



## TOPICAL ANALYSIS

# BIG DATA & privacy issue

## CONTEMPORARY ISSUES

### 1. Internal Security

- ▶ CAG Report on Ammunitions Management System

### 2. Economic Issue

- ▶ NITI Aayog on Privatization of Urban Health Care
- ▶ How to Cope up with Deglobalization Trend
- ▶ Role of Women Tech Park in Women Empowerment

### 3. Governance Issue

- ▶ Demography and Policy Planning
- ▶ Cow Vigilante Violence: What's the Solution?
- ▶ Lateral Entry into Civil Services
- ▶ Social Audit
- ▶ Law Commission Report on Human DNA Profiling

### 4. Political Issue

- ▶ J&K and Article 35A
- ▶ Ordinance Making Power in India
- ▶ Is President a mere Rubber Stamp?
- ▶ Criminalization of Politics

### 5. Social Issue

- ▶ Issue of Food Wastage
- ▶ Supreme Court Judgment on Dowry

### 6. Environmental Issue

- ▶ Plastic Pollution
- ▶ Eco-bridges and Biodiversity Management
- ▶ Garbage Dumping & its Environmental Impact
- ▶ Wildlife Coalition and their Role

### 7. Science Issue

- ▶ Artificial Intelligence and Society

### 8. International Issue

- ▶ Multilateral Negotiations for a Nuclear Weapons Ban

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- NITI Aayog on Privatization of Urban Health Care
- Demography and Policy Planning
- J&K and Article 35A

### WHAT IS ARTICLE 35A?

ARTICLE 35A (1954) was incorporated in the Indian Constitution through a Constitutional amendment even much before the Constitution of J&K came into existence (1956).

The Article allows the state of Jammu and Kashmir to grant special privi-

leges and rights to permanent residents but denies rights to several others who too have genuine claims.

It debars non-residents of J&K from buying land or property getting a government job or voting in Assembly elections in Jammu and Kashmir.

- Issue of Food Wastage
- How to Cope up with Deglobalization Trend
- Cow Vigilante Violence: What's the Solution
- Lateral Entry into Civil Services

- Plastic Pollution
- Ordinance Making Power in India
- Artificial Intelligence and Society
- Social Audit

### Advantages of social audit

Trains the community on participatory local planning.	Encourages local democracy.	Encourages community participation.
Benefits disadvantaged groups.	Promotes collective decision making and sharing responsibilities.	Develops human resources and social capital

- Eco-bridges and Biodiversity Management
- Law Commission Report on Human DNA Profiling
- Role of Women Tech Park in Women Empowerment
- Garbage Dumping and its Environmental Impact
- Is President a mere Rubber Stamp?
- Wildlife Coalition and their Role
- Criminalization of Politics
- Multilateral Negotiations for a Nuclear Weapons Ban
- Supreme Court Judgment on Dowry

### FALSE CASES OF DOWRY & SEXUAL HARASSMENT

False Dowry Harassment Cases				False Sexual Harassment Cases			
States	2011	2012	2013	States	2011	2012	2013
Rajasthan	5,494	6,241	6,615	Andhra Pradesh	288	228	324
Andhra Pradesh	1,745	1,049	1,157	Haryana	17	16	31
Haryana	685	834	982	Kerala	18	16	11
Assam	655	376	83	Maharashtra	15	7	22
Bihar	141	570	695	Odisha	8	15	19
<b>All India</b>	<b>10,193</b>	<b>10,235</b>	<b>10,864</b>	<b>All India</b>	<b>386</b>	<b>339</b>	<b>482</b>
Total cases Investigated	92,610	1,03,848	1,12,058		8,420	8,601	11,869

Source: NCBS

**Prelims News****79-93****Indian Culture**

- Paika Rebellion
- Aanayoottu

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- Shrinking of Cauvery Delta
- Tigers Numbers Going up
- Safe haven for Endangered Egyptian Vultures
- World's Northernmost Coral Reefs Bleached
- Gangotri Glacier Retreated 0.15 sq. Km. In 9 years
- National Programme on "Scientific Validation and Research on Panchgavya"

