicious of American motivations to draw India into a broader, U.S. dominated coalition. This suspicion is rooted in the ideology of Non-Alignment as well as in its colonial experience, and drives India's refusal to sign what the United States calls "foundational agreements" to further strengthen military cooperation.
  - **Second**, development and coproduction of military equipment with the United States certainly appeals to India, but hurdles remain. India has a history of signing ambitious defense cooperation agreements only to see them fall apart. Corruption scandals, bureaucratic inertia and missed deadlines are common spoilers. The recent deal to purchase the French Rafale multirole combat fighter is a case in point.

### ► Terrorism

- The maiden summit meeting between Prime Minister Narendra Modi and US President Donald Trump yielded an agreement on expanding bilateral counter-terrorism and defence cooperation, besides heralding new energy ties even as the two sides sought to work out a fresh trade deal.
- In their joint statement, the two leaders called on Pakistan to ensure that its territory is not used to launch terrorist attacks on other countries. This marks progress from the earlier statements issued after the PM's meetings with then US President Barack Obama. In earlier joint statements, India and the US had asked Pakistan to act against the perpetrators of the terrorist attacks such as the one in Mumbai in 2008.

### ► US Support on Global Platform

- India has been making diplomatic efforts to ensure expansion of the permanent as well as non-permanent membership of the UNSC.
- China objects to India's membership bid in the NSG a 48-member elite group which controls the nuclear trade and says there is no change in its

stance on the admission of non-NPT states into the grouping. India is not a signatory to the NPT.

- But, US President Donald Trump supported India's bid for a permanent seat in a reformed UN Security Council and in other multilateral institutions. As global non-proliferation partners, the United States expressed strong support for India's early membership in the Nuclear Suppliers Group, the Wassenaar Arrangement, and the Australia Group.

## Area of Tension

### ► Civil Nuclear Cooperation

- The bilateral civil nuclear cooperation agreement was finalized in July 2007 and signed in October 2008. During Prime Minister Modi's visit to the U.S. in September 2014, the two sides set up a Contact Group for advancing the full and timely implementation of the India-U.S. Civil Nuclear Cooperation Agreement, and to resolve pending issues.
- At present the deal is facing various hurdles has not resulted in a single commercial nuclear transaction between India and the US. The hurdles are:
  - Debate on nuclear liability under the Civil Liability for Nuclear Damage Act (CLNDA) of 2010 – what should be the liability and under whom. India wants to revise it to meet the international conventions.
  - Delhi's concerns about administrative arrangements for monitoring the sensitive parts of India's civilian nuclear cycle.
- The Indian Nuclear Insurance Pool, was launched by the state-owned General Insurance Corporation-Reinsurer (GIC-Re) and other Indian insurance companies in June 2015 to offer an insurance product for NPCIL for covering **the operator's liability** under the provisions of the Civil Liability for Nuclear Damage (CLND) Act 2010.
- India decided to have a nuclear insurance pool to take care of the liability of operators and suppliers. This insurance pool of Rs 1,500 crore was launched in June 2015, with some Indian insurance companies and a British insurance partner. Beyond Rs 1,500 crore, the liability will be borne by the Indian government up to Rs 2,610 crore, and beyond that, India will be able to access international funds under the CSC.

### ► Climate Change

- Trump has called the pact a "bad deal" for the United States and had made withdrawing from it as a key component of his "America First" campaign platform. Trump accused that Paris climate agreement gives undue advantage to India and China at the cost of the United States' interests. According to Mr. Trump, the Paris agreement would lead to a redistribution of American wealth to other countries and transfer of American jobs abroad. So, reason for pulling out is that Paris deal is unfair to USA.
- But India and China have been unfairly accused, Paris deal is based on well-accepted principle of Common but Differentiated Responsibility (CBDR). The principle was formalized in United Nations Framework of Convention on Climate Change (UNFCCC) of Earth Summit in Rio de Janeiro, 1992.
- So far, despite their differences, the two countries found common ground on three international agreements on climate change (in Paris, under the Montreal Protocol to phase out hydrofluorocarbons, and measures to curb

emissions under the International Civil Aviation Organisation. Bilaterally, they launched numerous programmes on energy access, and established joint funds to push energy R&D.

- But now it is unclear how the U.S. withdrawal would immediately impact bilateral energy programmes, joint investments, and investor confidence.

► **H1-B Issue**

- In March this year, India dragged the US to WTO's dispute settlement body against the latter's measures imposing increased visa fees on certain applicants for L-1 and H-1B visa categories. India has stated that the move would impact Indian IT professionals.
- The dispute concerns US immigration laws which increased visa fees for certain temporary foreign workers and allotted a specific number of temporary worker visas to Chilean and Singaporean nationals.
- India has alleged that the US is violating its obligations under General Agreement on Trade in Services (GATS), a binding agreement for all WTO member countries, as well as the GATS Annex on Movement of Natural Persons Supplying Services, to not discriminate against or between non-US service providers. This appears to be the first time a WTO member has formally filed a dispute challenging the immigration laws of another member as a violation of the GATS.

## Prospects for the Future

Although bilateral relations appear to be extremely promising at the moment, a number of difficulties could slow or derail continued progress.

One problem is that the proposed Indo-U.S. nuclear pact could fail. Indian officials insist that the agreement must allow them to test nuclear weapons and to reprocess spent nuclear fuel. The Americans have thus far refused to agree to the Indians' terms. If these differences prevent the nuclear deal from being realized, much of the goodwill that it has generated could evaporate.

Some American policy makers believe that in return for the proposed nuclear agreement, India is obliged to support U.S. global nonproliferation efforts.

The real test of the commitments assumed by the two countries will lie in action taken by them in the coming months. Keeping in view Trump's strong position on global terrorism, there are better prospects today than at any time in the past that suitable action will be taken by the two countries to quell the issues between both nations.

## INTERNATIONAL ISSUE

# China's Dams & Regional Security Implications

Context

*India has been concerned about the large number of dams being constructed by China. A memorandum of understanding (MoU) signed by Pakistan and Beijing last month to build the Bhasha and Bunji Dams on the River Indus in Gilgit-Baltistan - has triggered fresh alarm bells for the entire South Asian region.*

*These dams threaten not only China's economic, political and social security but also regional security as they are built on rivers such as the Yarlung Tsangpo, Salween and Mekong that flow down to countries in South and Southeast Asia.*

## Introduction

One of the characteristics of China's 'peaceful rise' has been its endeavour to control environment, demonstrated mainly by its dam-building policy. The country is home to half of the world's roughly 50,000 large dams and many more medium and small-sized ones aimed at flood control, energy, production and irrigation.

Recently Pakistan and China has signed MoU to build the Bhasha and Bunji Dams on the River Indus in Gilgit-Baltistan – which India claims to be its own territory.

China's dam building overdrive is a concern for India because there are no bilateral or multilateral treaties on the water. India believes China's projects in the Tibetan Plateau threaten to reduce river flows into India. Dams, Canals, irrigation systems can turn water into a political weapon to be wielded in war, or during peace to signal annoyance with a co-riparian state.

Besides, construction of reservoirs and dams has led to three major consequences in China – economic impoverishment, social instability and environmental degradation.

### Facts about proposed dam

- ▶ The Bhasha Dam, being built with a height of 272 metres, will produce 4,500 megawatts of electricity. It is being built as a gravity dam and will be the highest roller-compacted concrete dams in the world.
- ▶ The Bunji Dam is also being built on the Indus River. It will be 190 metres high and will have an installed capacity of 7,100 megawatts.
- ▶ These two mammoth dams are being constructed at a total cost of \$27 billion and can be seen as part of the One Belt One Road (OBOR) initiative of the Chinese government.
- ▶ The Three Gorges Corporation, which built the largest dam in the world (Three Gorges), will help finance this project with a capital of \$50 billion.

- ▶ China is also planning to build 55 reservoirs on the rivers flowing from the Tibetan plateau. Already, they have completed the Zangmu Dam, built on the upper reaches of the Brahmaputra in 2010. Three more dams at Dagu, Jiacha and Jeixu are presently under construction, while in 2015, work started on the Zam hydropower station – which will be the largest dam on the Brahmaputra river, which the Chinese refer to as the Yarlung Tsangpo.

### China's Dam building policy

- ▶ China has been actively diverting river waters in its territory for different purposes. When China annexed Tibet, the latter's dependence on the Tibetan waters was negligible and almost all the waters flowed to the lower riparian countries. Today, with signs of environmental change in northern China, the government has decided to exercise its rights over the watercourses in the Tibetan Plateau, primarily to divert waters from the water-rich South to water-deficient North.
- ▶ However, the World Commission on Dams has found several loopholes in the whole exercise of building dams and their functioning, whether in terms of power generation or irrigation or flood control, most importantly its disastrous socio-economic implications. Many of these dams are built in seismically volatile areas and are allegedly products of "tofu" construction (poorly constructed, involving less time and money). Therefore, Dams have been held responsible for several disasters including pollution, droughts, flooding, earthquakes, soil erosion and landslides in several parts of the country, killing thousands of people, especially in Southwest China. This has in turn resulted in various forms of social and economic upheaval in China, not only due to human displacement but also the negative effects of damming on the environment, including flora and fauna.
- ▶ There have been widespread protests against dams; but they have largely been overlooked or quelled.
- ▶ These dams threaten not only China's economic, political and social security but also regional security as they are built on rivers such as the Yarlung Tsangpo, Salween and Mekong that flow down to countries in South and Southeast Asia.

### Issues related to Dam building

- ▶ Construction of reservoirs and dams has led to three major consequences in China, particularly regarding resettlement – economic impoverishment, social instability and environmental degradation.
- ▶ **Social instability** is caused mainly due to the displaced population's dissatisfaction with the resettlement schemes or the authorities' unreceptive attitude towards them. Many a time, this results in conflicts between different groups as well.
- ▶ **Environmental destruction** is, among others, a result of construction of dams, small or big. Those relocated in this process lose their traditional connections with the land that would eventually be flooded by the dam. People begin to cultivate on steep hill slopes and in other upland areas, leading to destruction of forests and grasslands, causing soil erosion and increased water runoff.
- ▶ Various studies show that China's dams are increasingly adding to its geological vulnerability. Southwest China is seismically vulnerable and not conducive for large projects.

- ▶ China's three pronged resettlement strategy used in the Three Gorges project are: first, 'settling migrants in nearby areas on land to be farmed'; second, 'allowing migrants to move to and live with relatives in urban areas'; and third, 'moving migrants far away'. However, the authorities' inability to provide sufficient compensation to the uprooted population, such as jobs to urban populace and/or alternative quality (mainly fertile) lands to farmers, defeated this strategy and later gave rise to widespread discontent among the people. Therefore, such displaced populations have a contrasting perspective to the country's global image as an 'engineering' superpower.



- ▶ There have been several protests against damming in China due to the government's inefficient and insufficient resettlement policies. But such protests have largely been suppressed by the state authorities in the past.

### Regional Implications of China's Dams

- ▶ **Socio Economic Crisis:** China's management of the Mekong River that originates in the Tibet has faced criticism from the entire world, particularly Southeast Asia, which is at its receiving end. Four countries of the lower Mekong basin – Laos, Cambodia, Thailand and Vietnam – depend on this river for food, water and transportation; and they have been distressed by China's activities on the river. Dams on this river have been held responsible for drought in some of these countries. In 2010, the river had acutely low water levels due to comparatively lesser monsoonal rainfall the previous year and light rainfall in the dry season. This is said to have been exacerbated by dams upstream in China. It generated losses worth millions of dollars. In Thailand, fishing communities are the most-affected as they are forced to stop fishery when the water levels go down significantly. Vietnam's farming area that is fed by the Mekong has been threatened time and again. When the freshwater flow from Tibet decreases, seawater intrusion is expected to increase and reduce the agricultural yield further.
- ▶ **Regional Conflicts:** The environment is changing at an unprecedented pace due to both natural and human-induced causes, if not put in perspective could definitely culminate in tensions or conflicts between China and its neighbours. Simultaneously, China, a closed system that does not disclose any information regarding its river management policies, has been in the process of changing various facets of environment to fulfill its requirements. Beijing has always maintained 'strategic silence' on its water diversion proposals and projects that makes any form of cooperation between China and its neighbours, including India, a difficult proposition. Approximately, 354 BCM of waters flow from Tibet to India out of which 131 BCM is accounted in the Brahmaputra River; China is planning to build twenty-eight dams on this river alone.
- ▶ **Impact on India and Bangladesh:** If China decides to divert waters during the monsoons, such an act is also not expected to cause any water insecurity for India and Bangladesh. The excess waters during monsoons have always been a source of concern for those two countries as they cause annual floods. However, if China diverts during the entire year, it could pose serious challenges for India and Bangladesh.

### Why India is worried about China's dam projects?

- ▶ China's dam building overdrive is a concern because there are no bilateral or multilateral treaties on the water and China believes dam building on the Brahmaputra helps it assert claim over Arunachal Pradesh.
- ▶ India believes China's projects in the Tibetan Plateau threaten to reduce river flows into India. The projects can turn water into a political weapon to be wielded in war, or during peace to signal annoyance with a co riparian state.
- ▶ China is contemplating northward re-routing of the Yarlung Zangbo. Diversion of the Brahmaputra is an idea China does not discuss in public, because it implies devastating India's northeastern plains and Bangladesh, either with floods or reduced water flow.
- ▶ In 2001, an artificial dam in Tibet collapsed and killed 26 people and damaged property of Rs 140 crore along the river Siang in Arunachal Pradesh.

- ▶ India and China signed two pacts in 2008 and 2010 which facilitates India with data on water levels and rainfall twice a day from June 1 to October 15 at three hydrological stations in Tibet.
- ▶ 2013 MoU - India and China have set up an Expert Level Mechanism on trans-border Rivers. In 2013, they signed a memorandum of understanding on trans-border Rivers, under which China has been supplying data to India on water flows.
- ▶ India came out openly against the OBOR policy manoeuvre, describing it as little more than a colonial enterprise, while also expressing reservations against the 'ecological and environmental' damages that a project of this size would cause.
- ▶ Activists in India concede that while Chinese engineers possess great expertise in building mammoth dams, the environmental impact of these hydro projects has not been placed in the public domain.
- ▶ In terms of ecological destruction, "when the Tehri Dam was constructed, it is known to have caused a great deal of ecological destruction. Since the size of these dams is much larger than our own Tehri Dam, the amount of destruction is going to be that much greater.

## Conclusion

China's water/river policies could adversely affect not only the population of other countries in its neighborhood but also its own population as seen in the case of the Three Gorges Dam. China is confronting immense socio-economic and environmental challenges due of its damming policies.

Additionally, the country is also reeling under cases of corruption and environmental change-related disasters caused by its development policies. Dam maintenance has inevitably become one of the biggest concerns for the Chinese officials as more and more instances of cracks in the construction of dams are emerging.

## ECONOMIC ISSUE

# New Procurement Policy with Tit-for-Tat Provisions

Context

*Recently Government has come up with new procurement policy to push local manufacturing and service. The policy is restrictive to non- local suppliers with Tit-for-Tat Provisions. In this context, we shall look at intricacies of the recent policy initiative with special focus on Tit-for-Tat provisions.*

## Policy for providing preference to 'Make in India' in Government procurements

Under the policy, preference in Government procurement will be given to 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.

In procurement of goods for Rs. 50 lakhs and less, and where the Nodal Ministry determines that there is sufficient local capacity and local competition, only local suppliers will be eligible.

For procurements valued at more than Rs. 50 lakhs (or where there is insufficient local capacity/ competition) if the lowest bid is not from a non-local supplier, the lowest-cost local supplier who is within a margin of 20% of the lowest bid, will be given the opportunity to match the lowest bid. If the procurement is of a type that the order can be divided and given to more than one supplier, the non-local supplier who is the lowest bidder will get half of the order and the local supplier will get the other half if it agrees to match the price of the lowest bid. If the procurement cannot be divided, then the lowest cost local supplier will be given the order if it agrees to match the lowest bid.

Small purchases of less than Rs.5 lakhs are exempted. The order also covers autonomous bodies, government companies/entities under the government's control.

A Standing Committee in Department of Industrial Policy and Promotion will oversee the implementation of this order and issues arising therein, and make recommendations to Nodal Ministries and procuring entities.

The policy has been developed keeping in view the core principles of procurement including competitiveness and adhering to sound procurement practices and execution of orders. The policy would continue to maintain the balance between promoting 'Make in India' and ensuring timely, value-for-money products for the procuring entities.

## Importance

The new policy will give a substantial boost to domestic manufacturing and service provision, thereby creating employment. It will also stimulate the flow of capital and

technology into domestic manufacturing and services. It will also provide a further thrust towards manufacture of parts, components, sub-components etc. of these items, which are in line with the vision of 'Make in India'.

Industrial production and manufacturing has hardly been as robust as it was expected, even after nearly three years of the launch of 'Make in India'. Unless manufacturing grows at high rates and expands its share in GDP, overall economic growth might remain stunted. Manufacturing also holds the key to future prospects of several small and medium enterprises (SMEs).

### **International Experiences**

Using public procurement for driving industrial production is not a new strategy. Countries with large state sectors have often tried to do so. One of the major examples is China. China has used procurement by its state-owned enterprises (SOEs) as an effective tool for benefitting local enterprises. Given that SOEs are major players in the Chinese economy both from production and consumption perspectives, many producer SOEs have benefitted from procurement policies favouring local enterprises. China extended the policy of preferential treatment for local enterprises in procurement to similar treatment of firms that used technology developed locally. Later, however, it was forced to withdraw the policy of encouraging 'indigenous innovation' under pressure from foreign investors.

### **Tit-for-Tat Provisions in the policy**

Entities from countries where Indian suppliers are not allowed to participate or compete in bids for government procurement, may be restricted or excluded from public procurement tenders in India. Such a provision, relating to "reciprocity," has been included in the new policy to encourage 'Make in India' by granting preference to local suppliers in public procurement.

If a nodal ministry is satisfied that Indian suppliers of an item are not allowed to participate and/or compete in procurement by any foreign government, it may, if it deems appropriate, restrict or exclude bidders from that country from eligibility for procurement of that item and/or other items relating to the nodal ministry.

### **Would the preference for local content in public procurement create complications for India's WTO obligations?**

Local content is a tricky issue as it can work against the WTO's 'national treatment' condition. National treatment principle within WTO framework means Imported and locally-produced goods should be treated equally. This principle of "national treatment" (giving others the same treatment as one's own nationals) is also found in all the three main WTO agreements (Article 3 of GATT, Article 17 of GATS and Article 3 of TRIPS). India is a part of all three agreements. If the WTO's recent adverse ruling on local content requirement by solar panel manufacturers in India is any indication, then the latest public procurement policy might also be dragged to dispute settlement.

### **Conclusion**

Since 80's, share of manufacturing in GDP composition is stagnant at 16%. Currently, the share of manufacturing in China's GDP is 42%. Manufacturing hold key to India's quest for generating formal sector jobs for 10-12 million youth joining labour force every year as half of all formal jobs are in manufacturing. However, new policy is also running the risk of locking horns with the multilateral trade framework and signaling a decisive inward-looking shift in economic policies.

## ECONOMIC ISSUE

# Impact of New Cattle Rules on Farmers: An Analysis

Context

- ▶ *The Environment Ministry has notified new rules tightening trade in livestock and transport of cattle to ensure their welfare at animal markets and also prevent smuggling.*
- ▶ *However, the move is welcomed by the animal rights activists but will eventually hurt farmers.*
- ▶ *This new rule will restrict the sale of cattle for slaughter in animal markets and imposing rules that put a majority of the country's animal markets in danger, it willy-nilly hit much more than the meat industry.*

## ‘The Prevention of Cruelty to Animals (Regulation of Livestock Markets) Rules’

- ▶ Ministry of Environment, Forest and Climate Change, Government of India has recently notified ‘**The Prevention of Cruelty to Animals (Regulation of Livestock Markets) Rules**’ which imposes a number of new regulations for the way animal markets are organized.
- ▶ This move will promote vigilantism and hurt the dairy industry. This will also impact meat exporting industry.

### *Some of the Provisions of the New Rules are:*

- ▶ The new notification defines Cattle as “bulls, bullocks, cows, buffaloes, steers, heifers and calves and camels”.
- ▶ The new rules effectively ban the sale of cattle for slaughter at animal markets nationwide including in states such as Kerala which allow the slaughter of cows.
- ▶ The rules say that “no person shall bring cattle to an animal market” unless a written declaration is furnished with details of owner and details of the identification of the cattle and mentions that the “cattle has not been brought to market for sale for slaughter”.
- ▶ The new notification also provisions that the authorities in charge of animal markets shall take an undertaking from purchasers that the animals are bought for agricultural purposes and not for slaughter and that they will not re-sell the animals for six months.
- ▶ The rules add that the authorities shall keep a record of the purchaser including his identity proof and verify that the purchaser is an agriculturist.
- ▶ The rules also specify that the purchaser shall not sacrifice the animal for any religious purpose or sell it to a person outside the state without permission.

- ▶ The rules also prohibit hot branding and cold branding, shearing, bi-shopping (in horses) and ear cutting (in buffaloes), and the use of chemicals on the body parts of animals to identify them or make them look younger.
- ▶ It also prohibits forcing animals to perform unnatural acts such as dancing and their castration by quacks or traditional healers.
- ▶ The rules detail the facilities that every animal market is required to have: adequate space, shade, feeding troughs, water tanks with multiple taps and buckets, lighting, and separate enclosures for sick and infirm animals, among others.

## Analysis

- ▶ The idea behind these new rules is to ensure that only healthy animals are traded for agricultural purposes, whereas animals for slaughter must be sourced directly from farms to ensure traceability. However, it has not brought any mechanisms to identify that the transported animals are for dairy or slaughter.
- ▶ India is currently the global leader in buffalo meat exports, which grew at a compound annual rate of 29% between 2007-08 and 2015-16, from Rs.3,533 crore to Rs.26,685 crore. This new move will hurt the meat exporting industry as it will not allow the individual farmers to sell their aged animals for slaughter (directly to meat exporters) without going to the nearest animal market.
- ▶ The new rules ensure that the cattle purchased will not be re-sold within six months. However, there is no any clarity to identify the cause of loss of cattle if the cattle die or is lost.
- ▶ This will also hurt the industries which are dependent on these raw materials to produce buttons, soap, toothpaste, paint-brushes and surgical stitches.
- ▶ Only 30% of cattle slaughtered in India are used for meat – either local consumption or export – while 70% of the carcass is traded for industries that deal in the aforementioned products, along with about three-dozen other items of daily use.
- ▶ Most of the 30% cattle slaughtered, of course, is the water buffalo because the culling of cows for meat is either totally banned or allowed with strict riders in all but five states.
- ▶ Eating, selling, transporting or exporting meat of the cow is a non-bailable offence, punishable with up to 10 years in jail in all of northern, central and western India. This is like dominating on the privacy of individual and directing humans' daily habits.
- ▶ The decision is politically rewarding at a time of easy vigilantism. But there are economic implications across the board on exports, the environment, and the rural economy — issues that should have been addressed before taking a hard line.
- ▶ According to the 2012 Livestock Census, India has a total of 191 million cows and bulls, and 109 million water buffaloes. These are together roughly 25 per cent of India's human population. Most of these end up on the streets as strays, spewing methane in this age of global warming. With culling a bad word now, the numbers will rise, "perhaps exponentially".
- ▶ India exported 2.4 million tonnes of buffalo meat to 65 countries in 2014-15, or 23.5% of global beef exports according to the Centre for Monitoring Indian Economy. It was worth Rs 30,000 crore, accounting for 1% of India's total exports, as part of the "Pink Revolution".

- ▶ This move will impact big on India's largely non-mechanized rural economy in which the life cycle of bulls and bullocks provides farmers with a sustainable economic model.
- ▶ Since the average bovine consumes about 65 litres of water and 40 kg of fodder a day, estimates put the cost of taking care of a bull at nearly Rs 40,000 per year at 2015 prices. With an estimated 1.18 million unproductive bulls in Maharashtra alone, feeding them costs about Rs 4,700 crore per year. This is likely putting unnecessary pressure on farmers which have been avoided if the farmers have sold the cattle before it become unproductive.

### Conclusion

- ▶ It is true that 'cruelty to animals' is covered in the Concurrent List and so both the Centre and states can enact laws on this subject and in case of a conflict, the central law will prevail.
- ▶ The Centre has used 'cruelty to animals' to justify the new rules but then the Act under which these rules have been framed does not treat slaughter as 'cruelty'. While framing rules, we cannot undo the Act. In fact the subject matter of these rules come under the exclusive jurisdiction of states as state list mentions 'agriculture' and 'preservation of stock' as state subjects.
- ▶ The new rules are a blot to the promise of cooperative federalism. Moreover, the rules will have an effect on the freedom of trade and occupation as restrictions imposed by them will fail the test of 'reasonableness.' The new rules also attempt to rewrite the ownership law as it prohibits a buyer from selling the animal for slaughter within six months of its purchase.
- ▶ Ownership is a bundle of rights, which includes the right to alienation and even right to destruction. These arbitrary rules, which are not based on any intelligible differentia and have no rational objective to achieve, are likely to be struck down as unconstitutional by the Supreme Court.