**Indian Polity**

- Pradhan Mantri Vaya Vandana Yojana
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- Pradhan Mantri Matritva Vandana Yojana
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**Economy News**

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- NCAER Study on Competitiveness of States
- Second Phase of Bharat Net
- GSTN, CBDT to Share Data
- Even before Demonetization jobs Barely Grew: NSSO Data
- Payment Banks for the Informal Sector

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- Indonesia Renames Part of South China Sea
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- Billionables APP
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## COVER STORY

# Big Data and Privacy Issues

Context

*Recently a 22-year-old boy hacked NaMo app and accessed private data of 7 million people. Also McDonald's delivery app in India leaked personal information about 2.2 million users in which a poorly configured server gave access to the names, emails, home addresses and phone numbers of users.*

*Nowadays, consumers are becoming more wary about what is happening with the vast amount of data now collected about them - with high-profile and damaging data breaches continuing to make the headlines - and it has never been more important to maintain the balance between profit and privacy.*

*In response, the government is mulling a new data protection law to protect personal data of citizens, while also creating an enabling framework to allow public data to be mined effectively. The move assumes significance amid the debate over security of individuals' private data, including Aadhaar-linked biometrics, and the rising number of cyber-crimes in the country.*

## Introduction

Big Data is data whose scale, diversity, and complexity require new architecture, techniques, algorithms, and analytics to manage it and extract value and hidden knowledge from it. In other words, big data is characterized by “3Vs” of Big Data: Volume, Variety (structured and unstructured data) Velocity (high rate of changing) and Veracity (uncertainty and incompleteness).

Big data is growing so much that soon it will be reaching to the largest quantities of data termed as Yotta byte that is currently the largest unit of measurement for digital information there by marking the end of the scale. What is unique about Big Data Technology (BDT) is the scale at which this data collection can take place. For instance, Google has stored petabytes of information about billions of people and their online browsing habits. Similarly, Facebook and Amazon have collected information about social networks. In addition to using this data to improve products or services that these corporations offer, the stored data is available also to highest bidders and governments of nations where these companies are based.

The World Economic Forum noted that data is an asset. It promises a future where decisions about business, life, and society will be taken purely based on data.

The present time period is said to be the ‘age of data’ with private companies — ranging from social media platforms to e-mail services and messaging applications — storing humongous volumes of information, a lot of it outside India’s borders. Both Facebook and WhatsApp have more than 200 million active users in India, with India recently surpassing the United States in terms of the number of Facebook users.

Data-colonising companies use the collected information in myriad ways. Individuals have limited control over how data collected from them are used; in many cases, they do not even have undisputed ownership of their own personal information. Further, the companies' databases are also under constant risk of cyberattacks.

## Big Data in India

**Telecommunication Sector:** Telecommunication usage in India has 900 million mobile accounts, with 600 million unique mobile subscribers. It has more than 30 million PCs. It has more than 400 million Internet users. India's number of mobile-phone subscribers topped 1 billion, becoming the only country after China to cross the milestone. India has millions of 3G, 4G mobile subscribers and getting ready for 5G technologies.

It has more than 23 million unique users on YouTube. Average time an Indian net user spends on social media is 3 hours a day and 70% of Indian internet users watch online videos. In the process, each day, our society creates huge data.

**Aadhaar:** Aadhaar is considered as the world's largest ID platform. Since the first set of Aadhaar numbers were issued in September 2010, some 20 million enrolments take place per month.

It is also the largest biometric programme in the world, as biometric data of each person is captured for all practical purposes. This unique ID is now used for Gas subsidies all over the country.

**Digi Locker** provides a personal storage space in the cloud to Indian citizens. Organizations that are registered with Digi Locker can push electronic copies of documents and certificates (e.g. Driving license, Voter ID, School certificates) directly into citizens' lockers. Citizens can also upload scanned copies of their legacy documents in their accounts signed using the eSign facility provided in Digi Locker. A citizen can provide that without having to submit paper copies. Since its soft launch on 10 February 2015, over 825,000 users have registered to use the digital lockers, with over 1.5 million documents being uploaded.