## ENVIRONMENTAL ISSUE

# Dam and Fishing: Positive and Negative Impacts


**Context**

- ▶ *Throughout history dams have irrigated farmland, supplied drinking and domestic water, prevented flooding and generated tremendous amount of electricity. However, it has caused some negative impact also like effect on fisheries, navigation systems, siltation, etc.*
- ▶ *More than 10.86 million Indians depend on rivers, wetlands, floodplains, estuaries, ponds and tanks for subsistence and market based fisheries. The contribution of riverine and capture fisheries is declining sharply and many have collapsed due to Dam and water logging, despite having a great potential to grow.*

## What is a Dam?

- ▶ A dam is a barrier that stops or restricts the flow of water or underground streams especially on the Earth, Masonry etc. built across a stream or river.
- ▶ Diverting the flow of water for the sake of later use also creates a dam kind of structure with huge storage.
- ▶ The primary purpose of the dam is to block the flow of water for hydropower generation, human consumption, irrigation, industrial use and navigability.
- ▶ Dams can be formed by human agency, natural causes, or even by the intervention of wildlife such as beavers. Man-made dams are typically classified according to their size (height), intended purpose or structure.
- ▶ We have over 5100 large dams and more than 500 are in pipeline. The focus of this development has been increase in irrigated areas, urban and industrial water demands, flood control and hydropower.
- ▶ In this ongoing development, all other services provided by rivers like fisheries, climate regulation, natural flood control, biodiversity, non use values of rivers, groundwater recharge, etc., have been sidelined and this has deeply affected dependent human and natural communities.
- ▶ The existing water infrastructure can be made more amenable to fisheries and other sectors through interventions like environmental flows, installing fish passes or ladders, protecting river sanctuaries, etc, but no attempts are being made in that direction.

## Positive Impacts of Dam on Fishing

- ▶ Dams offer for the setting up or indeed, the expansion of fishing industries. Water logging stops or slows down the migration of fish. This slow down leads



to accumulation of large amount of fish in one place which is regarded as the boost given by dams to fishing. Among other things this also slows down the migration of young people to the cities, and considered that the new fishing opportunities may even lure back those who have already left an area.

- ▶ Increasing level of water is likely to be a dramatic rise in the population of those fish species which are favoured by the new lacustrine conditions – although those fish which are adapted to a riverine environment will tend to disappear.
- ▶ All in all, however, the actual number of fish is likely to increase quite substantially as advantage is taken of the vastly expanded aquatic environment.
- ▶ The release of large quantities of nutrients from the rotting vegetation and soils which have been submerged by the reservoir – together with the increased populations of those microorganisms favoured by the new conditions – will encourage the expansion of fish populations.

### Negative Impacts of Dam on Fishing

- ▶ The building of a dam generally has a major impact on fish populations: migrations and other fish movements can be stopped or delayed, the quality, quantity and accessibility of their habitat which plays an important role in population sustainability, can be affected.
- ▶ Habitat loss or alteration, discharge modifications, changes in water quality and temperature, increased predation pressure as well as delays in migration caused by dams are significant issues.
- ▶ Due to the accumulation of water in one place, the submerged vegetation and soils soon rot down – thus reducing the amount of available nutrients. Competition and predation cuts down the inflated populations of those fish species which first dominated the reservoir's ecosystem. For example: Lake Volta of Ghana.
- ▶ Dams tend to reduce the catch of migratory fish by preventing them from reaching their spawning grounds. The higher the dam, the more fish will be lost trying to leap it or to swim through its turbines.
- ▶ In some cases, the resulting decline in certain fish species has been dramatic. In California, for example, catches of salmon have fallen by 90 percent largely because dams now make it almost impossible for the salmon to travel upstream in order to spawn.
- ▶ Fish can suffer major damage during their transit through hydraulic turbines or over spillways. Changes in discharge regime or water quality can also have indirect effects upon fish species.
- ▶ Increased upstream and downstream predation on migratory fish is also linked to dams, fish being delayed and concentrated due to the presence of the dam and the habitat becoming more favourable to certain predatory species.
- ▶ One of the major effects of the construction of a dam on fish populations is the decline of anadromous species. The dam prevents migration between feeding and breeding zones. The effect can become severe, leading to the extinction of species, where no spawning grounds are present in the river or its tributary downstream of the dam.
- ▶ The building of storage schemes and other water development projects has led to an increase in the salinity of many rivers.
- ▶ Aquatic weeds lead indirectly to the loss of fish life as a result of the herbicides which are used to eliminate them – albeit temporarily. Such chemicals kill certain species of aquatic life and leave others to proliferate, thus disrupting the aquatic ecosystem still further.

- ▶ The salt content of the lower reaches of many rivers become so high that they no longer provide suitable habitats for riverine fish.

### Conclusion

- ▶ The major role played by hydrological modifications and other changes in rivers caused by dams and barrages is undeniable. CIFRI claims that major hydrological alterations and changes brought about by dams are by far the most important cause for collapse of riverine fisheries, even more so than pollution and bad fishing practices.
- ▶ Initial success is invariably followed by long-term failure. It is important to realize, however, that a dam's impact on fisheries does not begin and end with the fate of the fish in its reservoir. By disturbing the ecological balance of the rivers it impounds, a dam can have a serious effect on fish life within the river basin itself – and, indeed, within the seas immediately beyond its estuary.
- ▶ The need of the hour is to explore and implement ways through which our existing water infrastructure becomes friendlier to fish and other aquatic species. Fortunately, many such options exist today which can be implemented if there is a strong political will, regulatory mechanism and community participation.

*“Water abstraction for irrigation and power generation is perhaps the biggest reason (for problems of inland fisheries), causing reduced or no flow in the main channel to support fisheries and other riverine fauna and flora.”*

*~ Report of the Working Group on Fisheries and Aquaculture of the 12th Five Year Plan*

## ECONOMIC ISSUE

# Implementation Issues in GST

Context

*India is attempting to introduce a streamlined tax system to handle indirect taxation within the country. While the new system has been acknowledged as beneficial in a number of ways, there remain concerns regarding its implementation. If handled poorly, this tax reform could have long-term effects on the Indian economy.*

## Introduction

India's tax regime relied heavily on indirect taxes. Indirect taxes was the major source of tax revenue till tax reforms were undertaken during nineties. The major case put forth for important dependence on indirect taxes was that the India's majority of population was poor and thus widening base of direct taxes had inherent limitations.

Goods and Services Tax is a tax on goods and services with value addition at each stage having comprehensive and continuous chain of set of benefits from the producer's/service provider's point up to the retailers level where only the final consumer should bear the tax.

GST is a path breaking indirect tax reform which will create a common national market by dismantling inter-State trade barriers. GST has subsumed multiple indirect taxes like excise duty, service tax, VAT, CST, luxury tax, entertainment tax, entry tax, etc.

On July 1st, India moved for its second historical financial policy shift in the span of 12 months - the advent of the Goods and Services Tax (GST). Unlike demonetisation which was announced by the prime minister without preamble, the implementation of the GST has long been in the work with initial discussions starting almost a decade ago. In formulating and implementing the GST which is meant to streamline the country's indirect tax system by amalgamating its many central and state taxes, the government has set ambitious goals for itself.

However, there are certain issues related to the implementation of the new tax system, among them;

- ▶ The uncertainty related to the functionality of the GST information technology system, and
- ▶ The ambiguity of the anti-profiteering clause.

These challenges could result in the sinking of an otherwise promising policy endeavor.

## Purpose of GST

The two important purposes of GST are:

- ▶ **Single Umbrella Tax Rate:** GST shall replace a number of indirect taxes being levied by Union and State Governments.
- ▶ **Removing Cascading Effect:** GST is intended to remove “Tax on Tax Effect” and provide for common national market for Goods and Services.

## The potential benefits of the tax reform

GST is all set to integrate State economies and boost overall growth. It will also help in increasing the GDP of the country by 1-1.5%. Such a tax system has already been implemented worldwide around 150 countries (France being First in 1954) and India is catching up with the global trends. Further -

- ▶ It will help bring India’s informal sector into the fold,
- ▶ Lower business costs across most sectors,
- ▶ Increase exports, and
- ▶ Reduce incidences of unnecessary double taxation.

## Implementation Issue related to GST network Functionality

- ▶ **Issue related to integrated technology network**
  - Key implementation issue could stem from the proposed technology backbone of the GST system. One of the lynchpins of the India’s GST is the integrated technology network that will allow for seamless documentation, recording of debits, and dispersal of credits.
  - Developed by some of the country’s leading IT firms, the Goods and Services Tax Network (GSTN) is the information technology platform that will be used in order to record all GST-related transactions.
  - An ambitious endeavor, the platform aims to hold up to 70 million user accounts. Yet, no one has been able to ascertain if it will be functional on the rollout date of 1st July.
- ▶ **Registration Issue**
  - The first area of concern lies in the registration of users for the website. According to the most recent numbers, 60 percent of the taxpayers from State Tax databases have registered themselves on to the platform.
  - Yet, only 6.5 percent of taxpayers from the Central Tax databases had registered seven days before the 31st March registration deadline.
  - Inadequate outreach on the part of the central government can be pointed out as the main culprit for the lack of registered users.
  - A lack of timely migration can cause serious issues for the viability of the GST as the IT infrastructure is the only possible way to track and properly implement the nascent tax system.
- ▶ **Auditing Issue**
  - Along with the registration challenge, the GSTN has also been dealing with an auditing issue. Ascertaining and verifying the accuracy of the data within the GSTN would seem to be a Herculean task, given its 70 million expected users.

- In order to do so, the Comptroller and Auditor General of India (which has been tasked with the audit), would need access to all GSTN data. Yet, the GSTN has refused data access to the CAG for auditing purposes, citing its private entity status (51 percent of the organisation is owned by private Indian financial institutions) and stating that it is only acting as the holder of the information.
- Without a proper audit of the data within the platform, there is no way to ascertain the functionality of the GSTN.
- Trust in the GSTN has already been brought up as an issue, with the lack of transparency into the majority privately owned organisation being cited as a crucial concern.

### Goods and Services Network (GSTN)

The process of tracking inter State transactions will be extremely complex and will require an infallible IT system. The clearinghouse mechanism envisaged in the dual model GST will handle humungous data. Designing and developing an IT infrastructure of such a size and complexity will be a herculean task. For this purpose, a Special Purpose Vehicle (SPV) called the Goods and Service Tax Network (GSTN) has been set up by the Government to create enabling environment for smooth introduction of GST.

#### ► Anti-profiteering Clause

- There is another implementation issue that could prove to be a hurdle for the GST, albeit on a smaller scale than the documentation and technology factors.
- One of the touted benefits of the GST system is the lowering of prices for many goods and services across the economy.
- In order to stop undue profiteering from changes in tax systems, an anti-profiteering clause has been added to the GST. The clause requires that businesses pass any benefits from the change in tax systems to the end consumer.
- The clause does not, however, provide any mechanism for the monitoring of anti-profiteering activity. The clause, and any subsequent investigation, will instead be triggered by credible complaints.
- The uncertainty associated with the antiprofitteering clause can affect both businesses and consumers. The private sector fears that ambiguity in the clause will lead to witch-hunts as tax authorities are given leeway to make subjective judgments as to whether a business is profiteering, without any regulations or laws to back their rulings.
- At the same time, consumers fear that ambiguous regulations or laws will lead to a lack of transparency and that decisions regarding the applicability of the anti-profiteering clause will be made on an ad hoc basis depending on political connections or even worse, outright corruption.
- The lack of clarity can, once again, have a detrimental effect on public perception regarding the GST. While public perception might seem like a trivial matter, it can often spell the difference between success and failure in the case of wide-scale implementation of policy Reform.
- A second disadvantage of a multiple rate structure is that it could lead to disputes on classification of goods and services.

► **Tax administration**

- The Central Board of Excise and Customs (CBEC) and the State tax administrations will be responsible for implementing CGST and SGST respectively. For implementing dual GST, a robust and integrated tax administration will be required to efficiently track flow of goods and services across the country.
- Any sort of risk management system will give meaningful results only when there will be an efficient tax administration. An inefficient tax administration will not be able to provide the necessary level of deterrence which may ultimately lead to non-compliance and under performance of the tax regime.

## Conclusion

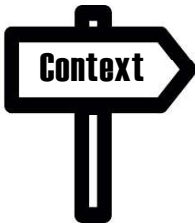
The Goods and Services Tax is a much needed tax reform, and if implemented correctly, can do wonders for India's economy. Along with eliminating double taxation and lowering product price, the GST can also assimilate the informal sector into the greater Indian economy and provide a much needed boost for India's lagging export market.

Yet there are implementation issues that could be problematic for India's small businesses and, perhaps more importantly, undermine public trust in the GST. The issues surrounding the GSTN can be managed if more time is given for continued enrolment of taxpayers and thorough testing of the IT infrastructure. Additionally, giving time for the CAG to conduct a thorough audit would allow for any functionality issues with the GSTN to be brought to light, preventing costly public trust issues.

Similarly, the problems with the anti-profiteering clause can be ironed out with more time and the implementation of widespread education and price monitoring policies in the lead-up to the GST. The formation of a committee to handle all complaints, creation of an audit unit specifically geared towards anti-profiteering testing, and putting in place regulations outlining what specifically constitutes anti-profiteering can help build corporate and public trust in the GST.

**SCIENCE ISSUE**

# Critical Analysis of India-Based Neutrino Observatory



*India-based Neutrino Observatory (INO) is an underground laboratory with a rock cover of approximate 1200 metre for non-accelerator based high energy and nuclear physics research in India.*

*The project also includes Inter-Institutional Centre for High Energy Physics (IICHEP) and Iron Calorimeter Detector (ICAL).*

*They're important to our understanding of the kind of processes that go on in the sun, and also an important building block for the blueprint of nature.*

*But the project is facing protests due to misunderstandings related to the Neutrinos. Hereby, critically analyzing the project.*

**What are the Neutrinos?**

- ▶ Neutrinos are one of the fundamental particles which make up the universe. They are also one of the least understood.

**NEUTRINO FACTORIES**  
Neutrinos are everywhere, generated by a variety of processes

- Fusion of hydrogen nuclei to form helium in the Sun.
- Supernovae and collisions between cosmic rays and air particles in Earth's atmosphere.
- Particle accelerators smashing protons into a target and fission from the radioactive decay of elements inside nuclear reactors.

**WHERE THEY WILL BE DETECTED**

- Deep Underground Neutrino Experiment (DUNE), United States**  
Status: Planned  
Cost: US\$1 billion  
Will make highest-energy neutrinos of any experiment.
- Hyper-Kamiokande, Japan**  
Status: Planned  
Cost: About \$800 million  
Will be the world's largest neutrino detector — it is 25 times bigger than its predecessor, Super-Kamiokande.
- Jiangmen Underground Neutrino Observatory (JUNO), China**  
Status: Construction begun  
Cost: \$330 million  
Sits under 700 metres of rock.
- India-based Neutrino Observatory (INO), India**  
Status: Funding approved  
Cost: \$233 million  
Will be largest experimental basic-science facility in India.

© nature

- ▶ Neutrinos are similar to the more familiar electron, with one crucial difference: neutrinos do not carry electric charge. Because neutrinos are electrically neutral, they are not affected by the electromagnetic forces which act on electrons.
- ▶ Neutrinos are affected only by a “weak” sub-atomic force of much shorter range than electromagnetism, and are therefore able to pass through great distances in matter without being affected by it.

- ▶ On the other hand the most powerful source of neutrinos in the solar system is doubtless the Sun itself. Billions of solar neutrinos per second pass (mostly without any interaction) through every square centimeter on the Earth's surface. In the Sun, neutrinos are produced after fusion reaction of two protons during positive beta decay of helium-2 nucleus.

### Applications of Neutrinos

- ▶ **Nuclear Proliferation Detection:** They could be used to remotely detect nuclear proliferation, as radiations are routinely generated by radioactive activities (especially plutonium 239 a by product of nuclear reactor).
- ▶ **Data Communication:** They could be used for faster data communication, because they travel large distances without getting attenuated.
- ▶ **Mineralogy:** As they change their direction and spin, depending upon the medium they pass, they could be utilized to map resources inside earth.
- ▶ **Disaster Prediction:** Geoneutrinos produced by radioactive decay of (Th, U) can give valuable information about earthquakes.
- ▶ **Information Bearers of Universe:** Neutrinos could also be helpful in unearthing the mystery of dark matters, because they are one of the few particles that pass through dark matter.

### About INO-Neutrino Observatory

The INO laboratory will host experiments such as the neutrino-less double beta decay and the search for dark matter.

The INO project will be set up near Pottipuram village in the Bodi West Hills of Theni district in Tamil Nadu. The project is at an estimated cost of 1500 crore rupees.

The project will be jointly supported by the Department of Atomic Energy and the Department of Science and Technology.

The infrastructural support will be given by the State Government of Tamil Nadu since the project is located in Tamil Nadu.

IICHEP will be established in Madurai that is about 110 km. from the proposed site of the Neutrino Observatory.

The construction of 50,000 tonne magnetised ICAL is done for studying the properties of the neutrino, especially, the mass hierarchy among different types of neutrino.

#### The Goals of INO are:

- ▶ To study neutrinos which are fundamental particles belonging to the lepton family. Neutrinos come in 3 flavours, one associated with electrons and the others with their heavier cousins the muon and the Tau.
- ▶ Development of detector technology and its varied applications.

The INO Project Director is Naba Mondal who is a Senior Professor at Tata Institute of Fundamental Research, Mumbai and was earlier associated with the pioneering experiments at the underground laboratory at Kolar Gold Fields.

### Geographical location benefit

Most of the neutrino detectors are scattered around the world at latitudes above 35°. There is none close to the equator as yet. It is possible to push such a detector down to almost 8° latitude in South India. Such a location permits neutrino astronomy searches covering the whole celestial sky, study of solar neutrinos passing through the Earth's core and finally neutrino tomography of the Earth at a future date using



terrestrial and laboratory neutrino sources. Hence, although INO will start its activity with the ICAL detector, it is envisaged that it will ultimately have other neutrino experiments as well under its umbrella. Indeed, electron neutrino detection (as an addition to ICAL or as a separate detector) opens up several possibilities for future directions including the augmentation of any long baseline program, or solar, supernova and geoneutrino studies.

Further the choice of site is primarily dictated by the rock quality, in order to obtain a stable safe environment for such long-term activity. Geologically, southern Indian mountains have the most compact, dense rock (mostly gneiss) while the Himalayas are mostly metamorphic sedimentary rock with pockets of gneiss.

The mountains of Tamil Nadu, in general, are the most attractive possibility, offering stable dense rocks with maximum safety for locating such a laboratory. Apart from this, availability of water and power and easy access to the site for maximum work efficiency are other factors.

### Myths associated with it

► **Will there be any radioactivity?**

No. The main reason for locating the laboratory underground is to create an environment free of the radiation that abounds on the Earth's surface. This radiation is due to cosmic rays and natural radiation of the materials around us. Hence the experiment will neither produce any radioactivity nor can it function well where there is radiation (at the Earth's surface).

► **Will there be hazardous chemicals and gases?**

The gas mixture used in the experiment consists of mainly argon, freon (environmentally friendly variety that is now used in all modern refrigerators), small quantities of isobutane and trace amounts of sulphur hexafluoride. The gas mixture is recycled many times before it is let out in small volumes. The ventilation system mixes the released gases with air to ensure the safety of every one.

► **Will it impact ecology of Western Ghats?**

Critics argue that building a subterranean facility using explosives - even if controlled to limit the impact of vibrations - will impact the fragile ecology of the Western Ghats at Theni and similarly at the proposed sites in the Eastern Ghats.

### NGT has suspended green nod

- The Southern Bench of the National Green Tribunal has suspended the Environmental Clearance (EC) granted to the India-based Neutrino Observatory (INO).
- Under the guidelines laid down by the Ministry, any project that falls within 5 km from an inter-State boundary or within a notified national park or a sanctuary has to be considered a Category 'A' project that involves a number of processes before an EC is granted.
- The project is near the Madhikettan Shola National Park in Idukki district of Kerala (just about 4.9 km from the proposed project site) and the Tamil Nadu-Kerala border was just a kilometre away thus making it a Category 'A' project.
- However, the MoEF had called it a Category 'B' project, for which an Environmental Impact Assessment is not necessary.

### Conclusion

Government and scientists should work in transparent manner with regard to the objectives of their activities and the risk factors, if any, that are involved by taking locals in confidence.

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**SOCIAL ISSUE**


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# Issue of Organ Trafficking in India


**Context**

- ▶ *India is rightly proud of its status as one of the World's fastest growing economies and one of the fastest growing Medical Tourism destination. At the same time India is also a place where black market trade in human organs takes place in rampant manner. Despite the Country's best efforts to eradicate the black market trade in human organs, India retains a reputation as an easy place to buy a kidney.*
- ▶ *UN Summit on Organ Trafficking and Transplant Tourism held in Feb 2017 raised concern about trafficking in human organs world-wide. The summit stated that organ trafficking and human trafficking for the purpose of organ removal is "true crimes against humanity that need to be recognized as such by all religious, political and social leaders, and by national and international legislation.*
- ▶ *The organ trafficking market is on the rise worldwide. Numerous unfortunate stories of networks of brokers, physicians, and hospitals engaged in illegal trade have been featured in media.*

## What is Organ Trafficking?

- ▶ Organ Trafficking is the trade of human organs, tissues or other body parts for the purpose of transplantation. There is a global need or demand for healthy body parts for transplantation, far exceeding the numbers available.
- ▶ Organ trafficking is, in essence, a crime against society. Preying on the despair of the poorest of the poor, it is a self-perpetuating cycle and further deepens social inequities.
- ▶ Organ Trafficking is continuing worldwide in Asia, Mexico and other Latin American Countries, Egypt, Pakistan, India with recipients coming from Canada and US, Western European Countries, Australia and the Gulf countries such as Saudi Arabia, Kuwait and the Emirates. Iran is known for its government sponsored sale of human organs.
- ▶ The most vulnerable to organ harvestings for trafficking are Children, Migrant (especially migrant workers), Homeless People, Illiterate People and Disabled People.

## **Types of Organ Trafficking**

The trafficking for organs is a crime that occurs in 3 broad categories:

- ▶ Cases where traffickers force or deceive the donors to give up an organ.
- ▶ Cases where the victims agree to sell an organ; these victims are usually cheated out of money.
- ▶ Organs are removed without the victim's knowledge and concerns.

## **What is causing the increase in illegal organ trade?**

- ▶ Increase in diabetes, liver and heart disease, increases the demand for organs. There is a demand and supply gap in organs.
- ▶ In India, around 200,000 people need a kidney every year, but only around 3% of the demand is met. Of these 200,000 in need of a kidney, around 15,000 can afford treatment but only 7,000 of these can afford transplant.
- ▶ Even if one can afford a transplant, finding a matching donor is difficult. Besides, under the law, only some people related to the person in need are allowed to donate, and this further shrinks the number of prospective organ donors.
- ▶ Medical advances have made it easier to take parts of the liver, lungs and kidneys from live donors.
- ▶ Fear that they will run out of time before they become eligible for a transplant causes people to rely on the black market.
- ▶ Humans ignore morality and the law when faced with death they are willing to brutally exploit another human being to extend their own lives. Or they are simply unaware that the organ was illegally obtained.
- ▶ Increase in poverty drives struggling persons to extreme options, especially if they are uneducated of the danger involved with medical operations like organ removal.
- ▶ With the lack of willingness among people who want to donate, an illegal trade market becomes conducive. Cases of illegal organ removal and transplant appear in the media on and off.
- ▶ Poor law and insufficient implementation or enforcement mechanisms of existing law in India promotes Organ trafficking.

## **Issues related to organ donation**

- ▶ The large numbers of road accident victims can, for example, provide a steady supply of organs — but that does not happen because of the lack of a consolidated programme and lack of awareness.
- ▶ Families of brain dead patients are reluctant to give organs. According to data available with the Indian Transplant Registry, a non-government effort supported by the Indian Society of Organ Transplantation, of the 21,395 kidney transplants that have happened in the country since 1971, only 783 came from cadaver donors.
- ▶ According to figures available with the Ministry of Health, the annual requirement of kidneys could be in the range of 1-2 lakh, while the number of transplants that happen every year is just about 5,000.
- ▶ There are religious and cultural myths associated with India against the phenomenon where people believe that the body will be disfigured if organ is taken out.

- ▶ According to government data, 200,000 people are waitlisted for kidneys in India and 30,000 currently await a liver. Legal donations meet about 3 to 5 percent of the demand.

### Legal Provisions in Organ Transplant

- ▶ Organs and tissue transplants are governed by the ‘**Transplantation of Human Organs and Tissues Act, 2011**’. According to the Act, organs can either be retrieved from cadavers or from brain dead patients with family consent, or may be donated by living donors.
- ▶ This Act recognizes three types of living donors: Near relatives like parents, siblings, grandparents, grandchildren or spouses; other who can donate for “affection and attachment” or for a special reason but not for financial considerations; and swap donors where near relative donors are swapped between patients whose own family members are incompatible. For Ex: If a husband is willing to donate a kidney to his wife but is not compatible, he can do so to another patient, provided a near relative of that patient is compatible with his wife and can donate a kidney to her.

### Loopholes in the organ transplant law

- ▶ For a long time, kidney racketeers have exploited the provision that allows an unrelated person to donate out of love and affection. Enterprising and unscrupulous elements have managed to bypass norms, all of which, experts say come from the one basic problem: the perpetual shortage of organs. The huge demand-supply gap has fuelled a murky black market in organs.
- ▶ “There are cases where people marry the donor, get the operation done and then divorce to escape any legal implications”.

### India launches organ donation awareness drive to check black market trade

- ▶ Doctors in India will now get text alerts reminding them to ask families to donate organs of their deceased loved ones as part of a nationwide campaign to solve the country’s organ shortage that has fuelled a black market trade in organs.
- ▶ The drive, “**Poochna Mat Bhoolo**” - which means “don’t forget to ask” in Hindi - will target 300,000 doctors and is the latest in a string of awareness campaigns in the country after a kidney racket involving a poor woman was busted in a top Mumbai hospital in 2016.
- ▶ The drive will reduce the gap between supply and demand if doctors, particularly those in intensive care units or major hospitals are sensitized to counsel families to donate organs. This will also legalize the process as it will eliminate the middleman.

### Conclusion

- ▶ Demand for organs could be met if the country taps into the pool of people who are brain dead and promotes organ donations. Also if the cadaver organ donation pick up, the organ trafficking will stop.
- ▶ Awareness among the people is must to promote the organ donation so that the ever increasing demand could be met.
- ▶ Laws regulating organ donations need to be amended along with strict implementation to avoid illegal trafficking.

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**ECONOMIC ISSUE**

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# Greenfield and Brownfield Investments

**Context**

*Often in news and public debate we come across jargons like Greenfield and Brownfield investments. These jargons are used more in FDI policy related issues. In this context it is important to demystify these terms and understand their relevance for developing countries like India.*

## Greenfield and Brownfield investments

Greenfield investment is investment in new plants. It is establishing new production capacity by an investor or company. On the other hand, Brownfield investment is an investor investing in an existing plant. Brownfield investment is mainly made through merger and acquisitions.

Applying the same criteria, Greenfield FDI in India is investment by a foreign investor in fresh production facilities. It is a situation where an MNC starts a new venture in India by constructing new operational facilities.

This new production capacity creation will bring new physical assets (like plants and machineries), creates fresh employment and adds to more production of the concerned good. Often Greenfield FDI has a merit that it brings superior technology by the MNC. Hence, the benefit of FDI in terms of capital, technology and creation of employment is realized only when the FDI is Greenfield in nature.

## Issues

Brownfield FDI is investment made by a foreign company in existing production arrangements. An important form of Brownfield investment is merger and acquisition by foreign MNCs in India. Here, a domestic company is taken over by the MNC. Disadvantage of Brownfield FDI as a source of investment is that it doesn't create expansion of production capacities or employment generation etc. At the same time, it may restrict competition if a MNC acquire two competing companies in India. For ex. Coca cola and Pepsi after liberalization acquired many local players.

Given the deficiency of Brownfield investment government imposes various restrictions on Brownfield investments. For example under Indian FDI policy investment in Brownfield airports is not under automatic route but such investment would require government nod. Government shall decide if such a investment will be beneficial to the economy given the negative effects Brownfield investments have.

### For example:

- ▶ **In Air Transport sector:** The government has permitted 100% FDI in brownfield projects through the automatic route. Demolishing/ remodelling an existing airport to build a new one is called Brownfield airport project. Earlier, 100% FDI was

allowed through the automatic route in greenfield airport projects while it is 74% in brownfield ones.

- ▶ **Pharma Sector:** The government allowed 74% FDI in “brownfield pharma” under the “automatic route”.

The issue became very pronounced in India’s pharmaceutical industry. The sector is very competitive globally and India is known as the pharmacy of the developing world.

According to the experts this new policy would allow powerful western pharmaceutical companies to take over important Indian pharmaceutical companies like Cipla and make them mere cogs in the multinational pharmaceutical industry “whose sole aim seems to be to generate supra-normal profits for its CEOs and shareholders”. Such an approach would lead to India losing “an independent generic industry that fiercely competes with patent-holding multinational pharmaceutical corporations to bring low cost essential medicines to the market”.

The 110th Report of the Department Related Parliamentary Standing Committee on Commerce headed by Shanta Kumar raised a much larger red flag. The Committee took due note of “the danger arising out of FDI in brownfield pharma projects to the entire health and IPR framework of the country in terms of access and affordability of medicines, domination and elbowing out of our pharmaceutical industry comprising of predominantly small and medium pharma units, undue demand and pressure on TRIPS arrangements, etc”.

The Committee recommended blanket ban on any FDI in brown field pharma projects.

### Positives of brownfield FDI

Globally, the pharmaceutical industry has realised that to remain competitive in the market, it is necessary for even innovator companies to shore up revenues through investments in the booming generics business. No longer do these companies seek to earn only through patented drugs and almost every one of these patent owning innovator companies will own a business that earns through sales of generics drugs.

Thus when Piramal or Ranbaxy were acquired by foreign investors like Abbot or Diachi-Sankyo, the aim was not to acquire and shut down the generics businesses of either company. Instead, the aim was to ensure that the investors profited from the booming generics business.

### Conclusion

Countries allow FDI so that economy can benefit from foreign investments. The importance of FDI is more important for developing countries which are generally capital scarce and labour abundant. FDI brings in capital, technology, managerial skills and provide employment. In this way, FDI is beneficial not only by bringing in capital but also absorbing labour force of a developing country. However, these benefits shall only be realized if the investment is made in balance with the human resource development.

## GOVERNANCE ISSUE

# Is India Prepared for Handling Zika Virus?

Context

- ▶ *The Zika virus is caused by the aggressive Aedes Aegypti mosquito that also causes Dengue and Chikungunya - both the viral diseases are of great public health concern to tropical countries like India.*
- ▶ *It first discovered in a Rhesus monkey in Uganda's Zika forest in 1947 and the first human case was reported in Nigeria seven years later in 1954, Zika has grabbed global attention because of its virulent form. Since there isn't any full proof treatment or vaccination that cures the Zika viral infection.*
- ▶ *Taking all into consideration, continued surveillance and effective preventive measures will be the first step to stop the Zika invasion in newly industrialized India. Nevertheless, the Indian government have also taken enough measures through Rapid Response Teams in monitoring the Zika outbreak, but more need to be done. Hereby critically analyzing the preparation level of the government to handle the issue.*

## Introduction

The Aedes vector species borne infections like Zika are a potential threat, especially in urban settings where 'Ae. aegypti', is abundant. The growing population in urban settings also increased the need for potable water, which necessitated storage practices in households, making ideal breeding habitats for Ae. aegypti mosquitoes, that also increase dengue infections. Due to this mosquito-borne viral diseases are going to be a major threat in the 21st century.

After first emerging on a remote Pacific island in 2007, the new strain, borne by the female Aedes mosquitoes and air travel, and detected in Brazil in May 2015, has swept through 26 countries in the Americas, Cape Verde in Africa and Singapore, where 200 infections were reported within eight days. Currently, 58 countries and territories are affected by the Zika virus, according to the Centers for Disease Control and Prevention (CDC), the American national health agency.

## Zika's vulnerability and spread across the global horizons

- ▶ The primary transmission of Zika- is the bite of the female Aedes mosquito when it has a human blood meal. Other modes of transmission include sexual intercourse, blood transfusions, and perinatal transmission from mother to foetus during gestation or at the time of delivery.

- ▶ Zika changed its character, from a relatively benign virus causing fever, malaise, skin rash, conjunctivitis (red eye), muscle and joint pain and headache, to one that causes neurological disorders such as microcephaly and the Guillain Barré syndrome (GBS), a temporary paralysis that can sometimes result in choking and death.
- ▶ Zika appears to have undergone significant number of mutations, possibly in its NS1 gene, to make it more neurotropic (affecting nervous system) and better adapted to grow in humans and mosquitoes. It has become a pandemic strain.
- ▶ The scary part about the new Zika strain, have ability to infect pregnant women and the unborn foetus to cause microcephaly, which leaves infants with not just distorted features but stops the growth of the brain.

### Why India needs to be Cautious?

- ▶ India contains Zika's "disease ecology" Aedes aegypti and Aedes albopictus mosquitoes, crowding, poverty, lack of sanitation and hygiene, travelers and visitors and warming that prolongs mosquito season.
- ▶ Most people infected with Zika are asymptomatic and present with clinical manifestations ranging from mild fever to severe neurological disorders. Recent outbreaks in Southeast Asian countries, Centers for Disease Control and Prevention has warned pregnant woman to avoid non-essential traveling to 11 Asian countries.
- ▶ The sexual transmission route of Zika has pushed the World Health Organization to declare it a 'public health emergency'. Having this current warning status, it has become mandatory to consider where second highly populated country India stands in terms of spreading awareness and taking precautionary measures against the Zika virus infection.
- ▶ Further till date, 11 Southeast Asian countries namely Brunei, Myanmar, Cambodia, Indonesia, Laos, Malaysia, Maldives, Philippines, Thailand, Timor-Leste and Vietnam were reported with outbreak of Zika infection in occasional or smaller level. In addition to this, Singapore was added to travel notice list by CDC with the recent outbreak.
- ▶ The spread of the ZIKV is also alarming as it might lead to a potential increase in maternal mortality in India, where the rate is already high (15% compared to other nations) and recorded AIDS-related maternal mortality was 2080 in 2015.
- ▶ India is having a trade relationship with most of the ZIKV affected countries in Latin America, especially Mexico and Brazil. In Mexico, there are nearly 2,500 Indian Diaspora members as Non Resident Indians in various firms such as business persons, scientists, researchers and students and reports also indicate that Mexico has become a route for illegal migrants from different countries including India.
- ▶ India is also the vulnerable country to Zika with 67,422 travelers arriving per year across the globe and 1.2 billion residents in India with potential Zika transmission areas.

### Critical analysis of Public Health Preparedness

- ▶ India is a signatory to all the major international declarations on disability and child rights which result out of the Zika, Malaria, Dengue, Chikangunya, Japanese Encephalitis, Kala-Azar and Filaria etc.
- ▶ The policies are focused on the empowerment of persons with disabilities, addressing issues of employment rights, and ensuring an environment that does not hinder the mobility of the disabled person.



- ▶ But a microcephalic child is not likely to achieve the potential for employment or have sufficient mobility to benefit from the fruits of the Accessible India Campaign. For these children, their primary right is the right to rehabilitation and care, especially if poor public health activities permit the Zika virus to spread through the country.
- ▶ India lacks in this rehabilitation mechanism.
- ▶ At present, there are few fragmented public services for the rehabilitation of children with severe disabilities. Most available services are delivered by private providers and non-governmental organisations. To a large extent, these are available to those who can afford to pay, underlining the public responsibility to provide care to children from the most vulnerable strata of Indian society.
- ▶ Current district rehabilitation centres are suboptimal facilities, with the responsibility of running these centres transferred to non-governmental organisations. Most doctors are unaware of the presence of these centres, so parents who manage to reach these facilities learn about rehabilitation by word of mouth.
- ▶ A huge investment is required to functionalise existing services and Staff need to be trained in sensitive counselling methods.
- ▶ Counselling services need to be extended to antenatal services as a woman could be diagnosed as carrying a baby with microcephaly. This psychosocial support service would assist parents to prepare for the impending birth.

### Public Health Response

- ▶ National Guidelines and Action Plan on Zika virus disease have been shared with the States to prevent an outbreak of Zika virus disease and containment of spread in case of any outbreak.
- ▶ An Inter-Ministerial Task Force has been set up to monitor emerging and re-emerging diseases is regularly reviewing the global situation on Zika virus disease.
- ▶ All the international airports and ports have displayed information for travellers on Zika virus disease.
- ▶ The airport health officers along with airport organizations, National Centre for Disease Control, and the National Vector Borne Disease Control Programme are monitoring appropriate vector control measures in airport premises.
- ▶ The Integrated Disease Surveillance Programme (IDSP) is tracking for clustering of acute febrile illness in the community.
- ▶ In addition to National Institute of Virology, Pune, and NCDC in Delhi, 25 laboratories have also been strengthened by Indian Council of Medical Research for laboratory diagnosis. In addition, 3 entomological laboratories are conducting Zika virus testing on mosquito samples.
- ▶ The Indian Council of Medical Research (ICMR) has tested 34,233 human samples and 12,647 mosquito samples for the presence of Zika virus. Among those, close to 500 mosquitos samples were collected from Bapunagar area, Ahmedabad District, in Gujarat, and were found negative for Zika.
- ▶ The Rashtriya 'Bal Swasthya Karyakram (RBSK)' is monitoring microcephaly from 55 sentinel sites. As of now, no increase in number of cases or clustering of microcephaly has been reported from these centers.
- ▶ Risk communication materials are being finalized by the Central Health Education Bureau, in consultation with UNICEF.

- ▶ Making doctors more aware about the presence of district rehabilitation centre. Staffs need to be trained in sensitive counselling methods. Counselling services need to be extended to antenatal services as a woman could be diagnosed as carrying a baby with microcephaly. The psychosocial support service would assist parents to prepare for the impending birth.

## Conclusion

- ▶ It is evident that it is time for Indian government to allocate a considerable amount of funds towards the Zika campaign and other infrastructure facilities that supports testing and other progresses. Emergency allocation of fund is not impossible in India with 29 states having their own health budget apart from the union health budget.
- ▶ At the same time, the state governments have also strived to enhance their community programs to create awareness among people, especially among women. In Indian states where DENV is highly prevalent, citizens were asked to wear long sleeves and full pants to cover the entire body, utilize insecticide-treated bed nets, and use netted doors and windows in the home and permethrin-treated clothing and gear when outside to avoid getting mosquito bites.
- ▶ In addition to this, the best preventive measure for ZIKV will be the destruction of larval breeding sites, elimination of stagnant water, and the installation of proper sanitation facilities.
- ▶ It is also advisable that the Indian Ministry of Electronics and Information Technology includes a ZIKV campaign in its Digital India website, which can reach the whole population, as digital media has its phases of development in drawing more attention for awareness perspective.
- ▶ Some effective methods to combat the ZIKV such as practicing safe sex, implementing safety measures in blood and blood-related ZIKV transmission targets, raising public awareness, developing vaccines, implementing vector control programs, and also by public and private sectors prioritizing research on the ZIKV. In addition, it is mandatory for one to be careful during sex of any kind (vaginal, oral & anal) by using condoms, dental dams, or avoiding sex during the time of the entire pregnancy. This will ensure an effective surveillance approach for pregnant women who are returning from endemic regions.

## GOVERNANCE ISSUE

# Road Safety Risks and Preventive Measures

Context

*Every year the lives of approximately 1.25 million people are cut short as a result of a road traffic crash. Between 20 and 50 million more people suffer non-fatal injuries, with many incurring a disability as a result of their injury. Road traffic injuries cause considerable economic losses to individuals, their families, and to nations as a whole. These losses arise from the cost of treatment as well as lost productivity for those killed or disabled by their injuries, and for family members who need to take time off work or school to care for the injured. Road traffic crashes cost most countries 3% of their gross domestic product.*

*In this context, we shall look at risk of various kinds which magnify the fatality and actions required to reduce the risk. We shall also look at scenario in India with respect to road fatalities and recent amendment to Road Safety Act.*

## Measurement of road fatality and Economy

Several indicators aim to illustrate the impact of traffic crashes. The most common ones are the number of fatalities and injuries. Globally some 1.3 million people die on the road every year and up to 50 million suffer injuries. And overall economic costs of road crashes range from 2-5 percent of GDP in many countries. These economic costs provide a basis for transport safety improvement projects such as hazard location treatments, road audits, school zones and other preventive measures.

It is important, however, to turn our eyes on the impact of road crashes at the household level. The impact on a family in losing a loved one is enormous, both in terms of emotional trauma and/or loss of income or caused disability, especially when many poor countries do not have strong enough safety nets for victims of road crashes. The impact of road crashes is less understood, and lack of strong data or evidence on these is a challenge in many countries.

If a member of a family is involved in a road crash, what kind of changes are likely to occur in that particular family? If the head of household or breadwinner is killed or severely injured, the impact to that household can be devastating.

## Who is at risk?

More than 90% of road traffic deaths occur in low- and middle-income countries. Road traffic injury death rates are highest in the African region. Even within high-income countries, people from lower socio-economic backgrounds are more likely

to be involved in road traffic crashes. People aged between 15 and 44 years account for 48% of global road traffic deaths.

Driving under the influence of alcohol and any psychoactive substance or drug increases the risk of a crash that results in death or serious injuries. Wearing a motorcycle helmet correctly can reduce the risk of death by almost 40% and the risk of severe injury by over 70%.

There are many types of distractions that can lead to impaired driving. The distraction caused by mobile phones is a growing concern for road safety.

- ▶ **Unsafe road infrastructure:** The design of roads can have a considerable impact on safety. Ideally, roads should be designed keeping in mind the safety of all road users. This would mean making sure that there are adequate facilities for pedestrians, cyclists, and motorcyclists. Measures such as footpaths, cycling lanes, safe crossing points, and other traffic calming measures can be critical in reducing the risk of injury among these road users.
- ▶ **Unsafe vehicles:** Safe vehicles play a critical role in averting crashes and reducing the likelihood of serious injury. There are a number of UN regulations on vehicle safety that, if applied to countries' manufacturing and production standards, would potentially save many lives. These include requiring vehicle manufacturers to meet front and side impact regulations, to include electronic stability control (to prevent over-steering) and to ensure airbags and seat-belts are fitted in all vehicles. Without these basic standards the risk of traffic injuries – both to those in the vehicle and those out of it – is considerably increased.
- ▶ **Inadequate law enforcement of traffic laws:** If traffic laws on drink-driving, seat-belt wearing, speed limits, helmets, and child restraints are not enforced, they cannot bring about the expected reduction in road traffic fatalities and injuries related to specific behaviours. Thus, if traffic laws are not enforced or are perceived as not being enforced it is likely they will not be complied with and therefore will have very little chance of influencing behaviour.

Effective enforcement includes establishing, regularly updating, and enforcing laws at the national, municipal, and local levels that address the above mentioned risk factors. It also includes the definition of appropriate penalties.

## Scenario in India

At least 410 people lost their lives daily in road accidents across India last year compared to 400 lives in 2015. On the other hand, the rate of rise in fatalities came down in 2016 compared to the previous year. Since 1970, road accident deaths have consistently increased, except in 2012 and 2013. Inadequate laws, poor enforcement and perception that “accidents are inevitable” are cited as main reasons behind the deaths.

Every year 5 lakh road accidents are reported in the country in which 1.5 lakh people lose their lives. Government is committed to reduce the accidents and fatalities by 50% in five years. To address the issue of road safety and to improve the facilitation of the citizens while dealing with transport departments, Ministry of Road Transport & Highways constituted a Group of Transport Ministers (GoM) of the States. The GoM recommended that to address the pressing issue of road safety and improving transport scenario, Government should immediately bring amendments to the present Motor Vehicle Act.

The amendments mainly focus on issues relating to improving road safety, citizens' facilitation while dealing with the Transport Department, Strengthening rural transport, last mile connectivity and public transport, automation and computerization and enabling online services.

In the area of road safety, Bill proposes to increase penalties to act as deterrent against traffic violations. Stricter provisions are being proposed in respect of offences like juvenile driving, drunken driving, driving without licence, dangerous driving, over-speeding, overloading etc. Stricter provisions for helmets have been introduced along with provisions for electronic detection of violations. However, the Bill has been passed in Lok Sabha but yet to be passed in Rajya Sabha.

### **What can be done to address road traffic injuries?**

Governments need to take action to address road safety in a holistic manner. This requires involvement from multiple sectors such as transport, police, health, education, and actions that address the safety of roads, vehicles, and road users.

Effective interventions include designing safer infrastructure and incorporating road safety features into land-use and transport planning, improving the safety features of vehicles, improving post-crash care for victims of road crashes, setting and enforcing laws relating to key risks, and raising public awareness.

### **Conclusion**

Road safety risks could be reduced if proper implementation of rules takes place and there is an attitudinal shift in the society towards Road safety. Though new amendments to Motor vehicle act intend to reduce road fatalities by 50%, the most important step would be to implement these provisions in right earnest.

One of the most productive measures to bring down accidents is zero tolerance enforcement. Strong policing reduces the risk for vulnerable road users such as pedestrians and two-wheeler riders, who must be compelled to wear helmets.

## POLITICAL ISSUE

# Procedure for Removal of Judges: Critical Analysis


**Context**

- ▶ *Why since 1949 no Judge could be removed in spite of there is prima facie evidence against him. However, the procedure of Removal which is given in the Constitution, is very rigid and complex, the reason behind this is to maintain the independence of the Judiciary and not to protect the corrupt Judges in the guise of independence.*
- ▶ *The founding fathers of the Constitution adopted cumbersome process of impeachment so as to ensure the independence of Judges. Hence, it becomes pertinent to critically analyse the procedure for removal of judges. Today, a debate is going on how to bring the judges to the justice; after all they are not above the Constitution.*

## Constitutional Provisions for removal of Judges

- ▶ A judge of the High Court and Supreme Court can be removed from his office by an order of the President. The President can issue the removal order after an address by the Parliament, supported by a special majority of each House of Parliament (that is a majority of the total membership of that House and a majority of not less than two thirds of the members of that house present and voting) has been presented to the President in same session of Parliament for such a removal.
- ▶ A judge of the Supreme Court is removable from his office, only on the grounds of proved misbehavior or incapacity. Parliament is empowered to regulate the procedure for the investigation and proof of such misbehavior or incapacity.

### *The Procedure*

- ▶ Removal of Judges are governed by Articles 124 (4) and (5) and 217 (1) and 218 of the Constitution.
- ▶ As per the judge's inquiry Act 1986, the removal of judges can be done on grounds of proven misbehaviour and incapacity, on the recommendation made by Chief Justice of India to the President of India.
- ▶ A motion of removal addressed to the President is to be signed by at least 100 members of the Lok Sabha or 50 members of the Rajya Sabha and then delivered to the Speaker of Lok Sabha or the Chairman of Rajya Sabha.
- ▶ The motion is to be investigated by a Committee of 3 judges of the Supreme Court and a distinguished jurist.

- ▶ If the Committee finds the judge guilty of misbehavior or that he suffers from incapacity, the motion along with the report of the committee is taken up for consideration in the House where motion was moved.
- ▶ The judge is then removed by the requisite majority, i.e. majority of total and 2/3 of its members present and voting and the announcement is done by the President of India.

### Critical Analysis

- ▶ In the recent past, people have come to realize that the system of removal of judges provided in the Constitution is of no real value. Much of it can be blamed on the need to get the motion for removal signed by not less than a hundred members of Lok Sabha or fifty members of Rajya Sabha, which many consider to be an impossible task in itself, unless one already has unimpeachable evidence proving the guilt of the judge.
- ▶ In most cases, collection of indicting evidence is not possible unless an independent body takes charge.
- ▶ When a judge is not removed through this process but his conduct generates a mood of dissatisfaction in public, the question one needs to ask is: who would ask the judge to demit the office in grace? The answers can be found once the past experience in such cases is analyzed.
- ▶ In the V. Ramaswami case of the late 1980s, inconsistencies were found in an audit done regarding purchases made for the High Court. The evidence necessary to frame Ramaswami was present in the report. He was tried by a committee of three judges appointed by the Lok Sabha speaker, who found him guilty. However, he escaped any consequences because the party in power decided to abstain from voting on the motion. This clearly shows the existence of conflicting interests among the members of Parliament.
- ▶ A motion was admitted in Rajya Sabha by its chairman against Veeraswami in December 2009 seeking his removal on the charges of corruption and abuse of his office. However, before the proceedings could be completed even in one house, he tendered his resignation citing lack of faith and confidence in the three-member inquiry committee probing the charges against him. Thus, he managed to get post-retirement benefits even before the proceedings could be completed and the allegations could be formally proved.
- ▶ The Constitution of India provided two grounds for removal of judges: the Proved Misbehaviour or Incapacity. However, the meaning of both the term has not been defined anywhere in the Constitution except under Article 317 (Removal of members of Public Service Commission) of the Constitution.