**National Scholarship Portal:** The portal, officially launched on 1 July 2015, is one stop solution for end to end scholarship process right from submission of student application, verification, sanction and disbursement to end beneficiary for all the scholarships provided by the Government of India. The application process for students will be simplified as there will be a common online application form for all scholarships. Based on eligibility criteria, the system itself suggests the schemes for which a student is eligible. Transparency will be increased as duplicate applications will be eliminated and the successful applicants will have the scholarship amounts credited in their bank accounts.

## Risks and Challenges

Big data's promise has been met with warnings about its cons also. Perhaps the most severe risks and most urgent avenues for research and debate are to individual rights, privacy, identity, and security.

- ▶ Consumers are becoming more wary about what is happening with the vast amounts of data now collected about them – with high-profile and damaging data breaches continuing to make the headlines – and it has never been more important to maintain the balance between profit and privacy.
- ▶ Major breaches have never been more frequent or their impact greater. The hauls of data thieves now commonly reach in the millions. It can also lead to big privacy issue.

- ▶ Such detailed information, in the hands of marketers, financial institutions, employers and government, can affect everything from relationships to getting a job, and from qualifying for a loan to even getting on a plane. While there have been multiple expressions of concern from privacy advocates and government, there has been little action to improve privacy protections in the online world.
- ▶ One major problem with collecting and storing such vast amounts of data overseas is the ability of owners of such data stores to violate the privacy of people. Even if the primary collectors of data may not engage in this behaviour, foreign governments or rogue multinationals could clandestinely access these vast pools of personal data in order to affect policies of a nation. Such knowledge could prove toxic and detrimental in the hands of unscrupulous elements or hostile foreign governments. The alleged Russian interference in the U.S. election tells us that these possibilities are not simply science fiction fantasies.
- ▶ The other major problem is the potential drain of economic wealth of a nation. Currently, the corporations collecting such vast amounts of data are all based in developed countries, mostly in the U.S.
- ▶ Most emerging economies, including India, have neither the knowledge nor the favorable environment for businesses that collect data on such a vast scale. The advertising revenue that is currently earned by local newspapers or other media companies would eventually start to flow outside the country to overseas multinationals.
- ▶ Big data has the potential to discriminate in two ways. First, it can be used to identify aberrant data amongst larger sets, leading to the use of big data to discriminate against specific groups and activities. Second, big data will be used to draw conclusions about large groups of people, and yet some will be excluded because their data is not included in the sets, or the quality of their data is poorer. It is important to remember that data does not equal truth. It only offers correlations — for example, links between two different types of activities.

### Some recent debates related to Big Data and Privacy

- ▶ **Is Aadhaar a breach of privacy?**

Aadhaar was designed as a digital identity platform which is inclusive, unique and can be authenticated to participate in any digital transaction.

This has transformed the service delivery in our country, conveniencing residents and reducing leakages. Direct benefit transfer, subscription to various services and authentication at the point of service delivery are some of the benefits which have accrued.

#### *Privacy issues related to Aadhar*

- ▶ Identification of individuals without consent using the global Aadhaar number.
- ▶ Identification and authentication without consent using demographic and biometric data.
- ▶ Surveillance, tracking or profiling of people beyond legal sanctions using the centralised database, either through external hacks or through insider leaks and collusion.

However, counter argument is that Aadhaar followed the principle of incorporating privacy by design. Collection of biometrics has often been quoted as one of the means of violating privacy. Biometrics are essential to ensure uniqueness, a key requirement for this project. Additionally, these biometrics can be used for authentication for financial transactions, getting mobile SIMs and various other services using electronic KYC (e-KYC).

Another principle of privacy by design states that you should collect only minimal data. As UIDAI was creating identity infrastructure, it was decided that only a minimal set of data, just sufficient to establish identity, should be collected from residents. This irreducible set contained only four elements: name, gender, age and communication address of the resident.