Article 317 says: “(A member) is or becomes concerned or interested in any contract or agreement made by or on behalf of the Government of India or the Government of a State or participates in any way in the profit thereof or in any benefit or emolument arising there-from otherwise than as a member and in common with the other members of an incorporated company.”

The provision of Article 317 deals particularly with inability that a member may face in performance of his duties due to any monetary benefits that he might draw by having such an interest. No such provision appears in Article 124 but one may safely incorporate this meaning to the elastic term-misbehaviour.

- ▶ Thus, it is clear that procedure for removal of any judge of a superior court has been made more difficult than that of a member of a Public Service Commission. Under this, all the constituents of this lengthy procedure have to be fulfilled in

the same session of the Parliament which makes successful completion of the proceedings even tougher.

### Suggestions to bring judges to the justice

- ▶ Justice J. S. Verma advised a **Model Code of Conduct for judges** and reiterated, “If we do not question ourselves the people may enact a law empowering somebody else to question us.” Justice Verma also indicated towards growing corruption in the judiciary.
- ▶ Former Chief Justice of the Supreme Court, E. S. Venkataramaiah, castigated the “dine and wine judges” and called for a mechanism to punish the errant judges.
- ▶ National Commission to Review the Working of the Constitution headed by Chief Justice (Retired) M. N. Venkatachaliah states: “It has produced some very brilliant and extraordinary judges known for their learning, integrity and devotion to law. There have been some exceptions too and in the recent years more such exceptions are coming to light. There has been, of late, public concern over judges not observing working hours, being away from court work even without seeking leave, unduly delaying judgments and otherwise conducting themselves in an unjudge like manner. It is these few persons whose conduct calls for disciplinary system so as to preserve the fair name of the judiciary. Such a system will protect those unjustly accused. That apart, the very existence of the system will be a deterrent and will obviate the need to use it.”
- ▶ The Commission to Review the Working of the Constitution, the Dinesh Goswami Committee on judicial reforms and other bodies have stressed the need for punitive correctives in the superior judiciary.

### Conclusion

- ▶ The present procedure laid down in the Constitution for the removal of a Supreme Court or High Court judge on the ground of proven misbehaviour or incapacity is cumbersome, unworkable, unrealistic and therefore impossible.
- ▶ Any behaviour that tends to undermine the stature of the courts or a particular judge’s credibility may have a seriously damaging effect on the public confidence in the judiciary. Therefore, it is necessary to understand what the word misbehaviour clearly entails.
- ▶ Thus proper steps should be taken to manage it.



## ECONOMIC ISSUE

# Daily Dynamic Price Revision: Critical Analysis

Context

*From June 16, 2017, the public-sector oil marketing companies started the system of daily price revision.*

*The prices of transport fuels, i.e. petrol and diesel, are subject to a daily revision across the country—at almost 58,000 petrol pumps—in sync with international oil prices. With this, India has joined the select club of developed countries such as the US, Japan, Australia, Germany and Russia.*

*Hereby, analysing the positive and negative impacts of the initiative.*

## What is 'daily dynamic price revision'?

- ▶ State-run fuel retailers — Indian Oil Corporation, Hindustan Petroleum and Bharat Petroleum — currently revise rates on the 1st and 16th of every month, based on average international price in the preceding fortnight and the currency exchange rate. In dynamic fuel pricing, retail selling prices of petrol and diesel will be revised daily.
- ▶ Under this system, the prices of petrol and diesel are being revised every day. The price for any day will become effective from 6 a.m.

## For which fuels this has been done?

- ▶ OMCs have done this change for petrol and diesel.
- ▶ LPG and kerosene are not yet deregulated and hence dynamic pricing has not been implemented for them.

## How are the prices determined under this system?

The price is determined by the:

- ▶ Movement of crude oil price (the main raw material),
- ▶ Rupee/dollar exchange rate, and
- ▶ Demand-supply situation in the market (Deficit of the product leads to a rise in its price, an increase in supply will lead to a decrease).

## Why have we shifted to this new system?

- ▶ **International scenario:** It is a practice in developed countries (U.S. and several European countries). Infact there are some countries where prices change more than once during the day.
- ▶ **Parity with international product prices:** This move by the government is aimed at bringing parity with international product prices — diesel and petrol.

- ▶ **Transparency:** According to the Oil marketing companies (OMCs), the daily revision (as compared to fortnightly revision) will bring in more transparency within the system.
- ▶ **Reining speculative markets:** When changes were fortnightly, it led to speculation in the market at times that prices would go up or come down and customers behaved accordingly. At a national level it had a big impact. With DDPR, this will get reduced.
- ▶ **Minimizes impact on working capital:** OMCs also believe that it will also minimise the impact of increasing/decreasing prices on the working capital of companies and dealers.
- ▶ **Passing down the benefits:** This move will ensure that the benefit of even the smallest of changes in international oil prices is passed down the line to dealers and the end users everyday.
  - In case of a decline in crude oil prices, the benefit will be passed on to the customer the next day itself.
  - In case of a rise in crude prices, oil marketing companies will be able to immediately pass on the price hike to the customers.
- ▶ **Greater competition in the market:** While private-sector companies in certain cases offer petrol and diesel at a more competitive price, this will improve the ability of public sector OMCs, too, to offer competitive prices and even the dealers at their level can go ahead and offer lower prices to attract customers. This should finally benefit the customer.

### Opposition to the move

Dealers were unhappy about switching over to the new prices every midnight. They had given a bandh call over the issue seeking change in timing as under the new regime they would have to deploy manpower everyday to change rates at midnight. The government has agreed to their demand and fixed the switchover time at 6 a.m. Besides, the Federation of All India Petroleum Traders, an umbrella body of fuel vendors, is concerned about inventory losses in case of drop in global prices and the move's impact on dealers' margins.

There have been movements in the price since the launch of the initiative as the price is determined not only by the movement of crude oil price (the main raw material) but also by the rupee/dollar exchange rate and demand-supply situation in the market. While a deficit of the product leads to a rise in its price, an increase in supply will lead to a decrease. Over the first one week (June 16-22), the global crude oil price for the Indian basket fell by 2.5% — from \$45.6 per barrel to \$44.45 per barrel — and the price of petrol and diesel in Delhi came down by 1.6% and 1% respectively.

### What are the hurdles?

Out of India's 56,000 petrol pumps, less than 50% are automated to enable any centrally updated price change to take effect. By its own admission, market leader IOC has only 10,000 of its 26,000 pumps automated. While HP and BP have around 13,000 outlets each, only 2,000 and 8,400 are automated respectively. And the rest, IOC assures, will get timely information on the effective prices for the day. Fuel vendor bodies, such as the Delhi Petrol Dealers Association beg to differ. They say the automation system at most of the pumps are not supporting the automatic price change in the dispensing machine. Also, petrol dealers are not ready to manually update the price on a daily basis as manual intervention can lead to errors and delays in operation of the petrol pump.

**What are the future prospects related to it?**

- ▶ It may increase the entry of private players in oil market. The current dynamic pricing of fuel has the potential to attract participation of private players in fuel retailing and several downstream opportunities, thus exposing the downstream and marketing to best practices and modern technology in refining. For successful fuel retail participation across a large country like India, private players will need to have better policy environment right from land acquisition to an efficient licensing regime.
- ▶ In addition, the government can look beyond canalisation in their current fuel import policy and enable firms other than the government-owned Indian Oil Corporation Ltd (IOCL) to import motor fuels, a practice recently enabled by the government of Mexico. This will also help to lay the foundation needed for coping with the expected increased demand for specific refined products in the upcoming years.
- ▶ A liberalised retailing regime may also expose the PSUs into an intensive competitive scenario. Currently, Indian oil PSUs are lagging behind domestic private oil companies in refining margins as they fall back in refining technology, particularly in secondary conversion units like catalytic cracking, coking, hydrocracking, etc.

## INTERNATIONAL ISSUE

# BIMSTEC at 20: Prospects and Challenges

**Context**

*On June 06, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) completed 20 years of its establishment. BIMSTEC is home to 1.5 billion people, accounting for approximately 21 per cent of the world population, and a combined GDP of US\$ 2.5 trillion. The growth rate sustained by the BIMSTEC countries is around six per cent per annum.*

*However, despite its huge potential in terms of enhancing regional cooperation between parts of South and Southeast Asia, BIMSTEC has long suffered from lack of resources and proper coordination among its member states.*

*The current discusses the foundation and objectives of the BIMSTEC as well as analyzes the future prospects and challenges faced in last 20 yrs.*

**Backgrounder**

BIMSTEC, a sub-regional organisation was started on June 6, in the year 1997 through Bangkok Declaration.

On June 06, 2017, the BIMSTEC completed 20 years of its establishment. BIMSTEC is emerging as a new grouping among South-East and South Asian economies.

Recently, PM Narendra Modi wished the institution on its 20th anniversary and described the sub-regional grouping as “a natural platform” to fulfill India’s “key foreign policy priorities of ‘Neighbourhood First’ and ‘Act East’”. The commitment to peace & development connects the BIMSTEC family.

Earlier in October 2016, India had hosted the BIMSTEC members at Goa during the BRICS (Brazil, Russia, India, China and South Africa) Outreach Summit. It was viewed as a pragmatic step on India’s part, demonstrating its potential to play the role of a regional leader, an aspiration which was instrumental in transforming its ‘Look East’ into ‘Act East’ policy.

The BRICS-BIMSTEC Outreach Summit is believed to have given BIMSTEC its due importance by inviting its members to participate in a larger platform comprising five major emerging economies of the world. Thus, hereby analysing its significance, prospects and challenges.

**What is BIMSTEC?**

BIMSTEC is a regional organisation which comprises of seven member states which lie near the Bay of Bengal.

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is an international organisation involving a group of countries in South Asia and South East Asia. BIMSTEC consists of seven countries: 5 come from South Asia, including India, Nepal, Bangladesh, Bhutan, and Sri Lanka; and 2 come from Southeast Asia, which includes Myanmar and Thailand. BIMSTEC headquarter is situated in Dhaka, Bangladesh.

It came into being on 6 June 1997 as a new sub-regional group in Bangkok and given the name BIST-EC (Bangladesh, India, Sri Lanka, and Thailand Economic Cooperation). Later, Myanmar attended the inaugural June Meeting as an observer and joined the organisation as a full member at a Special Ministerial Meeting held in Bangkok on 22 December, 1997, upon which the name of the grouping was changed to BIMST-EC. Nepal was granted observer status by the second Ministerial Meeting in Dhaka in December 1998. Subsequently, full membership was granted to Nepal and Bhutan in February 2004.

### What are the objectives of BIMSTEC?

The main objective of BIMSTEC is technological and economic co-operation among South Asian and South East Asian countries along the coast of the Bay of Bengal.

- ▶ **Economic Development:** To create an enabling environment for rapid economic development through identification and implementation of specific cooperation projects in the sectors of trade, investment and industry, technology, human resource development, tourism, agriculture, energy, and infrastructure and transportation.
- ▶ **Growth:** To accelerate the economic growth and social progress in the sub-region through joint endeavours in a spirit of equality and partnership.
- ▶ **Collaboration:** To promote active collaboration and mutual assistance on matters of common interest in the economic, social, technical and scientific fields.
- ▶ **Assistance:** To provide assistance to each other in the form of training and research facilities in the educational, professional and technical spheres.
- ▶ **Cooperation:** To cooperate in projects that can be dealt with most productively on a sub-regional basis and make the best use of available synergies among BIMSTEC member countries.

### Prospects and Achievements

- ▶ According to the June 1997 Bangkok Declaration, the founding objectives of the sub-regional initiative were economic development, growth collaboration and cooperation and the total of 14 priority sectors have been identified by the members.
- ▶ Later in 2004, Free Trade Agreement (2004) was signed by the members and also agreed for Convention on Cooperation in Combating International Terrorism, Transnational Organised Crime and Illicit Drug Trafficking (2009).
- ▶ **In the context of India:** The establishment of BIMSTEC, is an opportunity, besides the Association of Southeast Asian Nations (ASEAN), to engage with Southeast Asia. The scope for direct connectivity with Southeast Asia via Northeast India and Myanmar, counter-terrorism and anti-insurgency cooperation with Myanmar and other members, potential access to alternative energy resources in Myanmar as well as economic opportunities available in the ASEAN region has renewed the interest of India. BIMSTEC, unlike ASEAN and SAARC, is not mired in political tensions. Pakistan is not the member of this grouping, hence prospects are high. It would help materialise the dream of India for development of NE Region through better and effective co-operation with South East Asian Countries.

- ▶ **In the context of other member countries:** Besides India, other members too considered it as an important mechanism to achieve their national goals and regional aspirations.
- ▶ Myanmar's junta government, by becoming the member of regional and sub-regional groupings like ASEAN and BIMSTEC provided its military rulers an opportunity to gain some sort of recognition among the regional stakeholders.
- ▶ Thailand sees it as an opportunity to enhance its trade and connectivity with the South Asian countries under the ambit of its 'Look West' policy and it could complement with India's 'Act East.'
- ▶ The ongoing India-Myanmar-Thailand Trilateral Highway and the India-Myanmar Kaladan Multimodal Transit Transport Project are expected to further augment connectivity and economic cooperation in the sub-region and beyond.
- ▶ Countries like Sri Lanka considered BIMSTEC as an opportunity to engage with the economically booming Southeast Asian countries, especially after several failed attempts to join ASEAN in the decade prior to the establishment of BIMSTEC. With India and Thailand as its important economic partners, Sri Lanka is looking forward to the implementation of BIMSTEC Free Trade Agreement and BIMSTEC Motor Vehicles Agreement.
- ▶ BIMSTEC could be the game changer for the land-locked countries like Nepal and Bhutan by enhancing their connectivity with the rest of the region.

## Challenges

In today's context, the possibility of enhancing physical, digital and people-to-people connectivity in the sub-region is huge. Similarly, the potential to tap the vast energy resources and scope for intra-regional trade and investment too is enormous. But the bilateral tensions come in the way. The so-called sluggishness in BIMSTEC last two decades is attributed to many factors.

- ▶ India, the largest member of the grouping, has often been criticised for not providing a strong leadership to BIMSTEC.
- ▶ Both Thailand and Myanmar are criticised for having ignored BIMSTEC in favour of ASEAN.
- ▶ Absence of a permanent secretariat for a long time and lack of commitment to invest in several priority areas as one of the key institutional factors holding the BIMSTEC back.
- ▶ The 'noodle bowl effect' of regionalism too was at work as formation of another sub-regional initiative, the Bangladesh-China-India-Myanmar (BCIM) Forum, with the proactive membership of China, created more doubts about the exclusive potential of BIMSTEC.

## Recent initiatives to make it an active entity

- ▶ India has been clearly signalling its revived interest in BIMSTEC in her new 'Act East policy.' India is already the lead country for four priority sectors, namely, transportation and communication, environment and disaster management, tourism, and counter-terrorism and trans-national crime. Within few months of the Goa Summit, India hosted the first meeting of the BIMSTEC National Security Chiefs in New Delhi in March 2017. The Meeting primarily focused on combating terrorism in the region.
- ▶ BIMSTEC is now trying to sign a Convention on Mutual Legal Assistance in Criminal Matters.

- ▶ India hosting a working group meeting to finalise the BIMSTEC Motor Vehicles Agreement, finalisation of a Memorandum of Understanding (MoU) on Grid Interconnection to facilitate electricity trade in the sub-region, and a meeting of BIMSTEC Trade Negotiating Committee to fast-track the process of trade facilitation in the region.
- ▶ Apart from India, other member states too appear to be showing interest in strengthening BIMSTEC. Other countries, too describe BIMSTEC as a 'complimentary organisation' which can support the people in the region.
- ▶ In terms of connectivity, BIMSTEC has at least three major projects that, when finished, could transform the movement of goods and vehicles through the countries in the grouping.
  - Kaladan Multimodal project envisages connecting Kolkata to Sittwe port in Myanmar, and then Mizoram by river and road.
  - Asian Trilateral Highway will run from Moreh in Manipur to Mae Sot in Thailand via Myanmar and represents a significant step in establishing connectivity between India and Southeast Asian countries.
  - Bangladesh, Bhutan, India and Nepal (BBIN) have signed a pact for the movement of goods and vehicles among them. The pact, which was signed last year, is awaiting internal clearances of some members.

## Conclusion

BIMSTEC has the potential to become the enabler of regional cooperation. The only thing needed is to evolve BIMSTEC as an organisation that works through a bottom-up rather than a top-down approach. Also, the organisation needs to focus on fewer priority areas for purpose of better implementation. It needs to undertake projects that are economically feasible and result-driven. This would add to the credibility of BIMSTEC.

Finally, since the BIMSTEC region is notable for its diversity, the member states need to build on the regional synergies by following people-centric approach and work towards utilising the available resources in the most optimal manner. This would help build a stronger and a more dynamic BIMSTEC.

## SOCIAL ISSUE

# Gender Budgeting: Critical Analysis


**Context**

*Women constitute around half of the world population. All measures across the globe taken towards development, poverty alleviation and improvement of social indicators like health, education and gender equality are worthless unless policies are implemented specifically for women and girls. It goes without saying that unless the quality of life of this half of the population improves, we cannot develop as humanity. Countries across the globe are becoming conscious of this fact and developing policies and programmes to address disparities between men and women by inculcating concept of gender budgeting in the system. However, only following of gender budgeting cannot lead to women empowerment; time-bound goals are equally needed for female school enrolment, gender-based violence, and health.*

## What is Gender Budgeting?

Gender Budgeting is a powerful tool for achieving gender mainstreaming so as to ensure that benefits of development reach women as much as men. It is not an accounting exercise but an ongoing process of keeping a gender perspective in policy formulation, its implementation and review. Gender Budgeting entails dissection of the Government budgets to establish its gender differential impacts and to ensure that gender commitments are translated in to budgetary commitments.

The rationale for gender budgeting arises from recognition of the fact that national budgets impact men and women differently through the pattern of resource allocation.

Gender Budgeting in its simplest connotation is 'Gender Analysis' of the budget aimed at examining the budgetary allocation through a gender lens.

## Why do we need Gender Budgeting?

- ▶ India has low level of female labour force participation- women coming forward only during economic distress.
- ▶ Gender disparity- in terms of economic freedom, financial rights, freedom to work and legal status.
- ▶ Social customs also bind women to achieve greater heights.
- ▶ Access to public goods is not readily available to women- for eg. safe streets, clean drinking water in rural areas, sanitation.



## Gender Budgeting in India

- ▶ Gender Budgeting (GB) was introduced in Budget 2005-06.
- ▶ Composition and functions of the Gender Budgeting Cells (GBCs) in all departments was another big milestone for its success.
- ▶ As of now, 57 Central Ministries /Departments have set up GBCs.
- ▶ Another important progress made in the Gender Budgeting system is inclusion of a column on gender impact in the Expenditure Finance Committee (EFC) document for inclusion of women's concerns at the planning stage and inclusion of a gender perspective in the Outcome Budget Process.
- ▶ The magnitude of Gender Budget as reflected in the GB Statement shows allocations made for women by different Ministries/Departments has increased from Rs.14,378.68 crores in 2005-06 to Rs.90,624.76 crores in 2016-17.
- ▶ The GB funds two types of government schemes, First, schemes in which 100% provision is for women. Second, schemes where the allocations for women constitute at least 30% of the provision.
- ▶ The Nirbhaya Fund has seen 9 fold jump to 28.9 crore despite underutilisation of previous year funds.
- ▶ Under MNREGA 55% of women are now benefitting from this scheme. It has empowered women in real sense.
- ▶ Mahila Shakti Kendra are proposed in Budget 2017.
- ▶ An IMF research paper shows the impacts on states which have accepted gender budgeting, in regard of gender equality:
  - Greater gender equality with respect to enrollment in schools. More girls are enrolling with increase in awareness.
  - Spending on infrastructure has also increased, for eg. women in BPL categories given free LPG for better health prospects.
  - Providing women with safe toilets in school especially in villages, giving free cycles for easy commutation (Bihar), providing them with drinking water facilities are some steps in this direction.

## Components of Gender Budget

Gender Budgeting in India follows the following measures in accounting gender specific programmes:

- ▶ Specifically targeted expenditure to women and girls (100% provision is for women).
- ▶ Pro-women allocations, which are the composite expenditure schemes with a significant women's component (at least 30% of the provision).
- ▶ Residual public expenditures that have gender-differential impacts.

## Issues to be addressed

- ▶ Many of the earlier gender budget initiatives focused primarily on the expenditure side rather than the revenue side of government budgets.
- ▶ Total magnitude of Gender budgeting is very low.
- ▶ Adequate data is unavailable.
- ▶ Many misleading and patriarchal assumptions limit the scope of Gender Budgeting.

- ▶ Sectors such as Water Supply, Sanitation, and Food & Public Distribution still remain outside the purview of the GB Statement.
- ▶ Large schemes - BRGF and JNNURM do not figure yet in the Gender Budgeting Statement.

#### What can we learn from Gender Budgeting Around the world?

- ▶ **Participatory budgeting:** South Africa's Women's Budget Initiative involves NGOs, parliamentarians, and a wide range of researchers and advisors.
- ▶ **Specific targeting of areas:** Gender budget initiatives in Tanzania(1997) and Uganda(1999) examine the impacts of structural adjustment programs in these countries and specifically focus on education and health.
- ▶ **Compensatory allowance to child care giver:** UK "*From the wallet to the purse*". The allowance would be paid to the main carer — usually a woman — rather than to the main earner — usually a man. The group supporting this used the slogan "*From the wallet to the purse*" (men carry wallets while women carry purses) to argue that giving money to women was more efficient and in-line with government policy on reducing child poverty.

#### What needs to be done to make Gender Budgeting more effective?

- ▶ **Impact assessment:** While formulating any programs or policies, implications on women should be assessed.
- ▶ **Data analysis:** Effective Gender Budgeting requires data. Hence, it is necessary to put mechanisms in place for mandatory collection of sex disaggregated data.
- ▶ **Gender auditing:** Incorporating gender perspective in expenditure and performance audit by CAG can prove a crucial steps in achieving the objective of gender budgeting.
- ▶ **UBI Concept:** Universal basic income can have sweeping impacts in gender budgeting exercise.
- ▶ **Regulation and monitoring:** Efficient monitoring, evaluation and feedback mechanisms to ensure implementation.

#### Conclusion

India is a unique example of segregating the Gender Budget Statement from the annual expenditure budget and institutionalizing it within the Ministry of Finance by making it mandatory part of annual budget. However, the trends are noteworthy as it shows the quantum of funds which can be a yardstick to measure the political commitment of the state.

However, the work argues to focus on the broader framework because that would show the actual commitment of the state. Vacuum analysis would provide wrong inputs, thus, there is need to see gender budgeting is in consonance to the entire budgetary allocations and concerned ministries allocation.

Gender budgeting is merely an initiative whose success depends on the political will and mentality of the patriarchal society of India, example of which comes from the fact that many states have not yet adopted the gender budgeting. Hence, the society and the leaders of nation have to work together to decrease the gender inequality and make the most of this tool.

## ECONOMIC ISSUE

# Exit Issues and Insolvency Resolution Process

Context

*The following developments have happened with respect to insolvency and bankruptcy procedure:*

*Insolvency and Bankruptcy Board of India (IBBI) has notified the Fast Track Insolvency Resolution Process for Corporate Persons Regulations. These regulations provide the process from initiation of insolvency resolution of eligible corporate debtors till its conclusion and National e-Governance Services Ltd. (NeSL) became India's first Information Utility under Insolvency & Bankruptcy Code.*

*Hereby, analysing the issues related to Exit of business in India and Insolvency Resolution Process.*

## The Chakravayuh problem

The Economic Survey 2015-16 invoked the legend of the Charkravayuha from the Mahabharata describing the ability to enter but not exit, with seriously adverse consequences.

According to it, the Indian Economy has made great strides in removing barriers to entry for firms but less in relation to exit.

Thus, over the course of six decades, the Indian economy has moved from 'socialism with limited entry to "Marketism" without exit'.

According to economic survey 2015-16, due to difficulty in exit, disproportionately large share of inefficient firms continue to run with very low productivity.

Impeded exit has substantial fiscal, economic, and political costs.

- a) **Fiscal Costs:** Inefficient firms often require government support in the form of explicit subsidies (for example bailouts) or implicit subsidies (tariffs, loans from state banks).
- b) **Economic Costs: Misallocation of resources:** Economic losses result from resources and factors of production not being employed in their most productive uses. In a capital scarce country such as India, misallocation of resources can have significant costs.
  - ▶ **Stressed assets:** It also leads to stressed assets on corporate and bank balance sheets. The consequence is a reduced flow of new investment, dampening medium term growth.

- c) **Political costs: Difficult to initiate reforms:** Government support to “sick” firms can give the impression that government favours large corporate. Politically, this limits the ability of government to undertake reforms that will benefit the economy but might be seen as further benefitting businesses.
- ▶ **Questions the regulatory mechanism:** Similarly, if wilful defaulters cannot be dealt with appropriately, the legitimacy of regulating institutions can be called into question.

### What are the reasons for exit problem in India? (Three I's)

According to economic survey 2015-16, in India, the exit problem arises because of three types of reasons, what might be called the three I's: *Interests, Institutions, and Ideas/ Ideology*.

- a) **Interests (Power of Vested Interests:** Liberalization is difficult because producers are more influential than consumers.
- ▶ It is because these producers have more voice and are backed by financial power.
- b) **Institutions:** Another reason for impeded exit is a combination of both weak and strong institutions.
- ▶ **Weak institutions:** Our weak legal procedures increase the time and financial costs of exit.
  - ▶ **Strong institutions:** Strong but inflexible institutions are unable to make risky decisions when departures from strict principles may be necessary for the economy. *Our bureaucrats exercise abundant caution in decision-making and hence the status quo (In the case of public sector banks, it is well-known that senior managers are often reluctant to take decisions to write down loans for fear of being seen as favouring corporate interests and hence susceptible to scrutiny).*
- c) **Ideas / Ideology:** The founding ideology of state-led development and socialism makes it difficult to phase out entitlements even as those intended for the poor, end up accruing to the relatively better off.
- ▶ A good illustration arises in relation to all the interventions in agriculture and all the anti-poverty programs. The objective in all these cases is laudable. But once the policies and programs have been set in place, they are very difficult to reverse.

### How might the exit problem be addressed?

The Economic Survey 2015-16 suggests five possible ways to address this problem.

- ▶ **Avoid exit through liberal entry:** The first is promoting competition via private sector entry rather than change of ownership from public to private.
- ▶ **Direct policy action:** Secondly, direct policy action through better laws like the Insolvency and Bankruptcy Code 2015 will expedite exit. Also, institutions need to be made stronger but flexible by empowering bureaucrats and reducing their vulnerability.
- ▶ **Technology and the JAM solution:** Thirdly, increase the use of technology as it has two broad benefits:
  - First, it brings down human discretion and the layers of intermediaries.
  - Second, it breaks the old ways of doing business.

- ▶ **Transparency:** The fourth is increasing transparency. E.g. in relation to agriculture, government should highlight the social and environmental costs of over-use of fertilizer, water and power.
- ▶ **Exit as an opportunity:** Finally, showcase exit as an opportunity towards a newer and better tomorrow. E.g., generally employees of a public sector firm oppose its privatisation. In these cases, resources earned from privatization could be earmarked for employee compensation and retraining.

- ▶ **Insolvency:** Insolvency is essentially the state of being that prompts one to file for bankruptcy. An entity – a person, family, or company – becomes insolvent when it cannot pay its lenders back on time.
- ▶ **Bankruptcy:** Bankruptcy is a legal declaration of one's inability to pay off debts.
- ▶ **Liquidation:** Liquidation is the process of winding up a corporation or incorporated entity.

Thus, to solve the issues Government has notified (Fast Track Insolvency Resolution Process for Corporate Persons) Regulations, 2017.

The Insolvency and Bankruptcy Board of India (IBBI) has notified the Insolvency and Bankruptcy Board of India (Fast Track Insolvency Resolution Process for Corporate Persons) Regulations, 2017.

The Ministry of Corporate Affairs has notified the relevant sections 55 to 58 of the Insolvency and Bankruptcy Code, 2016 pertaining to the Fast Track Process and also notified that fast track process shall apply to the following categories of corporate debtors:

- ▶ A small company, as defined under clause (85) of section 2 of the Companies Act, 2013; or
- ▶ A Startup (other than the partnership firm), as defined in the notification dated 23<sup>rd</sup> May, 2017 of the Ministry of Commerce and Industry; or
- ▶ An unlisted company with total assets, as reported in the financial statement of the immediately preceding financial year, not exceeding Rs.1 crore.

The new regulations provide the process from initiation of insolvency resolution of eligible corporate debtors till its conclusion with approval of the resolution plan by the Adjudicating Authority.

The process in these cases shall be completed within a period of 90 days, as against 180 days in other cases. However, the Adjudicating Authority may, if satisfied, extend the period of 90 days by a further period up to 45 days for completion of the process.

A creditor or a corporate debtor may file an application, along with the proof of existence of default, to the Adjudicating Authority for initiating fast track resolution process. After the application is admitted and the Interim Resolution Professional (IRP) is appointed, if the IRP is of the opinion, based on the records of corporate debtor, that the fast track process is not applicable to the corporate debtor, he shall file an application before expiry of 21 days from the date of his appointment, to Adjudicating Authority to pass an order to convert the fast track process into a normal corporate insolvency resolution process.

## PERSONALITY

# Role of P.C. Mahalanobis in Nation Building



*125th birth anniversary of Professor P.C. Mahalanobis was celebrated by Indian government on 28 June, 2017. He was an Indian scientist and applied statistician.*

### Contribution to Statistics

He is referred to as the chief architect of Indian statistical system as well as father of statistical science in India. Before him, Statistical science was a virgin field and practically unknown in India before the twenties.

- ▶ **Builder of the new statistical architecture for the country**
  - **Indian Statistical Institute:** The Indian Statistical Institute (ISI) was set up by Prof. Mahalanobis in 1931 in Kolkata. Later on it was registered as a non-profit society under the Societies Registration Act XXI of 1860.
    - The Institute was declared an “Institute of National Importance” and was made an autonomous body of Ministry of Statistics & Programme Implementation, through an act of Parliament in 1959.
    - ISI celebrates 29th June as the “Workers Day”.
  - **Other statistical institutes:** Post-independence, Mahalanobis, as the honorary statistical adviser to the cabinet, had a greater contribution in building a new statistical architecture for the country. He helped establish the **Central Statistical Organisation (CSO)**, the **National Sample Survey (NSS)** and the **Annual Survey of Industries (ASI)**, all of which were run from ISI in the early years.
- ▶ **Mahalanobis distance**
  - He is best remembered for the Mahalanobis distance, a statistical measure introduced by him in 1936.

#### Mahalanobis Distance

It is a measure of the distance between a point P and a distribution D.

It is a multi-dimensional generalization of the idea of measuring how many standard deviations away P is from the mean of D.

This distance is zero if P is at the mean of D, and grows as P moves away from the mean: along each principal component axis, it measures the number of standard deviations from P to the mean of D.

**Applications**

- ▶ Mahalanobis distance is widely used in cluster analysis and classification techniques.
- ▶ Mahalanobis distance and leverage are often used to detect outliers, especially in the development of linear regression models.

- ▶ **Large-scale sample Surveys:**

- ▶ His most important contributions are related to large-scale sample surveys.
- ▶ He introduced three key concepts to the theory and practice of sample surveys which are:
  - Pilot surveys,
  - Optimum survey design, and
  - Inter Penetrating Network of sub-samples technique (IPNS).
- ▶ **Sampling:** He also advocated the usefulness of sampling methods. He was elected Chairman of the United Nations Sub-Commission on Statistical Sampling in 1947, and held this post until 1951.
- ▶ **National Statistical Day:** Government of India in 2007, designated 29th June the birth anniversary of Prof. Mahalanobis as the “Statistics Day” in the category of Special Days to be celebrated every year at the National level.

**Contribution to Agriculture (Applied Statistics)**

- ▶ All or nearly all the statistical work done in India during the 1920s and until the mid-1930s was done single-handedly by Mahalanobis.
- ▶ The early statistical studies included analyses of rainfall data, data on soil conditions, etc. Some of the findings of these early studies were of great impact in the control of floods and development of agriculture.
- ▶ He introduced a method for estimating crop yields which involved statisticians sampling in the fields by cutting crops in a circle of diameter 4 feet.

**Contribution to Planning**

- ▶ He was one of the members of the first Planning commission of free India.
- ▶ **Mahalanobis model:** The Mahalanobis model, was employed in the Second Five Year Plan, which worked towards the rapid industrialisation of India.
  - ▶ The essence of the model was a shift in the pattern of industrial investment towards building up a domestic consumption goods sector.
  - ▶ Thus, the strategy suggests in order to reach a high standard in consumption, investment in building a capacity in the production of capital goods is firstly needed. A high enough capacity in the capital goods sector in the long-run expands the capacity in the production of consumer goods.

**Major Honors Received**

- ▶ Officer of the Order of the British Empire (Civil Division).
- ▶ He was the president of Indian Science Congress of 1950.
- ▶ Padma Vibhushan (1968)

**Profiloscope**

- ▶ Mahalanobis also took an interest in physical anthropology and in the accurate measurement of skull measurements for which he developed an instrument that he called the “profiloscope”.

## SOCIAL ISSUE

# India Ageing Report 2017



*UNFPA India has released "Caring for our elders: Early Responses India Ageing Report 2017", The India Ageing report takes stock of the situation of the elderly in India, flags some key concerns and maps policy and programmatic responses by the Government and civil society.*

*Thus hereby, providing the gist of the Report and analysis related to the issues concerning old age in India.*

## Defining Ageing

- ▶ In general, ageing is defined in terms of chronological age with a cut off age of 60 or 65 years.
- ▶ This definition is partly due to the fact that retirement age is also similar to this cut off age.

## Ageing Scenario in India

- ▶ **Present status (2011):** The population of older people (60 years and above) in India has increased from 7.5% (77 million) in 2001 to 8.6% (104 million) in 2011.
- ▶ **Future prediction (2050):** it is predicted that the population of senior citizens in India could be around 19% (300 million) of the total population by the year 2050.

## Reason for increasing Ageing population

Population ageing is an inevitable and irreversible demographic royalty associated with:

- ▶ **Longer life expectancy:** The rapid advancements in medical sciences and increased access to better nutrition & healthcare services have helped in achieving longer life expectancy.
- ▶ **Decline in fertility:** This coupled with reduced birth rate have led to an increase in the population of senior citizens in India.

## Differentials across States

India has significant inter-regional and inter-state demographic diversity based on the stage of demographic transition, variations in the onset and pace of fertility transition. Consequently, there are considerable variations in the age structure of the population, including the ageing experience. For instance, the southern states are the front runners in population ageing along with Himachal Pradesh, Maharashtra, Odisha and Punjab.

The central and northern states such as Uttar Pradesh, Rajasthan, Madhya Pradesh, Bihar, Jharkhand, Chhattisgarh and Uttarakhand have much lower proportions of aged population.

Based on 2011 Census, the overall old-age dependency ratio shows that there are over 14 elderly per 100 working age population, with significant variations across states.



In Kerala, Goa, Punjab, Himachal Pradesh, Tamil Nadu, Maharashtra, Odisha and Andhra Pradesh, the oldage dependency ratio is higher than 15 (nearly 20 percent in Kerala) whereas it is less than 10 in Arunachal Pradesh, Meghalaya, Nagaland and Chandigarh. Higher old-age dependency reflects higher level of demand for care from immediate family.

### Challenges of an Ageing Population

Population ageing in any country creates its own challenges and opportunities as well. Following aspects of ageing are particularly relevant for India.

#### ► **Feminization of Ageing**

- The sex ratio of the elderly has increased from 938 women to 1,000 men in 1971 to 1,033 in 2011 and is projected to increase to 1,060 by 2026 (with some variations across states) given the insignificant decline in mortality among males particularly during adult and older years.
- Frequent outcome of feminization of ageing is the discrimination and neglect experienced by women as they age, often exacerbated by widowhood and complete dependence on others.

#### ► **More 80-plus Women**

- Projections indicate that during 2000–2050, the overall population of India will grow by 56 percent while the population 60-plus will grow by 326 percent. During the same period, the population 80-plus will grow 700 percent with a predominance of widowed and highly dependent very old women.
- The number of older women compared to the number of older men will progressively increase with advancing ages from 60 through 80 years. The special needs of such older women would need significant focus of policy and programmes.

#### ► **Ruralization of the Elderly**

- According to 2011 Census, 71 percent of the elderly live in rural India. In all the states, except the two smaller states, Goa and Mizoram, a higher proportion of the elderly lives in rural areas than in urban areas. Many rural areas are still remote with poor road and transport access.
- Income insecurity, lack of adequate access to quality health care and isolation are more acute for the rural elderly than their urban counterparts. It is also noted that poorer states such as Odisha, Bihar and Uttar Pradesh have a larger percentage of the rural elderly.

#### ► **Migration and its Impact on the Elderly**

- Migration of younger working age persons from rural areas can have both positive and negative impact on the elderly. Living alone or with only the spouse is usually discussed in terms of social isolation, poverty and distress. However, older people prefer to live in their own homes and community, which is why ageing in place is often a preferred option.
- Further, this puts some funds in the hands of older persons at a time when they need physical support for health care and to manage household chores. It is also recognized that new technologies are helping the rural elderly stay in touch with their children who can even reach home more easily than in the past.

### Policy Response to Ageing in India

- The Indian government's commitment to population ageing concerns is evident in two important ways:

- Being a signatory to all the global conferences, initiatives on ageing as well as the Regional Plans of Action; and
  - Formulation of the National Policy on Older Persons (NPOP) in 1999, well ahead of Madrid International Plan of Action on Ageing (MIPAA), the United Nation (UN) sponsored International Plan of Action.
- ▶ The government also recognized that some of the key concerns of our senior citizens could be best addressed only in partnership with non-governmental organizations (NGOs).
  - ▶ India's association with incremental global understanding of ageing issues has been significant—starting from the 1982 Vienna International Plan of Action on Ageing, followed in 1991 by the development of 18 principles for older persons (**grouped under five quality-of-life attributes: independence, participation, care, self-fulfilment and dignity**) and then the Second World Assembly on Ageing held in Madrid in 2002. As mentioned above, the NPOP formulation in India preceded MIPAA by about three years and has in some ways influenced the Madrid Action Plan.

#### **India and Sustainable Development Goals (SDGs) on Ageing:**

- ▶ The post-2015 development goals called the Sustainable Development Goals (SDGs) in general and SDG-3 in particular has given attention to ageing.
- ▶ In the most recent 2016 UN General Assembly, India further ratified its commitment to SDGs and reported streamlining them into national development indicators.

#### **Indian policy response to ageing has also gained from the following**

- ▶ Work of the World Health Organization (WHO) on Active Ageing,
- ▶ The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) resolution of January 2010 on older women,
- ▶ The United Nations Population Fund (UNFPA) work on social-economic implications of ageing through the initiative of building a Knowledge-base on Population Ageing in India (BKPAI).
- ▶ The work of the International Labour Organisation (ILO) on income security and social pensions as well as the large data collection efforts under Longitudinal Ageing Study in India (LASI) and Study of Global Ageing and Adult Health (SAGE).

#### **Way Ahead: Healthy Aging**

Everyone has a part to play for the wellbeing of the elderly including the government, civil society and families to ensure that:

- ▶ They are valued.
- ▶ They become active members of the society.

Both civil society and government of India and state governments need to respond to changing demographic profiles.

- ▶ **Role of Families:** families should provide the financial as well as psychological resources to elderly. Families should prepare adequately to cushion their elderly family members against fear of loneliness, deprivation etc.
- ▶ **Role of governments:** Governments would need to invest more in schemes and activities for the welfare of senior citizens.

## ECONOMIC ISSUE

# China and MSCI Index



- ▶ *In June 2017, Morgan Stanley Capital International (MSCI), said it would add China's local currency shares, referred to as China 'A' shares, to its benchmark emerging markets index.*
- ▶ *MSCI will add 222 China A shares (shares of large enterprises) starting next year. The stocks, which would represent a weightage of only 0.73% in the benchmark, will be included via a two-phase process in May and August next year.*

## What is Morgan Stanley Capital International (MSCI)?

- ▶ Morgan Stanley Capital International (MSCI) is the world's biggest index compiler.
- ▶ An MSCI Index is a measurement of stock market performance in a particular area. Like other indexes, such as the Dow Jones Averages or the S&P 500, it tracks the performance of the stocks included in the index.
- ▶ MSCI Indexes are used as the base for exchanged traded funds.

## How it Works?

Each MSCI equity index selects stocks that are quickly traded and have high liquidity. They must have active investor participation and are without owner restrictions. The composition of the index seeks to measure the underlying equity market as accurately yet efficiently as possible.

In other words, managers want to include as many stocks as needed to represent the equity market, without adding so many that it makes it difficult for ETFs and mutual funds to mimic them.

Each Index sums up the total value of all stocks' market capitalization. That's the stock price multiplied by the number of outstanding shares.

Each index is reviewed quarterly and rebalanced twice a year.

That's when its manager adds or subtracts stocks to make sure the index still accurately reflects the composition of the underlying equity market it measures. For that reason, these indexes have the power to change the market. When this happens, all the ETFs and mutual funds that track the index must buy and sell the same stocks. Stocks that are added to the index usually find their share prices rising while the opposite happens to stocks that are dropped from an Index.

## What is the Importance of MSCI indices?

- ▶ More than \$10 trillion in assets are benchmarked to its products, with emerging markets alone accounting for \$2 trillion.

- ▶ The indices are closely tracked by global investors.
- ▶ Inclusion in MSCI Inc.'s stock indices opens up investment interest from foreign investors in a particular country and brings a stamp of financial credibility.

#### About China shares in MSCI Index

- ▶ Mainland China is an area under the direct jurisdiction of China and excludes special administrative regions of Hong Kong and Macau.
- ▶ **Why haven't its shares been featured in the MSCI index so far?**
  - In the past, Chinese mainland markets were not open to foreign investors.
  - Thus, foreign investors had access to non-mainland shares — those that are traded in the markets of Hong Kong and Macau.
  - That's why non-mainland shares have been part of the MSCI Emerging Markets Index. In the last three years, MSCI kept on rejecting Chinese requests.
- ▶ **What has changed now?** China has been working to ease restrictions on foreign investors. This has influenced MSCI's decision now.

#### How will this affect India?

- ▶ According to the experts, only minimal impact on the Indian market in terms of outflows as Chinese shares represent a weightage of only 0.73% in the benchmark.
- ▶ However, if MSCI add more China A shares (provided China opens up its equity market further), this will increase the weightage of China in the index and more money could flow out of India.

## POLITICAL ISSUE

# Executive Crisis in Puducherry



- ▶ *In June 2017, Legislators of ruling and opposition parties in Puducherry criticised Lt. Governor Kiran Bedi for her style of functioning.*
- ▶ *In this background she reiterated her position that notwithstanding the powers of the Chief Minister and Cabinet, it was the L-G who had the final word on a range of decisions under the relevant Act.*
- ▶ *In January 2017, she claimed that the powers of a Lieutenant Governor of a Union Territory are different from that of a state, that she could choose to overlook the Legislature “depending on how compelling are the circumstances”, and that she would “correct mistakes in the Budget” for the coming year.*

## Comparison of Powers of Lieutenant Governor’s of Delhi and Puducherry

The powers of the LG of Puducherry are different from the ones of the LG of Delhi, the other UT that has an elected legislature and government.

- ▶ The LG of Delhi has “Executive Functions” that allow him to exercise his powers in matters connected to public order, police and land “in consultation with the Chief Minister, if it is so provided under any order issued by the President under Article 239 of the Constitution”. Simply put, the LG of Delhi enjoys greater powers than the LG of Puducherry.
- ▶ While the LG of Delhi is also guided by the Government of National Capital Territory of Delhi Act, 1991, and the Transaction of Business of the Government of National Capital Territory of Delhi Rules, 1993, the LG of Puducherry is guided mostly by the Government of Union Territories Act, 1963.
- ▶ **Articles 239AA:** Articles 239 and 239AA of the Constitution, as well as the Government of National Capital Territory of Delhi Act, 1991, clearly underline that Delhi is a UT, where the Centre, whose eyes and ears are the LG, has a much more prominent role than in Puducherry.

## Key provisions for Puducherry under the Government of Union Territories Act, 1963

- ▶ The Government of Union Territories Act, 1963 provides for a Legislative Assembly of Pondicherry (as Puducherry was then called), with a Council of Ministers to govern the “Union Territory of Pondicherry”. The same Act says that the UT will be administered by the President of India through an Administrator (LG).
- ▶ **Section 18 of the Act (“Extent of legislative power” of the Assembly):** It states that MLAs “may make laws for the whole or any part of the Union Territory with respect to any of the matters enumerated in the State List or the Concurrent List”.

- ▶ **Section 44 of the Act (deals with the Council of Ministers and its working):** It states that the Council of Ministers headed by a Chief Minister will “aid and advise the Administrator in the exercise of his functions in relation to matters with respect to which the Legislative Assembly of the Union Territory has power to make laws”. But there is a catch. The same clause also allows the LG to “act in his discretion” in the matter of lawmaking, even though the Council of Ministers has the task of aiding and advising him.
- ▶ **Difference of opinion between the LG and his Ministers:** In case of a difference of opinion between the LG and his Ministers on any matter, the Administrator is bound to refer it to the President for a decision and act according to the decision given by the President. However, the Administrator can also claim that the matter is urgent, and take immediate action as he deems necessary.
- ▶ **Section 22 of the Act:** It states that prior sanction of the Administrator is required for certain legislative proposals. These include Bills or amendments that the Council of Ministers intends to move in the Legislative Assembly, and which deal with the “constitution and organisation of the court of the Judicial Commissioner”, and “jurisdiction and powers of the court of the Judicial Commissioner with respect to any of the matters in the State List or the Concurrent List”.
- ▶ **Section 23 of the Act:** This section makes it obligatory on the part of the UT government to seek the “recommendation” of the LG before moving a Bill or an amendment to provide for “the imposition, abolition, remission, alteration or regulation of any tax”, “the amendment of the law with respect to any financial obligations undertaken or to be undertaken”, and anything that has to do with the Consolidated Fund of the UT. Once the Assembly has passed a Bill, the LG can either grant or withhold his assent; or reserve it for the consideration of the President. He can also send it back to the Assembly for reconsideration.

### Rules of Business of the Government of Pondicherry, 1963 (Rule 47)

These rules explain the manner in which the LG functions vis-à-vis the elected government (Council of Ministers). In this context, it is worthwhile to look into the **Rule 47**.

- ▶ Rule 47 deals with persons serving in the UT government.
- ▶ Under this rule, the Administrator exercises powers regulating the conditions of service of such persons in consultation with the Chief Minister.
- ▶ In case the LG has a difference of opinion with the Chief Minister, he can refer the matter to the central government for the decision of the President.

### Recent issue

The Puducherry assembly has passed a resolution for absolute powers to the elected government led by Chief Minister V. Narayanasamy to check the style of functioning of lieutenant governor. The governor is making field visits, calling meetings of officials at the Raj Nivas, holding meetings through video conferencing and sending communications through social media.

Thus the resolution urged the Centre to bring amendments to the Government of Union Territories Act 1963 so that only the elected government in the UT was vested with full powers on administrative matters so that it could look after the welfare of the people.

**Concluding remark**

- ▶ Under the constitutional scheme, the Delhi Assembly has the power to legislate on all subjects except law and order and land. However, the Puducherry Assembly can legislate on any issue under the Concurrent and State Lists.
- ▶ However, if the law is in conflict with a law passed by Parliament, the law passed by Parliament prevails. But like the AAP government in Delhi, the Congress government in Puducherry too can do little but watch helplessly if the LG appointed by the Centre starts making life difficult for it.

## INTERNATIONAL ISSUE

# EU's Fine on Google



*The right to innovate on a level playing field and the consumer's right to choose are the most important concerns of competition regulators globally, and they have been breached repeatedly in the digital business all over the world.*

*Recently, the European Union has handed Google a record-breaking €2.42 bn fine for abusing its dominance of the search engine market in building its online shopping service, in a dramatic decision that has far-reaching implications for the company.*

*According to the European regulators, Google abused its dominance in the Internet search market by artificially and illegally promoting its own price comparison service in searches. Google denied both its consumers real choice and rival firms the ability to compete on a level playing field.*

*The current article briefs the issue between Google and European Commission, list of EU fines in the past and Google's response to it.*

## Introduction

Google has come up with many innovative products and services that have made a difference to our lives. But Google's strategy for its comparison shopping service is not just about attracting customers by making its product better than those of its rivals.

Recently, the European Commission found that Google abused its dominance in the Internet search market to give itself an unfair advantage in another market comparison shopping services. Google's comparison shopping service disadvantaged the competitors by placing them lower in its search results. It systematically gives Google's own services higher placement and greater visibility, leading to more clicks.

Following a seven-year probe into Google's dominance in searches and smart phones, the commission's decision suggests that the company may need to fundamentally rethink the way it operates. It is also now liable to face civil actions for damages by any person or business affected by its anti-competitive behavior.

## Background

- ▶ In 2006, trouble began for Google when the price comparison website, Foundem, complained that they had vanished from Google.
- ▶ Soon thereafter, Google released Universal Search which melds searches from verticals indexing images, video, shopping and so on and presents the results in a single page. Effectively, it had become the sum total of the internet, and was in a position to leverage monopolistic power.



- ▶ And now, the EU commission has concluded that Google misused its market dominance and denied other companies the right to compete on merits and innovation.