Another design principle was to issue random numbers with no intelligence. This ensures that no profiling can be done as the number does not disclose anything about the person. The Aadhaar Act has clear restrictions on data sharing. No data download is permitted, search is not allowed and the only response which UIDAI gives to an authentication request is 'yes' or 'no'. No personal information is divulged.

When a biometric-based authentication takes place, it is the individual who must participate in the process by submitting his or her biometrics, typically at the service delivery point to prove his identity. Typical examples are at the time of lifting ration from a PDS shop, opening a bank account to provide e-KYC to the bank or submission of Digital Life Certificates by pensioners. The basic purpose of authentication is to facilitate residents in getting service in a digital, paperless and convenient way. As no information is divulged to any agency without the consent of the concerned individual, it cannot be construed to violate any privacy.

Aadhaar authentication and e-KYC ensures that documents cannot be misused. Physical papers are amenable to misuse.

► **McDonalds App Data Leakage**

A security firm Fallible has found that McDonald's delivery app in India leaked personal information about 2.2 million users. A poorly configured server gave anyone access to the names, emails, home addresses and phone numbers of users. It said that sending a simple request to the server produced lots of information about users. Later McDonald's India said it had fixed the app and urged users to install the updated version.

The McDelivery app is operated by Westlife Development which oversees McDonald's restaurants in south and west India. In a statement sent to the Times of India, McDonald's India said the app did not store any "sensitive financial data" such as credit card numbers, passwords or bank account details.

Security firm Fallible said that the lack of strong data protection laws in India and the absence of any meaningful penalty for leaking data meant many companies did little to protect user data. It claimed to have uncovered "more than 50" instances of data leaks at Indian firms.

► **Is Facebook facing privacy and security concerns?**

Facebook users' rising interest in security and privacy concerns in the past 18 months has prompted the company into a more public discussion of these issues. Facebook has come under scrutiny for its privacy and security policies after document leaks by whistleblower Edward Snowden indicated the company allowed the US National Security Agency to access user data via its PRISM covert surveillance programme.

Facebook founder and chief executive Mark Zuckerberg denied the company's involvement. But in response, the company now releases a regular report noting the requests it receives for data from national governments.

Facebook later outlined a number of initiatives on the privacy and security side that they say benefit both Facebook users and the wider security community.

Facebook now has privacy teams in its product, research and engineering divisions. Those divisions see privacy "first and foremost as a design challenge" because unless users can easily understand privacy options and settings, they can't make clear choices.

Options need to be “as intuitive and simple as possible”, avoiding pop-up boxes or a need to go look at another page for information. To this end, in recent months, Facebook has moved to make it easier for users to see who they are sharing information with. Rather than using icons alone to represent the audience for a given post to the site, users now are told who is in that audience. Facebook also more clearly spells out what audience can see a post if the post is re-shared by friends.

### Basic data protection principles

- ▶ **First principle:** Personal data shall be processed fairly and lawfully and, in particular
- ▶ **Second principle:** Personal data shall be obtained only for one or more specified and lawful purposes, and shall not be further processed in any manner incompatible with that purpose or those purposes.
- ▶ **Third principle:** Personal data shall be adequate, relevant and not excessive in relation to the purpose or purposes for which they are processed.
- ▶ **Fourth principle:** Personal data shall be accurate and, where necessary, kept up to date.
- ▶ **Fifth principle:** Personal data processed for any purpose or purposes shall not be kept for longer than is necessary for that purpose or those purposes.
- ▶ **Sixth principle:** Personal data shall be processed in accordance with the rights of data subjects under this Act.
- ▶ **Seventh principle:** Appropriate technical and organisational measures shall be taken against unauthorised or unlawful processing of personal data and against accidental loss or destruction of, or damage to, personal data.
- ▶ **Eighth principle:** Personal data shall not be transferred to a country or territory outside the European Economic Area, unless that country or territory ensures an adequate level of protection for the rights and freedoms of data subjects in relation to the processing of personal data.