### EU findings

- ▶ Google is the gateway to the internet — more; it is a facsimile of the whole internet. Its dominance is unprecedented, far exceeding then that of Microsoft in the Nineties, when it was prosecuted in the US.
- ▶ From 2008, Google began to implement, initially in the UK and Germany, and then further afield, a fundamental change in strategy to push its comparison shopping service, and break EU law.
- ▶ According to an analysis of around 1.7bn search queries, Google's search algorithm systematically was consistently giving prominent placement to its own comparison shopping service to the detriment of rival services.
- ▶ The placement of Google's product well ahead of its rivals was pivotal to the shopping service's success as, even on a desktop, the 10 highest-ranking generic search results on page one generally receive approximately 95% of all clicks on generic search results. The top result receives about 35% of all the clicks and the trend is exaggerated further for searches on mobile phones.
- ▶ The commission found that Google was dominant in general internet search markets in all 31 countries in the European Economic Area, with a market share of about 90%.
- ▶ As a result of Google's illegal practices, traffic to Google's comparison shopping service increased significantly – for example 45 fold in the UK – while rivals suffered very substantial losses of traffic on a lasting basis.
- ▶ The commission found specific evidence of sudden drops of traffic to certain rival websites of 85% in the UK, up to 92% in Germany and 80% in France. Some competitors have adapted and managed to recover some traffic but never in full.
- ▶ The commission's fine of €2,424,495,000 is said to take into account the “duration and gravity of the infringement”, and is based on Google's revenue from its comparison shopping service in the 13 countries where the illegality occurred.
- ▶ According to the EU Antitrust rules, what Google has done is illegal. It denied other companies the chance to compete on the merits and to innovate. And most importantly, it denied European consumers a genuine choice of services and the full benefits of innovation.

#### European Commission fines: A history

- ▶ **Apple, €13 bn (2016):** The tech company behind the iPhone was ordered to pay a huge sum in back taxes to Ireland after the commission ruled that the company's sweetheart tax deal with the Irish tax authorities amounted to illegal state aid.
- ▶ **MAN, Volvo/Renault, Daimler, Iveco, and DAF, €2.9 bn (2016):** A group of truckmakers were handed a record fine for colluding to fix prices over a 14-year period.
- ▶ **Microsoft, €1.2 bn (2004, 2006, 2008):** Microsoft was found guilty of failing to provide code to allow rivals to hook into its Windows server software at a reasonable price. The company's failure to comply with the commission's findings led to two additional fines in 2006 and 2008 on top of the initial 2004 order to pay €497 m.
- ▶ **Intel, €1.1 bn (2009):** The US chipmaker was ordered to pay a fine of more than €1 bn for anticompetitive practices after being found to have given price discounts to computer manufacturers Acer, Dell, HP, Lenovo and NEC if they bought its chips.

- ▶ **Facebook, €110 m (2017):** The social media giant was fined for providing incorrect or misleading information during the commission's 2014 investigation into Facebook's acquisition of WhatsApp.

### Google Response

- ▶ Google immediately rejected the commission's findings, and signaled its intention to appeal, in an indication of the grueling legal battle to come between the two sides.
- ▶ Google said that when anyone shop online, he wants to find the products quickly and easily. And advertisers want to promote those same products. That's why Google shows shopping ads, connecting our users with thousands of advertisers, large and small, in ways that are useful for both.
- ▶ Google official respectfully disagree with the conclusions announced by the EU Commission and will review the commission's decision in detail as they consider an appeal, and look forward to continuing to make their case.
- ▶ Alphabet unit Google, the world's most popular internet search engine, is drawing on the expertise of at least five top law firms in Brussels to help it deal with its EU regulatory troubles.

### Conclusion

The fault lines between tech giants, which often act as supra-national entities, and national and multinational governmental bodies, are changing fast as the relationship between citizens, their governments, media and technology is transformed. In the years to come we can expect new lines to be drawn as technological frontiers are crossed. While technology is constantly changing, valuing choice, competition and consumer welfare never gets outdated or obsolete.

## ENVIRONMENTAL ISSUE

# Issue of Land Degradation



*Land is a vital resource enabling the production of food, the preservation of biodiversity, facilitating the natural management of water systems and acting as a carbon store.*

*However, land degradation has become a main issue due to anthropological factors.*

*There is a need for sustainable land and resource management for livelihood generation at community level for making the local lands healthier and productive for providing a better homeland and a better future to its inhabitants.*

*However, firstly understanding the concept of land degradation and issues associated with it are needed for its sustainable development.*

## Introduction

Land degradation is a process in which the value of the biophysical environment is affected by a combination of human-induced processes acting upon the land. It is viewed as any change or disturbance to the land perceived to be deleterious or undesirable. Natural hazards are excluded as a cause; however human activities can indirectly affect phenomena such as floods and bush fires.

This is considered to be an important topic of the 21st century due to the implications land degradation has upon agronomic productivity, the environment, and its effects on food security. It is estimated that up to 40% of the world's agricultural land is seriously degraded.

## Causes of Land degradation

- ▶ The natural causes includes earthquakes, tsunamis, droughts, avalanche, landslides and mud flow, volcanic eruptions, flood, tornado, and wild fire.
- ▶ Human induced causes include deforestation, overgrazing by livestock, wrong irrigation practices, urban sprawl and commercial development, pollution from industries, quarrying and mining activities.

*Some specific causes are:*

- ▶ **Soil erosion:** It is wearing away of the land surface by physical forces such as rainfall, flowing water, wind, ice, temperature change, gravity or other natural or anthropogenic agents.
- ▶ **Soil contamination:** It includes contamination by heavy metals, acidification, nutrient surplus (eutrophication), etc.
- ▶ **Soil salinisation:** The salts which accumulate include chlorides, sulphates, carbonates and bicarbonates of sodium, potassium, magnesium and calcium.

- ▶ **Soil sealing:** The covering of the soil surface with impervious materials as a result of urban development and infrastructure construction.
- ▶ **Overgrazing:** Overgrazing occurs when plants are exposed to intensive grazing for extended periods of time, or without sufficient recovery periods.
- ▶ **Acidification of Soil:** Acid soils are toxic to plants because they can release toxic levels of aluminium and other mineral elements.
- ▶ **Mining and quarrying activities:** Excavation process alter the structure of the land, stacking of top soil, loss of soil due to dumping of the mine wastes.
- ▶ **Improper crop rotations:** It decreases fertility of soil.

### Impacts of land degradation

- ▶ **Economic Impacts:**
  - Crop varieties and agricultural practices are not suitable to tackle impact of climate change, which might further affect agricultural yields.
  - Decrease in pastures for cattle leading to their decreasing health and lower quality of animal produce like milk, meat etc.
  - Reduction in crop and pasture productivity and fuel-wood and non-timber forest products, which are closely linked to poverty and food insecurity.
  - Loss of fodder and forage production, decline in production of timber.
  - When the land is lost due to wind erosion or water erosion, apart from physical, chemical and biological degradation, there is loss of employment opportunities. This leads to migration towards cities and towns, causing social problems related to unplanned urbanisation.
  - Year after year, huge acres of land is lost due to soil erosion, contamination and pollution. Agricultural land is severely diminished in quality because of erosion and the use of chemical fertilizers, which prevent land from regenerating. The decline in soil quality as a result of agricultural chemical fertilizers also further leads to water and land pollution thereby lowering the land's worth.
  - Because soil degradation contributes to land degradation, it also means that it creates a significant loss of arable land. Most of the crop production practices result in the top soil loss and the damage of soil's natural composition that make agriculture possible.
- ▶ **Social Impacts:**
  - An estimated 50 million people may be forced to seek new homes and livelihoods within 10 years due to land degradation, a study has estimated.
  - Stress on Non Timber Forest Products like honey, fruits etc. may cause food insecurity among forest dwellers and tribals.
  - Decreased productivity is compelling farmers to bring more area under agriculture causing higher expenditures and lowering incomes to be spent on food.
  - Land degradation leading to lower productivity in the agriculture. Farmers requiring extra money for agriculture and for their sustenance getting trapped in the vicious cycle of indebtedness. Because of the stress farmers are committing suicides, for e.g. in the state of Maharashtra.
  - Lack of any other source of income leading to social evils like alcoholism, dowry, psychological disorders, criminal activities and so on.

► **Environmental Impacts:**

- The researchers found that land cover changes since year 2000 are responsible for half to 75 percent of the lost ecosystem services value.
- Drought and aridity are problems highly influenced and amplified by soil degradation. The contributing factors to soil quality decline such as overgrazing, poor tillage methods, and deforestation are also the leading causes of desertification characterized by droughts and arid conditions. On the same context, soil degradation may also bring about loss of biodiversity.
- Land is commonly altered from its natural landscape when it rids its physical composition due to soil degradation. For this reason, the transformed land is unable to soak up water, making flooding more frequent. In other words, soil degradation takes away the soil's natural capability of holding water thus contributing to more and more cases of flooding.
- Most of the soil eroded from the land together with the chemical fertilizers and pesticides utilized in agricultural fields are discharged into waterways and streams. With time, the sedimentation process can clog waterways, resulting in water scarcity.
- The agricultural fertilizers and pesticides also damage marine and freshwater ecosystems and limits the domestic uses of the water for the populations that depend on them for survival.
- Salinity is an important land degradation problem, for example in Punjab.

**Measures taken by the Government**

- **Target for land degradation neutrality (LND):** Environment Minister on eve of World Day to Combat Desertification emphasised that the NDA Government is committed to achieve **Land Degradation Neutrality by the year 2030**.
- **Steps being taken:** Although currently there is no specific policy or legislative framework for combating desertification, but the government is addressing this problem through various measures:
  - In June 2017, environment minister stated that the government is working on a new National Action Programme (NAP) which will be finalised soon.
  - **Soil Health Card Scheme** has been launched by the Government to help farmers improve productivity through judicious use of inputs.
  - **Swachhh Bharat Mission** has been launched to address concerns over waste disposal, sewage treatment, sanitation. These factors adversely affect the quality of land.
  - To ensure 'More Crop Per Drop' Government has launched the 'Pradhan Mantri Krishi Sinchayee Yojana'.
  - Apart from these, government is also implementing Integrated Watershed Management Programme, National Mission for a Green India and National Afforestation Programme.

**Conclusion**

The goal should be to achieve sustainable land management. This can be achieved by:

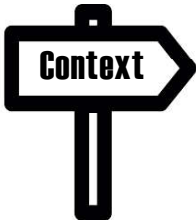
- Firstly, addressing poverty. It is because poverty forces the people who depend on land for their livelihoods to overexploit the land for various reasons.

- ▶ Secondly, by building environmentally sound human settlements. Thus, educate and train to make them aware and as a part of efforts to combat desertification.
- ▶ Thirdly, take practical measures to prevent degradation and restore degraded land. Some of these measures are:
  - ▣ Improved early warning system and water resource management;
  - ▣ Introduction of new species and varieties with a capacity to tolerate salinity and/or aridity;
  - ▣ Windbreaks and shelterbelts of live plants;
  - ▣ Afforestation and reforestation;
  - ▣ Sustainable pasture and forest & livestock management; and
  - ▣ Narrow strip planting.
  - ▣ Management practices like water development, placement of salt and supplements, fertilizer application, fencing, burning can control the overgrazing.
  - ▣ Irrigation system can be controlled like drip irrigation to reduce soil erosion.
  - ▣ By proper management of mining process, using advanced technologies rather than conventional methods. After mining by proper back filling, spreading the soil back over the top, the land can be reclaimed.

People (the human resources) and the natural resources on which they depend, directly or indirectly, are inextricably linked. Rather than treating each in isolation, all ecosystem elements are considered together, in order to obtain multiple ecological and socio-economic benefits.

## SCIENCE ISSUE

# The Paradox of Innovation



*The World Intellectual Property Organisation released the rankings as part of its Global Innovation Index 2017.*

*The World Intellectual Property Organisation ranked India the world's top exporter of information, computer and telecom services, and also the 60th most innovative nation. Global Innovation Index ranks countries on an annual basis for their contribution towards successful innovations based on their capacity.*

*Switzerland topped the 130-country index followed by Sweden, Netherlands and the United States.*

*Thus, analysing the concept of innovation, its importance in nation building and its status in India.*

## Innovation Defined

- ▶ Why do some nations prosper while others struggle? The reason is urge for innovation. Innovation is increasingly seen as the key to unlocking competitive advantage, as much for countries as for companies.
- ▶ Innovation involves thinking differently, creatively and insightfully to create solutions that have an impact in terms of social and economic value.
- ▶ Innovation is critical for creating competitive or collaborative advantage, problem solving to address the challenges of our times, improving governance, and generating intellectual value.

## Significance of innovation

Innovation has a critical role to play in the processes of India's economic and social growth and development. Innovation can make a difference in addressing urgent developmental challenges such as providing access to drinking water, eradicating neglected diseases or reducing hunger.

At the grass-root level, it often involves local communities, utilising locally owned knowledge to create innovations which can then be disseminated to other communities and transferred to other activities. Innovation has gone beyond the confines of traditional research and development (R&D) and is providing solutions across sectors, and has become vital for driving productivity and competitiveness.

## Rising Innovation in India

Some sections of the society are claiming that innovation in India is happening both in large corporations as well as at the grassroots level in remote villages. Their argument is based on the following developments:

- ▶ **Improvement in Global Innovation Index:** India has moved up six ranks to 60th in the 2017 Global Innovation Index compared to 2016. It's a significant

improvement from the 81st position out of 140-odd countries in 2015. Even countries such as Trinidad and Tobago, Bosnia and Herzegovina, and Morocco were ahead of India that year.

- ▶ **Increase in international patent applications:** International patent applications filed by a country are used to assess the innovative activity of that country. Now, according to figures released by the Geneva-based World Intellectual Property Organisation, international patent applications filed from India rose 8.3 per cent to 1,529 (1,423 last year).

### Real Situation

- ▶ In The Times Higher Education World Reputation Rankings 2017, no Indian university made it to the top-100 list, though Asian universities improved their performance, with 28 of them making to the list.
- ▶ Last year, The IITs ranked 71 on the Reuters Top 75 — Asia's Most Innovative Universities list that identifies institutions doing the most to advance science, invent new technologies and help drive the global economy. The Indian Institute of Science in Bengaluru, the only other Indian institute in the list, was ranked 72.
- ▶ Over 70 per cent of the patents filed in the country are by multinational companies; Indian companies and academia share the remaining 30 per cent.
- ▶ In the last 60 years or more, India has failed to produce a single ground breaking innovative idea that made a notable economic impact. No Indian citizen has won a Nobel in any tech discipline since independence. The only resident Indian to have won Nobel was CV Raman, in 1930.
- ▶ The country has become the third-largest start-up ecosystem, but it lacks successful innovation. That's why 90 per cent of Indian start-ups fail within the first five years.
- ▶ India has only two research organisations of repute – the Indian Institute of Science and the Indian Space Research Organisation.

### What are the Reasons behind Poor Innovation in our Higher Education Systems?

- ▶ **Less number of researchers:** Most Indian universities lack focus on research, which in effect reduces them to **teaching shops**. This has happened because the number of researchers in the country is just about 15 per 100,000 people.
- ▶ **Less Tax incentives:** India lags in other areas such as collaborative R&D tax credits (offered on expenditures made to support research at universities, national labs, and research consortia), and encouragement to commercialise innovation, rather than just for the research.
- ▶ **Obsession with jugaad:** Many say real Indian innovation continues to be low-cost tweaks at the bottom of the pyramid, or, to use a word Indians love, *jugaad*. Celebrating jugaad is also the reason why there is hardly any incentive for a small business to invest in new technologies. The collective obsession for “more for less” can hardly develop an ecosystem for real innovation.
- ▶ **Less spending on R&D by companies:** India Inc's miserly spend (less than 1 per cent of sales) on research and development. Just one out of five Indian manufacturing firms offer in-service training, compared with 92 per cent in China and 42 per cent in Korea.
- ▶ **Fragmented policy and policy implementation:** There has been no comprehensive policy focusing on innovation and entrepreneurship so far. Also, the mechanisms to operate existing, fragmented policies are not uniform, which resulted in gaps in understanding and failure to achieve the desired effects of such policies.



- ▶ **Difficult and lengthy funding procedures:** Although funding is available from banks and public sources the procedures for accessing such funding are often complex, cumbersome, lengthy, and bureaucratic, in other words, not conducive to innovation and entrepreneurship. Moreover, despite these difficult and lengthy procedures, the system seeks immediate returns. However, the returns from innovation are often uncertain, late, or not quantifiable immediately.
- ▶ **Weak linkages between stakeholders:** The linkages between industry, especially medium and small-scale enterprises and R&D or academic institutions are weak.
- ▶ **Non-conducive education system:** The general education system is still too focused on grades and careers and is not oriented toward innovation and entrepreneurship. This situation is further worsened by the inherent problems of lack of infrastructure and good facilities in the educational institutions; delays in the funding system; and delays in the funds or other support reaching innovation projects.

### Strategies for Innovation

Overcoming these challenges will not be easy. Yet the need for action is clear. Here are some strategies for action:

- ▶ First, it is important to articulate a national vision of innovation. This can only be done as a successful collaboration across the government and other key stakeholders including the private sector and academia. In this context, while it is heartening to see that the NITI Aayog has formed the Atal Innovation Mission, a cohesive national strategy for innovation is yet to be articulated.
- ▶ Second, choices have to be made and supported. A strategy of letting private venture capital firms decide which firms or sectors to support may not be the best approach for India. The government in partnership with industry and academics should seek to identify areas of focus—areas where India seeks to innovate with appropriate technologies and create solutions for India and the world. India and Indians face a myriad of problems and challenges—ranging from health to sanitation and from transportation to the environment.
- ▶ Third, Encouraging innovation in the private and public sectors of the economy is critical, especially if these companies are to become more competitive globally. Clear incentives should be provided to firms to invest in research and development. Effective regulatory regimes should be encouraged to support intellectual property and the longer term investments of firms.
- ▶ Finally, the government should make itself the showcase of digital transformation and innovation. Government services touch the lives of hundreds of millions within India, in all parts of the country ranging from remote villages to large cities. By embracing digital technologies, and redesigning processes, the government can lower costs, create the capacity to invest in critical growth areas and help improve the quality of lives of all Indians.

## POLITICAL ISSUE

## Gorkhaland Crisis

## Context

- ▶ *Darjeeling and Kalimpong districts, particularly the hill portion excluding the southern tehsils of Phansidewa, Kharibari, Siliguri and Matigara, have been in a politically driven near-total civil upsurge since June 12.*
- ▶ *The provocation was the May 16 decision by the Trinamool Congress (TMC) controlled West Bengal government to institute a three-language formula in school education throughout the state. Under the formula, Bengali will be compulsorily taught up to Class X, although students would not have to take an examination in the subject.*
- ▶ *The Bimal Gurung led Gorkha Janamukti Morcha (GJM), which wields substantial political influence over the nearly five lakh Nepali-speaking Gorkha people inhabiting the two districts, is spearheading the ongoing protests. It considers the West Bengal government's decision a threat to the Gorkha ethno-cultural identity and socio-economic interests.*
- ▶ *Although the West Bengal government has now withdrawn the controversial order, the GJM has revived an earlier demand for statehood for the Gorkha people. Further, GJM members have not only resigned from the Gorkhaland Territorial Administration (GTA) but the party along with 12 other Gorkha outfits has also decided to render the institution of the GTA non-functional by preventing any further elections to the body.*

## Geography

The proposed state of Gorkhaland consists of Nepali-speaking people of Darjeeling, Kalimpong, Kurseong and other hilly districts.

## Polity: Gorkhaland Territorial Administration (GTA)



- ▶ It is a semi-autonomous administrative body for the Darjeeling and Kalimpong hills in West Bengal, India.
- ▶ GTA presently has three hill subdivisions Darjeeling, Kurseong and Mirik and some areas of Siliguri subdivision of Darjeeling district and the whole of Kalimpong district under its authority.
- ▶ A bill for the creation of GTA was passed in the West Bengal Legislative Assembly on 2 September 2011.

### History of Gorkhaland Movement

The crisis in Gorkhaland has been brewing for many decades and stems from language.

- ▶ In 1780, the Gorkhas captured Sikkim and most part of North Eastern states that includes Darjeeling, Siliguri, Simla, Nainital, Garhwal hills, Kumaon and Sutej, that is, the entire region from Teesta to Sutej.
- ▶ After 35 years of rule, the Gorkhas surrendered the territory to British in the **Treaty of Segoulee in 1816**, after they lost the Anglo-Nepal war.
- ▶ **1907:** The first demand for Gorkhaland is submitted to Morley-Minto Reforms panel.
- ▶ **1907-1980s:** After that on several occasions demands were made to the British government and then government of Independent India (most notably to state reorganization commission) for separation from Bengal.
- ▶ **1980-90:** The demand for Gorkhaland was intensified in the 1980s under the leadership of Gorkha National Liberation Front supremo Subhas Ghising. The movement turned violent during the period of 1986-88, and around 1,200 people were killed. After a two-year long protest, the **Darjeeling Gorkha Hill Council (DGHC)** was finally formed in 1988.
- ▶ **2007-2011:** At the last phase of left front's regime, the mass movement for Gorkhaland took place under the leadership of Gorkha Janmurti Morcha (GJM) supremo Bimal Gurung. The four-year long movement came to an end after new CM Mamata Banerjee's declaration of **Gorkhaland Territorial Administration (GTA)** and Gurung was made its leader.
- ▶ **2013:** With the formation of Telangana on July 20, 2013, the movement for Gorkhaland state again intensifies. Gurung resigns from the head of GTA, saying people have lost all faith. However, making her stand clear, West Bengal Chief Minister Mamata Banerjee has said: "**Bengal cannot suffer the pain of yet another partition.**"

### Debate: Should we Create a Separate Gorkhaland State

#### Arguments in favour of creation of Gorkhaland state

- ▶ **Different in every way from Bengalis:** Gorkhaland consists of Nepali-speaking people of Darjeeling, Kalimpong, Kurseong and other hilly districts. The people belonging to these areas hardly have any connection with the Bengali community and are different in ethnicity, culture and language.
- ▶ **Flawed language census of 1949:** The demand for Gorkhaland, though articulated in the mid-1980s, owes its origin to the flawed report of the language census of 1949 that preceded the creation of linguistic states. The census found that only 49,000 people in the Darjeeling hills spoke what was then called Gorkhali, and thus decided that a linguistic state carved out of Bengal was not called for. The Gorkhas say this number did not reflect the reality — that while there are various tribes like the Lepchas, Bhotias and Tamangs who have their own dialect, Nepali was and remains the common language in the hills.

- ▶ **Failure of GTA:** There have, however, been inadequacies in the functioning of the GTA because substantial administrative and fiscal authority has remained with the state government's district heads, i.e., district magistrates, instead of being delegated to the executives under the GTA. Moreover, the entire resource allocating authority and a broad spectrum of fiscal powers have continued to remain vested with the state government headquartered at Kolkata. This hiatus in authority has been one among several factors affecting developmental activities in the area, and in triggering the recent agitation.
- ▶ Apart from all above, this region continues to suffer from backwardness and is also prone to interference from the state government.

#### Argument against creation of Gorkhland state

- ▶ **Domino effect:** Acceding to these demands is likely to have implications in other parts of the country. Already, some outfits such as the Bodoland Tribal Area Districts of Assam and the Indigenous Peoples' Front of Tripura, which too demand statehood for the groups they represent in Assam and Tripura, respectively, have extended support to the GJM.

#### Negative impact of this agitation; what is the way ahead?

- ▶ **China:** Darjeeling is West Bengal's northern-most district and is strategically located at a distance of 441 kms from the Sino-Indian border.
- ▶ **Army:** We should also remember that this region acts as the base it provides for the recruitment of local Gorkhas in the Army.

#### Way ahead?

- ▶ **Don't impose Bengalis on them:** The Gorkha inhabitants of Darjeeling and Kalimpong districts have been willingly acquiring a working knowledge of Bengali to facilitate transactions both at the state government level and with the plain people (mostly Bengalis, but also Koch-Rajbanshis and Santhals) residing in these districts. Nevertheless, the attempt to impose Bengali in Darjeeling and Kalimpong districts has angered their Gorkha inhabitants.
- ▶ **Try out other alternatives:** The arrangements for partial self-governance under gubernatorial aegis within the ambit of the 6th Schedule of the Constitution in many of the autonomous council areas of the north-east have not worked satisfactorily in terms of serving the interests of the targeted populace. This holds true for the GTA too as pointed out earlier. Notwithstanding that, it may still be judicious to try out various political alternatives in a graduated but decisive manner to address the Gorkhland demand.

#### Concluding Remarks

- ▶ Subject to a political consensus among Delhi, Kolkata and the local Gorkha leadership of Darjeeling-Kalimpong, there may still be some scope for a solution short of a full-fledged Gorkhland state, provided the lacunae observed in the functioning of the GTA can be overcome and the governor's role is made more substantive and direct in respect of the devolved functional areas, and operated as such.

## ECONOMIC ISSUE

# Government Limitations in Job Creation

Context

- ▶ *In 2015 and 2016 data showed average employment generation to be around 200,000 jobs a year. This is a precipitous decline from the 2009-11 periods, when it was 950,000 jobs annually.*
- ▶ *Government policies must promote the formation of strong clusters and networks for employment generation.*

## Introduction

Why an economy supposedly growing at a rate of over 7 per cent is not creating enough jobs? Economists say this is because more work is now being done with fewer employees. ‘The economy is generating fewer jobs per unit of GDP. The economy has become less labour absorbent’.

Around 100 million youth are seeking jobs every year in the Indian job market. But only 1.35 lakh jobs were created in 2015 and 4.93 lakh jobs were created in 2014 across eight sectors according to the Labour Bureau of India. Manufacturing sector is the only important sector which can give jobs to semi-skilled youth who are migrating from rural to urban areas. Manufacturing sector includes MSME (Micro Small and Medium enterprises) which employs 110 million people.

The current government’s goal to create 120 million jobs in 24 sectors over 2015-2020 looks like a tough challenge as several factors have slowed down the job creation. While only 135,000 jobs were created in 2015-16, demonetisation led to big job losses in the informal sector.

## What is the issue?

- ▶ India’s unemployment rate grew from 6.8 per cent in 2001 to 9.6 per cent in 2011, according to Census 2011 data. Every month, a million Indians become age-eligible to join the workforce, but the growth in jobs has not kept pace with the rising number of aspirants. The result: unemployment has been on the rise, despite India supposedly being one of the brighter spots in a slowing global economy.
- ▶ According to the labour ministry’s 27th Quarterly Employment Survey of eight employment-intensive industries - textiles, leather, metals, automobiles, gems & jewellery, transport, IT/BPO and handloom/powerloom) - there were 43,000 job losses in the first quarter of FY 2015-2016. The second quarter was better, with 134,000 new jobs, but even then the 91,000 net new jobs created in the first half of FY 2015-16 look hapazardous.
- ▶ At their peak, three sectors had added 1.1 million jobs in 2010. In the following five years, however, 1.5 million jobs were lost. FY 2014-15 saw a spurt, with

500,000 new jobs added as compared to 300,000 the year before, but it was still half the peak figure. There have been no signs of recovery in FY 2016; in fact, there is a decline.

- ▶ One reason for the decline in jobs could be a reduction in contract workers (nearly 70,000 of them were retrenched in the first half of FY 2016, compared to 161,000 additions in the first half of FY 2015).
- ▶ Employment in export units, reeling under shrunken global demand, also saw a sharp decline. There were only 5,000 job additions in the first half of FY 2016 compared with 271,000 in the corresponding period of FY 2015. In the automobile sector, for instance, there were 23,000 job losses in export units compared to the 26,000 job additions in the other seven labour-intensive sectors in the second quarter of FY 2016.
- ▶ Around 950,000 jobs annually are also inadequate given that there are 12 million new entrants in the workforce every year. Granted, the QES data does not include informal sector jobs—but employment in the formal and informal sectors is unlikely to be moving in vastly different directions which is not count as the sustainable solution.

#### Initiative undertaken by the Government

- ▶ The government, on its part, seems to have grasped this change: new ‘thrust areas’ - such as Digital India, Skill India, Start UP India and Make in India - all focus on creating an ecosystem that will generate jobs.
- ▶ The exercise for setting up coastal employment zones the first two of which would come up in Gujarat and Andhra Pradesh. This will have excellent infrastructure and enabling environment and will open up manufacturing jobs and serves as an example.
- ▶ Besides, it has identified labour intensive sectors where employment generation could be incant.
- ▶ Institutional reforms could see rebuilding of institutes like UGC, AICTE and the Medical Council of India — the process for which has already been started by NITI Aayog.
- ▶ Policy moves are accelerating the five labour market transitions that are journeys to higher productivity-farm to non-farm, rural to urban, subsistence self-employment to decent wage employment, informal to formal, and school to work.
- ▶ Government has challenged that, Green sectors such as solar energy and wind, besides defence and aerospace industry, construction, education and healthcare will be the new job creators.
- ▶ Some recent initiatives that aim to enhance access, equality, quality and innovation in the area of higher and vocational education are the *Rashtriya Uchchatar Shiksha Abhiyan*, Technical Education Quality Improvement Programme, and National Skill Qualification Framework. A dedicated Department of Skill Development and Entrepreneurship has been created under the Ministry of Skill Development, Entrepreneurship, Youth Affairs and Sports to accord focused attention in this area. The Deen Dayal Upadhyaya Grameen Koushalya Yojana for poor rural youth and *Nai Manzil* for education and skill development of minority dropouts have also been set up.

## What effect can the government actually have on job creation?

- ▶ Estimating Employment Elasticity of Growth for the Indian Economy threw up some interesting facts about India's employment elasticity—the percentage change in employment associated with a one percentage point change in economic growth.
  - Firstly, elasticity has been on the decline since the 1970s and 1980s.
  - Secondly, overall employment elasticity is low.
  - Thirdly, in manufacturing, elasticity is higher in the organized sector than in the unorganized sector.
  - And fourthly, certain sectors in manufacturing, such as motor vehicles, electrical equipment and apparel, have relatively higher elasticity.
- ▶ **Proper utilisation of FDI inflows:** FDI inflows have increased substantially as result to make better FDI destination- better business environment and warm invitation to foreign investors to 'come and Make in India'. India recently beat China as the best FDI destination in the world, **but most of the FDI equity flow is going into the services sector and not the manufacturing sector.**
- ▶ Government may create job through various programmes such as Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). However, **it could be a palliative measures, not perennial ones.**
- ▶ **Increasing public investment to crowd in private investment:** This will help to boost job creation—has been much talked about in the current scenario where the twin balance-sheet problem has rendered the latter anaemic.
- ▶ **Elasticity in available actions:** Schemes like Make in India and Start-up India generate labour reforms that enable enterprises in the informal sector which responsible for the bulk of manufacturing employment generation to scale up or enterprises with greater elasticity in the formal sector to quick respond which have the more sustainable effects.
- ▶ **Controlling population:** A large part of country's wealth is spent on maintenance of the existing population and rapidly increasing population create extra burden every year. In case of India every year 12 million join labour forces. It is a challenge to ensure job to all. The very first solution for the unemployment is to control the rising population of our country. Government should motivate people to have small families. Indian government has started initiatives to control the population but still the population is rising
- ▶ **Reforms in labour market:** A greater emphasis on labour intensive industries such as textiles are needed to boost formal employment and sustain urban demand growth. "The skilling challenge is tough to access, nearly 50 per cent of India's labour force on farms needs to transition to non-farm jobs, but often does not have the skills.

However the steps which government takes to initiate job creation is limited as it depends on many other factors. Thus for better job creation following steps are needed:

- ▶ **Growth Promotion:** Promote the growth of stronger clusters and networks of small enterprises: India has a surfeit of small and micro enterprises. Small and micro enterprises are desirable because they create more employment per unit of capital, they enable citizens to create jobs for themselves and earn incomes with less state expenditure, and their growth can be widespread in all regions and in many sectors thereby making growth more inclusive.

- ▶ **Focus more on the SMSE:** Small and micro enterprises can overcome limitations in accessing markets, in obtaining resources, and in developing their capabilities by organising into effective clusters (geographic and virtual), and also by connecting on technology enabled platforms.
- ▶ **Quality Improvement:** The quality of clusters and cooperative associations of enterprises in India is much weaker than in other countries where small enterprises have provided the backbone of their faster industrial growth. Digital technology platforms and communication networks are becoming further accelerators for the empowerment of small and micro enterprises. In many cases, large firms can be strong catalytic nodes in the networks.
- ▶ **Promote the growth of a ‘life-long learning’ system:** The content of work is changing dynamically in many industries with new technologies and new forms of enterprises. The numbers of jobs of any type that will be available in the future are very difficult to predict. It is also difficult to reform formal education quickly (which is a challenge for all countries).
- ▶ **Skill training:** Even mass skilling systems to produce large numbers of skilled persons risk turning out skilled yet unemployed people. (Such gaps are emerging in India).

The formal education system must be supplemented with affordable and accessible, ‘just-in-time, needs aligned’ learning modules.

- ▶ **Promote the rapid use of technology as an enabler:** Digital technologies can provide more reach to small enterprises and increase their productivity, too. They can enable the formation of platforms of enterprises including large ones; they can facilitate the development and delivery of ‘just-in-time, needs aligned’ learning modules; they can enable micro enterprises to access the formal financial system; and they can also enable delivery of better social security services.
- ▶ **Promote agriculture based industries:** Government should encourage and develop the agriculture based industries in rural areas so that the rural people don’t migrate to the urban areas. More employment should be generated in rural areas for the seasonal unemployment people.

## Conclusion

- ▶ A ‘whole of government’ approach is necessary to create jobs: Jobs cannot be sprinkled into the economy by the government. Jobs will emerge from interactions of many drivers in the economy — the growth of enterprises, life-long learning systems and social security, as well as the quality of physical infrastructure and the ease of doing business. Silo approaches will not produce the rapid change necessary in the jobs ecosystem. They can also back-fire, e.g. turning out many skill-certified persons who cannot find jobs; or concessions for flexibility to enterprises without providing social security which will lead to social and political complications.
- ▶ Therefore, job creation policies must be coordinated at the top of the system, at the level of the PMO at the centre and chief ministers in the States.



# Prelims News



Hereby, compiling the important short notes of June (16 to 30), 2017.

## Indian Culture

### TAJ PALACE GETS A TRADEMARK

#### Context:

- ▶ The iconic Taj Mahal Palace in Mumbai has got itself trademarked. This makes the 114-year-old building the first in the country to get such a registration.
- ▶ This enhances the Taj Palace's place in the world: among the other well-known structures around the world with such trademarks are the Empire State Building in New York City, the Eiffel Tower in Paris, and Sydney's Opera House.

#### Importance of Trademark:

- ▶ With IHCL trade marking the building, nobody can now use Taj Mahal Palace's images for commercial purposes without paying the company a licensing fee.
- ▶ Usually, trademarks are only assigned to company logos and brands, entities that make goods or services that are bought and sold or the goods or services themselves. This is to protect these commercial entities from other commercial entities that may seek to use their goodwill and brand recognition.

#### Taj Palace backgrounder

- ▶ Tata group's founder, Jamsetji Tata, decided to set up the hotel after he was refused entry into Watson Hotel, which only allowed whites. The Taj was the country's first luxury hotel built by an Indian and Bombay's first luxury hotel.
- ▶ At the time of its inauguration, it was the only hotel in India with electricity. It was also the first to have an elevator, a licensed bar, an all-day restaurant and a discotheque.
- ▶ It has played host to leaders of the Indian Freedom movement such as Muhammad Ali

Jinnah, Sarojini Naidu and many others. Lord Mountbatten, the British Raj's last viceroy of India, announced the country's independence from its steps in 1947.

- ▶ The Taj Mahal Palace which was built in 1903 even before the Gateway of India, acted as a triangulation point for the Indian Navy to show way towards the harbour.
- ▶ During World War I, the property, constructed by former IHCL chairman Cyrus Mistry's family firm Shapoorji Pallonji & Co, was converted into a hospital.
- ▶ The unique red-tiled Florentine gothic dome which crowns the Indo-Saracenic arches and architraves of the hotel became a symbol of the 2008-terror attacks in Mumbai after images of it being engulfed in smoke broke in the media.

### INTERNATIONAL YOGA DAY CELEBRATED

#### Context:

- ▶ All over the world, International Yoga Day was celebrated on June 21, 2017.

#### International Yoga day:

- ▶ In mid-2014, PM Modi proposed the idea of declaring June 21 as yoga day. Following this in December 2014, the UN General Assembly adopted an India-led resolution declaring June 21 as 'International Day of Yoga'.
- ▶ UN General assembly recognized that "Yoga provides a holistic approach to health and well-being."
- ▶ The resolution on 'International Day of Yoga' had 177 nations joining as co-sponsors, the highest number ever for any General Assembly resolution.

**Why June 21?**

- ▶ June 21 is one of the two Solstices.
- ▶ It is the longest day of the year in the Northern Hemisphere.

**Kerala gets its first total yoga village**

- ▶ 'Kunnamthanam' in Kerala is the first total yoga village with at least one member of each family in the panchayat trained in yoga.

**AL-NURI MOSQUE****Context:**

- ▶ Islamic state has destroyed Al-Nuri Mosque with its Al-Hadba Minaret in Mosul in the battle of Mosul.

**Al-Nuri Mosque:**

- ▶ Tradition holds that Nur ad-Din Zangi, a Turkish noble built the mosque in 1172–1173. Thus the mosque was named after him.
- ▶ It was here that IS leader Abu Bakr al-baghdadi declared a 'Islamic caliphate'.

**Al-Hadba Minaret:**

- ▶ The mosque was well known for its leaning minaret, known as al-Hadba.
- ▶ Iraqi's affectionately called it as "**the hunchback**".

**Mosul:**

- ▶ Mosul is a major city in northern Iraq.
- ▶ **Mosul stands on the west bank of the RIVER TIGRIS.**
- ▶ The city had been under the control of the Islamic State of Iraq and the Levant since June 2014.

**ODISHA TEMPLES GET 'NATIONAL IMPORTANCE STATUS'****Context:**

- ▶ The Centre has declared the temples of Odisha's Ranipur-Jharial, and their adjoining ruins, as monuments of national importance.

**About the Site**

- ▶ Temple site dates, to a time period between the 8th and the 11th centuries, located in the ancient trade route connecting Titlagarh and the erstwhile Madhya Bharat.
- ▶ The temple sites also house the famous Chausath Yogini temple, a centrally-protected monument.
- ▶ The ancient complex was found to have over 120 temples as per the ASI's report of 1876.
- ▶ The site is surrounded by a host of historically important sites like Narisinghnath, Maraguda, Podagarh, Asurgarh, Belkhandi, Saintala and Patnagarh.
- ▶ The temples are dedicated to a host of deities, including Shiva, Vishnu and Yogini.
- ▶ The group of temples imbibes a host of different architectural styles like **rekha, khakara, pidha and hypaethral**, along with different types of building material such a **granite, sandstone, bricks, stucco**, etc.

**About Monuments of National Importance**

A monument or a site is declared to be of National Importance by the Archaeological Survey of India provided it meets the following requirements:

- ▶ The monument or archaeological site is not less than 100 years old.
- ▶ It has special historical, archaeological or artistic interest, making it worthy of declaration as of national importance.
- ▶ It qualifies under specified provisions of definition of the Ancient Monuments and Archaeological Sites and Remains Act, 1958.
- ▶ The interested public do not have major objections to such declaration.
- ▶ The authenticity and integrity of the ancient monument or archaeological site and remains have not been damaged.
- ▶ It is free from major encumbrances.

## Science and Environment

### NATIONAL CAPACITY BUILDING PROJECT FOR WASTE MANAGEMENT

#### Context:

Under the Swachh Bharat Mission initiative, the Ministry of Urban Development and Ministry of Environment, Forests and Climate Change have launched a National Capacity Building Project in 68 Cities on the above rules and their implementation aspects for the Urban Local Bodies/UAs and various stakeholders in the identified cities.

#### About National Productivity Council (NPC):

- ▶ National Productivity Council (NPC), an autonomous body under Ministry of Commerce and Industry, Government of India.
- ▶ Council Serving as National Programme Coordinator in association with Central Pollution Control Board which is the National Implementing Agency for the said Capacity Building Project on Six Waste Management Rules (2016).
- ▶ The Capacity Building project seeks to strengthen institutional capacities at ULBs and amongst stakeholders, towards collection, treatment, disposal and efficient management of various types and categories of wastes, promote 3Rs (Reduce, Reuse, Recycle) initiatives and dissemination of good practices, and facilitate integrated efforts towards achieving improvement in general health of city environment, etc.

The Ministry of Environment, Forests and Climate Change, Government of India has notified Six Waste Management Rules in year 2016. These are:

- ▶ Plastic Waste Management Rules, 2016
- ▶ e-waste (Management) Rules, 2016
- ▶ Bio-Medical Waste Management Rules, 2016
- ▶ Construction and Demolition Waste Management Rules, 2016
- ▶ Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016
- ▶ Solid Waste Management Rules, 2016

### INDIA'S ATMOSPHERIC CARBON DIOXIDE LEVELS INCREASED

#### Context:

- ▶ The first-ever picture of atmospheric carbon dioxide concentration over India shows that it

is way above the safety mark and in line with what has been observed in other parts of the world.

#### About the Data

- ▶ Concentrations beyond 350 carbon dioxide molecules, is considered unsafe as these concentrations are likely to trap enough heat to trigger extreme climate events the world over and it would become progressively harder, and costlier, to suck out the excessive CO<sub>2</sub>.
- ▶ In 2015, the global average was 400 ppm, according to reports from Mauna Loa. In India, that year, according to a report published in the latest issue of *Current Science*, the average CO<sub>2</sub> level was 399 parts per million (ppm).
- ▶ Southern India and the western coast saw concentrations between 395 ppm and 400 ppm while the central and northern regions registered between 400 and 405 ppm.
- ▶ Pockets of Madhya Pradesh, Uttar Pradesh and Himachal Pradesh saw CO<sub>2</sub> concentrations hover much higher between 405 ppm and 410 ppm.
- ▶ The findings are based on readings from the Orbiting Carbon Observatory-2 (OCO-2).
- ▶ The OCO-2 satellite was built by Orbital Sciences Corporation, based around the LEOSTAR-2 bus. The spacecraft is being used to study carbon dioxide concentrations and distributions in the atmosphere.

### IISER PUNE DEVELOPED NOVEL DRUG DELIVERY SYSTEM TO KILL CANCER CELLS

#### Context:

With population boom and changing lifestyle, the deadly diseases are striking deep roots in India. Among various diseases, cancer has become a big threat to human beings globally. As per Indian population census data, the rate of mortality due to cancer in India was high and alarming.

Thus the Researchers at the Indian Institute of Science Education and Research (IISER) Pune have successfully developed a novel cancer drug delivery system using Graphene oxide nanoparticles. This research can be big achievement in treating cancer cells, which can result into less mortality.

**Significance of the research:**

- ▶ According to the research, when anti-cancer drug Cisplatin was added, the Graphene oxide sheets self-assembled into spherical nanoparticles enclosing the drug within, the Cisplatin drug is reacting with Graphene oxide and transforming the Graphene sheet into a ball-like structure, a kind of 'molecular stitching'. So there is shape-shifting kind of transformation of the Graphene oxide sheets into a spherical structure.
- ▶ However, two other DNA-damaging anticancer drugs - Proflavine and Doxorubicin, have no role in changing the morphology of Graphene oxide from a sheet to a spherical nanoparticles. The nanoparticles containing Cisplatin alone was able to kill cancer cells, but there is additive effect when two drugs are used together and efficiency of killing the cancer cells becomes better.
- ▶ The Cisplatin nanoparticles containing either Proflavine or doxorubicin were found to get into the lysosomes of a cell in a time-dependent manner. Once inside the lysosomes, the drugs were released in a slow and sustained manner and killed the cancer cells predominantly through programmed cell death.

**What is Graphene oxide?**

- ▶ Graphite oxide is a compound of carbon, oxygen, and hydrogen in variable ratios, obtained by treating graphite with strong oxidizers.
- ▶ Graphene oxide, a cheaply abundant carbon-based material that can be used for various applications ranging from material science to biomedical research.

**Way forward**

Biotechnology advances are leading to improved medications that can target diseases more effectively and precisely. Researchers are trying to reformulate drugs so they may be more safely used in specific conditions.

The more targeted a drug is, the lower its chance of triggering drug resistance. The Graphene oxide-based drug delivery system will be useful for next-generation cancer therapy. The researchers are planning to undertake more studies using other cancer cells to generate more efficacies.

**FIRST INDIGENOUSLY BUILT FLOATING DOCK LAUNCHED****Context:**

- ▶ Larsen & Toubro has launched the first indigenously built Floating Dock (FDN-2) to

repair Indian Navy ships at its Shipyard at Kattupalli, north of Chennai.

- ▶ The floating shipyard would be handed over to the Indian Navy after conducting three to four months of trial.
- ▶ FDN-2 is the first Naval shipbuilding project for L&T. L&T has been undertaking repairs and refits of Naval and Coast Guard ships.
- ▶ It has delivered six ship refits including the largest Logistics Tanker ship INS Jyoti.
- ▶ L&T has so far invested around Rs 5,000 crore in the Kattupalli Shipyard.

**How it termed as a floating dock?**

- ▶ The floating dock is 185 metres long and 40 metres wide.
- ▶ It will enable docking of all kinds of vessels.
- ▶ This will include naval ships and submarines of up to 8,000 tonnes displacement and capable of simultaneous docking of multiple ships.
- ▶ It would include draughts of up to seven metres, during both day and night.
- ▶ These floating docks are capable of being installed either along a jetty, moored in calm waters and also moved to high seas enabling round-the-year operation.
- ▶ It will enhance the Navy's technical repair infrastructure.
- ▶ In addition, off-center docking options were also feasible. It has hauling-in system to handle a ship's docking and undocking operations. It can also cater to the ships berthed along its side. At any point of time, FDN-2 can cater to six ships for repairs or refit.

**Where will it be placed?**

FDN-2 will be based in the, Andaman and Nicobar Islands' in Bay of Bengal.

**ICE MEMORY PROJECT****Why in news?**

- ▶ Scientists studying global warming recently extracted samples of ice by drilling deep into the glacier from Bolivia's Mount Illimani.
- ▶ The glacier at Mount Illimani has 18,000 years' worth of weather and environmental data for a broad region between the Bolivian highlands and the country's Amazon rainforest region.

**Ice archive sanctuary in Antarctica:**

- ▶ Mountain glaciers keep a record of climate and environment, captured in ice.
- ▶ They are the only direct natural records we have of variations in atmospheric composition,

a vital contribution to environmental and climate science.

- ▶ The archives of climate data at the bottom of glaciers are in danger due to global warming.
- ▶ As temperature rise, water leaks into the glaciers and washes away geo-chemicals that scientists seek to study.
- ▶ The scientists will take these glacier samples to a research station in Antarctica.
- ▶ Their goal is to create an Ice archive sanctuary in Antarctica to preserve ice cores from the world's key endangered glaciers.
- ▶ This will ensure that future scientists will still have enough high-quality raw materials to investigate and make future discoveries.

**ICE Memory Project team:**

- ▶ The ICE Memory project aims to constitute the first world library of archived glacier ice, to preserve this invaluable scientific heritage for the generations to come, when future techniques can obtain even more data from these samples.
- ▶ This project is managed by the University of Grenoble Alpes Foundation
- ▶ It is sponsored by the French and Italian national commissions for UNESCO.

**ANTARCTICA POLICY & LAW PROPOSED BY MINISTRY OF EARTH SCIENCE**

**Context:**

- ▶ Ministry of earth science is drafting a dedicated **Antarctica policy & law**. A committee that includes Biman Patel, Vice-Chancellor, Gujarat National Law University, has been asked to draft the new 'Antarctica law.'
- ▶ The draft policy and law will be tabled in the winter session of Parliament.

**Why is India preparing it?**

- ▶ To prepare itself for a populous future in which Antarctica may see:
  - More tourists,
  - Over-exploited fisheries and
  - Disputes & crimes.
- ▶ Being a signatory to Antarctica treaty, India is expected to have a clear policy on the consequences of its initiatives in the region.

**Antarctica treaty system**

- ▶ **Objective:** To regulate international relations with respect to Antarctica.

▶ **Salient features of the treaty:**

- Antarctica is defined as all of the land and ice shelves south of 60°S latitude.
- The treaty sets aside Antarctica as a scientific preserve.
- It establishes freedom of scientific investigation.
- It bans military activity on that continent.

▶ **Members:**

- The original signatories were the 12 countries active in Antarctica during the International Geophysical Year (IGY) of 1957-58. These twelve countries were : Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the Soviet Union, the United Kingdom and the United States.
- As of June 2017, the treaty has 53 parties (29 of which, including all 12 original signatories to the treaty, have consultative (voting) status).

**India's Antarctic program**

- ▶ The Indian Antarctic Program is a multi-disciplinary, multi-institutional program under the control of National Center for Antarctic and Ocean Research, Ministry of Earth Sciences, Government of India.
- ▶ It was initiated in 1981 with the first Indian expedition to Antarctica.
- ▶ The program gained global acceptance with India's signing of the Antarctic Treaty and subsequent construction of the **Dakshin Gangotri** Antarctic research base in 1983.
- ▶ It was superseded by the **Maitri** base from 1990.
- ▶ The newest base commissioned in 2015 is **Bharati**.
- ▶ Under the program, atmospheric, biological, earth, chemical, and medical sciences are studied by India, which has carried out 30 scientific expeditions to the Antarctic as of 14 October 2010.

**PETYA RANSOMWARE**

**What is ransomware?**

- ▶ Ransomware is a type of malware that blocks access to a computer or its data and demands money to release it.

**How does it work?**

- ▶ When a computer is infected, the ransomware encrypts important documents and files and

then demands a ransom, typically in Bitcoin, for a digital key needed to unlock the files. If victims don't have a recent back-up of the files they must either pay the ransom or face losing all of their files.

### What is Petya Ransomware?

- ▶ Petya is an old, existing ransomware that first emerged in 2016. It's known to overwrite the system's Master Boot Record (MBR), locking users out of their machines with a blue screen of death (BSoD).
- ▶ In Petya's case, the BSoD screen is used to show the ransom note. Known to be peddled as ransomware as a service (RaaS) in underground marketplaces, it has undergone several alterations and rehashes since it was first discovered—PetrWrap and GoldenEye, to name a few—and even joined forces with another ransomware family, Mischa.
- ▶ During this time, the Petya-Mischa ransomware combo featured a modular approach—Petya overwrote the MBR while Mischa encrypted the files.
- ▶ This version of Petya combines these two capabilities: after successfully infecting the

system, Petya modifies the victim system's MBR, after which the files are encrypted.

### How does the "Petya" ransomware work?

- ▶ The ransomware takes over computers and demands \$300, paid in Bitcoin.
- ▶ The malicious software spreads rapidly across an organization once a computer is infected using the EternalBlue vulnerability in Microsoft Windows (Microsoft has released a patch, but not everyone will have installed it) or through two Windows administrative tools.
- ▶ The malware tries one option and if it doesn't work, it tries the next one. It has a better mechanism for spreading itself than WannaCry.

### How far has it spread?

The "Petya" ransomware has caused serious disruption at large firms in Europe and the US, including the advertising firm WPP, French construction materials company Saint-Gobain and Russian steel and oil firms Evraz and Rosneft. The food company Mondelez, legal firm DLA Piper, Danish shipping and transport firm AP Moller-Maersk and Heritage Valley Health System, which runs hospitals and care facilities in Pittsburgh, also said their systems had been hit by the malware.

## ECONOMY

### AUTOMATIC EXCHANGE OF FINANCIAL ACCOUNT INFORMATION (AEOI)

#### Context:

- ▶ Switzerland has ratified automatic exchange of financial account information (AEOI) with India and 40 other jurisdictions.
- ▶ It will facilitate immediate sharing of details on suspected black money.
- ▶ The first set of data under AEOI will be exchanged in 2019.

#### Standard for Automatic Exchange of Financial Account Information

- ▶ It has been developed by the OECD with G20 countries.
- ▶ AEOI is a global convention on automatic exchange of financial account information for tax purposes, on a reciprocal basis.

#### Benefits of AEOI

- ▶ Enable government to recover tax revenue lost to non-compliant taxpayers.
- ▶ Strengthen international efforts to increase transparency, cooperation, and accountability

among financial institutions and tax administrations.

- ▶ Increase voluntary disclosures of concealed assets by encouraging taxpayers to report all relevant information.

#### Significance of its ratification

- ▶ It is a significant step as Switzerland has been perceived as one of the safest havens for the black money allegedly stashed abroad by Indians.

### JOB CREATION IN THE RENEWABLE SECTOR

#### Context:

- ▶ On June 21, 2017, think tanks, namely Council on Energy, Environment and Water (CEEW) and the Natural Resources Defence Council (NRDC) have released a new report on job creation in renewable sector.

#### Its findings:

- ▶ If India meet its target of adding 160,000 MW of renewable power (solar and wind power) by 2022, it would generate employment for 3 Lakh

new workers (Currently the two sectors employ around 21,000 people).

- ▶ Seventy per cent of the new jobs would be in the rooftop solar segment.
- ▶ Rooftop solar segment is labour-intensive. It generates “seven times more jobs” than large-scale projects such as solar farms. At present India is giving more push to solar farms as compared to rooftop solar segment.

**Recommendations made by the report:**

- ▶ Have a strong domestic manufacturing policy in place.
- ▶ Give more push to rooftop solar segment.

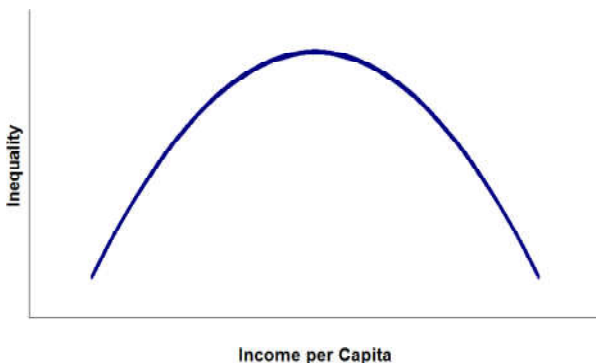
**India’s renewable target:**

- ▶ Target by 2022: India has committed to installing 175,000 MW of green power by 2022.
- ▶ Present status: As of June 2017, only 10% has been installed so far.

**KUZNETS CURVE**

**On Income Inequality**

- ▶ **Who gave this concept?** Simon Kuznets (an American economist).
- ▶ **What is it?** This curve demonstrates the hypothesis that as an economy develops, market forces first increases income inequality and then decreases income inequality.

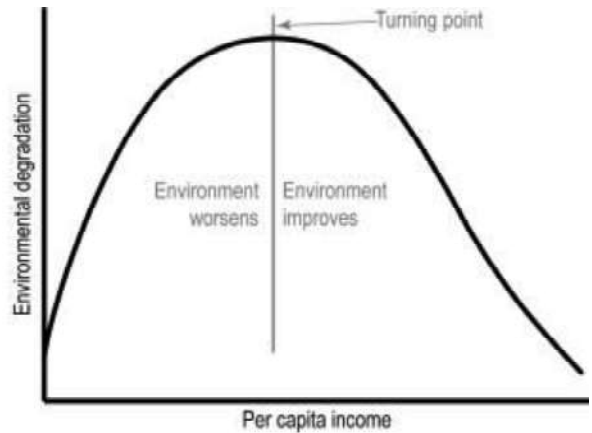


**What is the logic behind it?**

<b>Stage 1</b>	In preindustrial societies, almost everybody is equally poor so inequality is low.
<b>Stage 2</b>	Inequality then rises as people move from low-productivity agriculture to the more productive industrial sector, where average income is higher and wages are less uniform.
<b>Stage 3</b>	But as a society matures and becomes richer, the urban-rural gap is reduced and old-age pensions, unemployment benefits, and other social transfers lower inequality.

**Environmental Kuznets Curve**

- ▶ **What is it?** The Environmental Kuznets Curve adheres to the same idea of the hypothesized relationship between equality and development, only instead with environment equality.



**What is the logic behind it?**

<b>Stage 1</b>	When an economy is primarily pre-industrial and agrarian, there is a clean environment untouched by pollutants of economic industrial activities.
<b>Stage 2</b>	As the economy shifts towards development and industrialization, the environment is at a greater risk of being harmed by pollution and depletion of natural resources.
<b>Stage 3</b>	The curve then returns to a cleaner environment when economic growth continues and people choose to spend their incomes on improving the environment by cleaning water and improving air quality. People become more aware of the benefits to the environment.

**Critical analysis:**

- ▶ Before the Environmental Kuznets Curve hypothesis, it was generally assumed that rich economies destroyed the environment at a faster pace than poorer countries.
- ▶ Critics argue that even the US is still not prioritizing environment as can be seen by recent step by Donald Trump of quitting Paris climate change.

**GST (E-WAY BILLS)**

**Context:**

- ▶ At the 17<sup>th</sup> meeting of GST Council, centre discussed about the implementation of E-way bill system. However they couldn’t reach on

the consensus to implement it as the government is not ready with the technology backbone required to implement it.

- ▶ Once the technology backbone will be ready then transportation of certain goods with more than Rs. 50,000/- will require generation of E-Way bills.

### E-Way Bills

- ▶ E-way bill is an Electronic Way Bill for movement of goods which can be generated on the GSTN (common portal).
- ▶ A 'movement' of goods of more than Rs 50,000 in value cannot be made by a registered person without an E-Way bill.

### Radio frequency identification (RFID)

#### ▶ What is Automatic Identification?

- Automatic identification, or auto ID for short, is the broad term given to a host of technologies that are used to help machines identify objects.
- Following technologies fall under the auto-ID umbrella: bar codes, smart cards, voice recognition, some biometric technologies (retinal scans, for instance), optical character recognition, and radio frequency identification (RFID).

#### ▶ What is RFID?

- Radio frequency identification, or RFID, is a generic term for technologies that use radio waves to automatically identify people or objects.

#### ▶ How does an RFID system work?

- An RFID system consists of a tag, which is made up of a microchip with an antenna, and an interrogator or reader with an antenna.
- The reader sends out electromagnetic waves. The tag antenna is tuned to receive these waves.
- A passive RFID tag draws power from field created by the reader and uses it to power the microchip's circuits. The chip then modulates the waves that the tag sends back to the reader and the reader converts the new waves into digital data.

#### ▶ How is RFID different than using bar codes?

- The big difference between the two is bar codes are line-of-sight technology. That is, a scanner has to "see" the bar code to read it, which means people usually have

to orient the bar code towards a scanner for it to be read. Radio frequency identification, by contrast, doesn't require line of sight. RFID tags can be read as long as they are within range of a reader.

- Bar codes have other shortcomings as well. If a label is ripped, soiled or falls off, there is no way to scan the item. And standard bar codes identify only the manufacturer and product, not the unique item. The bar code on one milk carton is the same as every other, making it impossible to identify which one might pass its expiration date first.

## GOVERNMENT UNVEILS NEW HYDROCARBON POLICY

### Context:

- ▶ To enhance the 'Minimum Government maximum Governance, Union cabinet approves the Hydrocarbon Exploration and Licensing Policy (HELP).
- ▶ The policy is also aimed at enhancing transparency and reducing administrative discretion. The decision will enhance domestic oil & gas production, bring substantial investment in the sector and generate sizable employment.

### What are the four main facets of this policy?

- ▶ Uniform license for exploration and production of all forms of hydrocarbon,
- ▶ An open acreage policy,
- ▶ Easy to administer revenue sharing model, and
- ▶ Marketing and pricing freedom for the crude oil and natural gas produced.

### National Data Repository

- ▶ Lack of sedimentary data had been hampering oil and gas exploration and production.
- ▶ 52% of India's basin had not been appraised yet.
- ▶ Repository is expected to improve the situation.

### An overview of New Exploration Licensing Policy (NELP)

- ▶ New Exploration Licensing Policy (NELP) was created in 1997.
- ▶ To provide an equal platform to both Public and Private sector companies in exploration and production of hydrocarbons.
- ▶ Directorate General of Hydrocarbons (DGH) was a nodal agency for its implementation.



- ▶ Between 1998 and 2012, there were 9 rounds of oil and gas block auction (NELP 1 to NELP 9).
- ▶ Although 126 discoveries have been made in 41 active blocks, commercial production has commenced only in 3 blocks.
- ▶ Reasons for the delay vary from inadequate technology to delayed regulatory approvals.
- ▶ Today, only 2 blocks, the Reliance Industries-operated KG D6 block and the Gujarat State Petroleum Corporation-operated Cambay onshore block, are producing oil or gas.

The uniform licence will enable the contractor to explore conventional as well as unconventional oil and gas resources including CBM, shale gas/oil, tight gas and gas hydrates under a single license. The concept of Open Acreage Policy will enable E&P companies choose the blocks from the designated area.

### **LAUNCH OF NATIONAL BIO-PHARMA MISSION: INNOVATE IN INDIA**

#### **Context:**

- ▶ Union Ministry of Science and Technology launched the first ever industry-Academia mission to accelerate biopharmaceutical development in India.
- ▶ The program named Innovate in India (i3) will witness an investment of USD 250 million with USD 125 million as a loan from World Bank and is anticipated to be a game changer for the Indian Biopharmaceutical industry. It aspires to create an enabling ecosystem to promote entrepreneurship and indigenous manufacturing in the sector.

#### **What is the Aim of the mission?**

- ▶ The aim of the Mission is to “Enable and nurture an ecosystem for preparing India’s technological and product development capabilities in biopharmaceuticals to a level that will be globally competitive over the next decade, and transform the health standards of India’s population through affordable product development.”

#### **About the mission**

- ▶ The Mission seeks to create an enabling ecosystem to support entrepreneurship and indigenous manufacturing in the sector.
- ▶ i3 is committed to make India a hub for development of affordable & effective biopharmaceutical products.
- ▶ It aspires to create an enabling ecosystem to promote entrepreneurship and indigenous manufacturing in the sector.

- ▶ To strengthen and support the entire product development value chain for accelerating the research leads to product development. This will help not only in immediate product development addressing public health needs, but will also help to create an ecosystem, which will facilitate development of a continuous pipeline of products.
- ▶ India presently serves only 2.8% of the global biopharmaceutical market. The target is to increase the country’s market share to 5% by 2022. The thrust regions for the operation are biotherapeutics, diagnostics, vaccine development and development of medical devices.
- ▶ In collaboration with World Bank, it will accelerate discovery Research to Early Development for Biopharmaceuticals
- ▶ The Mission to be implemented by Biotechnology Industry Research Assistance Council (BIRAC), a Public Sector Undertaking of Department of Biotechnology will bring together expertise from national and international corridors to provide strategic guidance and direction to move promising solutions through the product development value chain.

### **NITI AAYOG MOOTS NEW REGULATOR FOR COAL GAS**

#### **Why In news?**

- ▶ NITI Aayog has released the Draft National Energy Policy. Draft of the policy aims to find a way to achieve the energy security targets announced by the government

#### **Recommendations by NITI Aayog:**

- ▶ NITI Aayog has recommended that the seven subsidiaries of India’s largest coal miner Coal India Ltd should be converted into independent companies.
- ▶ These subsidiaries be allowed to compete against each other in the open market.

#### **What are the criticisms made by the NITI Aayog?**

- ▶ Niti Aayog has criticised Coal India setting prices that are significantly higher than the implicit cost of mining by the independent power producers
- ▶ NITI Aayog has also pushed for higher production from private coal miners.

## RELEVANCE OF SWAMINATHAN COMMISSION REPORT FOR ARRESTING FARMERS' UNREST

### Context:

As farmers' unrest is increasing in several states, there is a need for the implementation of the Swaminathan Commission report.

**According to NCG, the major causes of the agrarian crisis are:**

- ▶ Unfinished agenda in land reform,
- ▶ Quantity and quality of water,
- ▶ Technology fatigue, access,
- ▶ Adequacy and timeliness of institutional credit, and
- ▶ Opportunities for assured and remunerative marketing.

### What is the Swaminathan Commission?

- ▶ The government of India constituted the National Commission on Farmers (NCF) on November 18, 2004. The NCF was chaired by Professor M.S. Swaminathan.
- ▶ NCF's Swaminathan Commission Report aimed at working out a system for food and nutrition security, sustainability in the farming system, enhancing quality and cost competitiveness of farm commodities and also to recommend measures for credit and other marketing related steps.

### What were the Commission's observations?

- ▶ The Commission observed that farmers needed to have an assured access to and control over rightful basic resources. These basic resources include land, water, bioresources, credit and insurance, technology and knowledge management, and markets.
- ▶ It observed that agriculture must be implemented in the concurrent list from the

state list – hence putting it as a matter of concern for both the Union and the states.

- ▶ Commission recommended for land reforms.
- ▶ It recommended access to common property resources. One main case was establishing a National Land Use Advisory Service. The purpose of this service would be to connect land usage decisions with ecological meteorological and marketing factors.
- ▶ It recommended framing a set of reforms to provide farmers with "sustained and equitable" access to water for irrigation.
- ▶ Commission recommend to Expand outreach of formal credit system; reduce crop loan interest rates to 4%; provide moratorium on debt recovery; agricultural risk fund; kisan credit cards for women farmers; integrated credit-cum-crop-livestock human health insurance package; crop insurance across country for all crops with reduced premiums; sustainable livelihoods for the poor, investment in human development; institutional development services, etc.
- ▶ The commission recommended Implementation of a universal public distribution system; reorganising delivery of nutrition support programmes on a life-cycle basis.
- ▶ Providing affordable health insurance at primary healthcare centres in villages; national rural health mission to be extended to suicide hotspots on priority basis; state level farmers' commissions with representatives of farmers, restructuring of microfinance policies that may serve as a sort of livelihood finance; covering all crops by crop insurance; village to be the assessor and not the block, social security net that gives old age support with health insurance and aquifer recharge and rain water conservation; plans for decentralised water usage etc.

## Miscellaneous News

### PREMJI TO GET CARNEGIE MEDAL FOR PHILANTHROPY

#### Context:

Wipro Chairman Azim Premji is among the honorees of this year Carnegie Medal, considered the most prestigious prize in Philanthropy, for his efforts to reform India's public school system.

#### Contribution in the Philanthropy:

- ▶ After transforming Wipro into a leading international corporation, Premji turned his

attention toward the inequities in Indian society through efforts to improve the country's public school system.

- ▶ This extraordinary undertaking is driven by the Azim Premji Foundations direct field work, currently serving seven states and over 300,000 schools and with plans to expand.
- ▶ The foundation went on to establish the Azim Premji University in 2011, with a focus on school education and related fields of human development.

- ▶ Forty-six per cent of the university's student body comes from villages and small towns, with a majority committing to work in the social sector after graduation.
- ▶ The foundations university and field institutions work synergistically toward the goal of creating a more equitable and just India.

**About The Carnegie Medal of Philanthropy:**

- ▶ In the memory of Andrew Carnegie and his philosophy of giving—what he called the business of benevolence- The Carnegie Medal of Philanthropy honorees, past and present, personify the ideals of Carnegie's vision, seeking through their giving to create a world of positive change.

**CENTRE LAUNCHES LIVABILITY INDEX TO RANK 116 CITIES****Context:**

The Urban Development Ministry has initiated the exercise to rank 116 cities including smart cities and 47 million plus cities on a newly-developed Liveability index. This project is funded by World Bank. Appointment of a consortium companies to conduct field surveys.

**About the Index:**

- ▶ The Liveability Index would rate the cities on 79 parameters including how they fare in terms of grievance redressal of citizens, pollution, availability of water and power, online citizen services, upkeep of historical buildings, increase in tourist footfalls, crime rate, extent of crimes recorded against women, children and elderly, availability of traffic surveillance system and education.
  - Maximum weightage (40%) would be given to physical infrastructure, which would include water, energy, waste, and housing among other aspects.
  - The index would chart a city's progress against various standards under four categories - institutional, social, economic and physical.
- ▶ Andhra Pradesh topped the list scoring 96.06% marks. Others who received the incentive fund in order of merit were; Odisha (95.38%), Jharkhand (91.98%), Chattisgarh (91.37%), Madhya Pradesh (90.20%), Telangana (86.92%), Rajasthan (84.62%), Punjab (77.02%), Kerala (75.73%), Goa (75.38\*), Mizoram (75.00%), Gujarat (73.80%), Chandigarh (72.73%), Uttar Pradesh (70.67%) and Maharashtra (70.52).

- ▶ Marks scored by these States were considered for deciding the quantum of incentive with high scorers getting more.
- ▶ Reform incentive fund for the next three financial years will be increased from the present allocation of Rs.900 cr to Rs.10,000 cr to promote next generation reforms that would make a substantial difference to urban governance and service delivery and resource mobilization by urban local bodies.

**INDIAN NAVAL MATERIAL MANAGEMENT SERVICE****Context:**

The Union Cabinet chaired by the Prime Minister has approved constitution of an organized Group 'A' Engineering Service, namely Indian Naval Material Management Service (INMMS) and consequent changes in cadre structure of existing Group 'A' cadre of Naval Store Officers of the Indian Navy.

**Significance of the step:**

- ▶ Constitution of an Organized Group 'A' Service would attract the best talents available and bring in technically qualified Material Managers. It will improve the functional efficiency of Material Management of Naval Stores and ensure operational readiness of the Navy at all times.
- ▶ The proposed INMMS would attract the best talents available and will provide a reservoir of technically qualified Material Managers for handling the Materials Management functions of Indian Navy.
- ▶ It will improve the functional efficiency of Material Management of Naval Stores and ensure operational readiness of the Navy at all times as well as provide better career prospects for the incumbents.

**What is Indian Engineering services (IES)?**

Indian Engineering Services (IES) are the civil services just like IAS, IFS and others in the list. Indian Engineering Services cater to the technical and managerial functions of the Government of India. It has a huge demand among the engineering graduates in India.

**OPEN DEFECATION FREE STATES****Context:**

- ▶ Under the Swachh Bharat Mission Gramin (SBM-G), rural Haryana and rural Uttarakhand and have declared themselves as the Open Defecation Free (ODF) States of India.

## How many Open Defecation Free (ODF) states are in India?

- ▶ Sikkim
- ▶ Himachal Pradesh
- ▶ Kerala
- ▶ Uttarakhand
- ▶ Haryana

### Total area declared as ODF:

- ▶ With the total number of ODF States now rising to 5, more than 2 Lakh villages and 147 districts have also been declared ODF across the country.

## DOKLAM PLATEAU

### Context:

- ▶ Doklam Plateau in Bhutan has become the bone of contention between India and China, sparking a perilous military standoff.

### Location of the plateau

- ▶ Doklam Plateau is an 80-89 square km plateau with average altitude of 4,000-4,500 meters, located in Western Bhutan. It is a disputed territory claimed by both Bhutan and China.
- ▶ It juts north into the Chumbi Valley with India (Sikkim) to the north-west, west and south-west and Tibet to the north, east and south-east.
- ▶ The trijunction of India, Bhutan and Tibet is on the north-western edge of the Doklam Plateau where the Batang La post of India is located and north-west of which along the crest line are the Indian defences of Sikkim.

### Recent incident

- ▶ China and Bhutan have agreed via written agreements of 1988 and 1998 that both countries will agree to maintain peace and the status quo in the region.
- ▶ However in June this year, India accused China of constructing a road in the disputed territory towards Doklam plateau, an objection that the Royal Bhutanese Army has also raised. India intervened in the crisis supporting Bhutan's stand and asking China to halt its construction work.

### Why India intertwined?

- ▶ In a 1949 treaty, Bhutan agreed to let India guide its foreign policy and defense affairs. In 2007, the treaty was superseded by a new friendship treaty that replaced the provision

that made it mandatory for Bhutan to take India's guidance on foreign policy with broader sovereignty and not require Bhutan to obtain India's permission over arms imports.

### Significance of Chumbi Valley for China

- ▶ First, China gains proximity to India's North-East and Siliguri Corridor, which connects North-Eastern states to India and Nepal to Bhutan.
- ▶ Second, with access to Chumbi valley, China gets closer to Bangladesh's periphery in the North since only a narrow stretch of land divides Bangladesh from Bhutan.
- ▶ By enhancing connectivity and getting an overarching influence over the Chumbi Valley, China gets a better hold over Tibet, thus weakening any potential cards which India would want to play at a later stage. Further, with well laid out road/railway infrastructure, it also gets an offensive advantage to thwart India's military posturing. According to sources, six roads so far have been built by China near Bhutan's North and North-West areas.

### What should India do?

- ▶ India needs to look inwards and strengthen its defence preparedness and infrastructure construction plans, in order to counter a plausible Chinese military offensive.
- ▶ Second, at the bilateral level, focused efforts are needed to engage Bhutan as a strategic partner, thus sensitizing it about Indian concerns. The role of the Indian Military Training Team (IMTRAT) positioned in Haa district in Bhutan becomes important and needs to be given some attention.
- ▶ India should maximize its soft-power approach, providing an enabling environment in Sikkim for Buddhism to flourish.

## INDIA AND AFGHANISTAN ESTABLISH DIRECT AIR FREIGHT CORRIDOR

### Context:

- ▶ The first flight from Kabul to Delhi establishing air freight corridor was received on 19 June 2017 by the External Affairs Minister Smt. Sushma Swaraj. The arrival of the cargo flight from Kabul to Delhi marked the inauguration of the dedicated Air Freight Corridor.

### Background:

- ▶ The decision to establish an Air Freight Corridor between Afghanistan and India was taken in the meeting between Prime Minister Shri Narendra

Modi and President Ghani in September 2016 during the President's visit to India.

**Significance of this corridor:**

- ▶ The connectivity established through the Air Freight Corridor will provide Afghanistan, a landlocked country, greater access to markets in India, and will allow Afghan businessmen to leverage India's economic growth and trade networks for its benefit.
  - ▶ It would enable Afghan farmers quick and direct access to the Indian markets for their perishable produce.
- ▶ India has been closely working with Afghanistan to create alternate and reliable access routes for the landlocked country.
    - In this context, in January 2015, India had announced its decision to allow Afghan Trucks to enter the Indian Territory through Attari land Checkpost for offloading and loading goods from and to Afghanistan.
    - India is also cooperating with Afghanistan and Iran for development of the Chahbahar Port.