### What India can do?

Our neighbor China has apparently understood this dynamics and taken measures to counter this threat. It has encouraged the formation of large Internet companies such as Baidu and Alibaba and deterred Google and others from having major market share in China by using informal trade restraints and anti-monopoly rules against them. India may not be able to emulate China in this way, but we could take other counter-measures to preserve our digital economy independence.

- ▶ The heart of building companies using BDT is their ability to build sophisticated super-large data centres. By providing appropriate subsidies such as cheap power and real estate, and cheap network bandwidth to those data centres, one would encourage our industries to be able to build and retain data within our boundaries.
- ▶ In the short term, we should also create a policy framework that encourages overseas multinationals such as Google and Amazon to build large data centres in India and to retain the bulk of raw data collected in India within our national geographical boundaries.
- ▶ Moreover, we should also build research and development activities in Big Data Science and data centre technology at our academic and research institutions that allow for better understanding of the way in which BDT can be limited to reduce the risk of deductive disclosure at an individual level.
- ▶ This will require developing software and training for individuals on how to protect their privacy and for organisations and government officials to put in place strict firewalls, data backup and secure erasure procedures. In the West, we are already seeing a number of start-ups developing technology that enables users to control who gets access to the data about their behaviour patterns in the digital world.

The government is mulling a new data protection law to protect personal data of citizens, while also creating an enabling framework to allow public data to be mined effectively. The move assumes significance amid the debate over security of individuals' private data, including Aadhaar-linked biometrics, and the rising number of cyber-crimes in the country.

The two main aims:

- ▶ To ensure that personal data of individuals remain protected and is not misused, and
- ▶ To unlock the data economy.

A lot of benefits can be derived from the data that is publicly available, by using technology and big data analytics. The information can be used for the benefit of both individuals and companies.

Currently, India does not have a separate law for data protection, and there is no body that specifically regulates data privacy.

The Ministry of Electronics and Information Technology (MEIT) is working on a new data protection law and a proposal to this effect has been sent to the Prime Ministers' Office for approval.

#### Private Members Bill on Data security

- ▶ Member of Parliament Baijayant Jay Panda tabled the Data (Privacy and Protection) Bill, 2017 in the Lok Sabha recently, proposing the right to privacy as a fundamental right for Indian citizens.
- ▶ Features:
  - The bill follows a rights-based approach and mandates the consent of an individual for collection and processing of personal data.
  - The tabled bill expresses that the last appropriate to alter or expel individual information from any database, regardless of whether public or private, rests exclusively with the person.
  - More importantly, the "exceptions" against this right are defined narrowly, providing for a case-by-case consideration.
  - The bill accommodates the production of an end client confronting position of information assurance officer for grievance redressal, with an arrangement for offer to the Data Privacy and Protection Authority (DPPA).

Apart from the bill a nine-judge Bench of the Supreme Court recently entertained the petition questioning whether privacy is a fundamental human right and is part of the basic structure of the Constitution. The decision taken is on the basis of a bunch of petitions contending that the Aadhaar scheme, is a violation of the citizens' right to privacy. The petitioners have argued that right to privacy is part of Article 21, the right to life, and interspersed in Article 19, though not explicitly stated in the Constitution.

#### Conclusion

Big Data Technology is a tiger the world is destined to ride. It is no longer possible to safely disembark, but staying on is not without its perils. The only way to negotiate this brave new world is to make sure that India does it on her own terms and finds a way to protect both financial rewards and ensure individual privacy and national security through appropriate safeguards.

The government has approved the "Digital India" Plan that aims to connect 2.5 lakh villages to the Internet by 2019 and to bring Wi-Fi access to 2.5 lakh schools, all universities and public places in major cities and major tourist centres. This is indeed a very desirable policy step. But unless we evolve appropriate policies to counter the side effects of the Digital Plan, this could also lead to the unforeseen e-Colonisation of India.

For that a new data protection and empowerment law is needed to ensure that individuals have control over their data and can ask service providers to return their data stored with them.

The privacy issues currently being considered by a nine-judge Supreme Court bench are important, as the larger issue is to get citizens to use their own data more effectively.

## INTERNAL SECURITY

# CAG Report on Ammunitions Management System

## Context

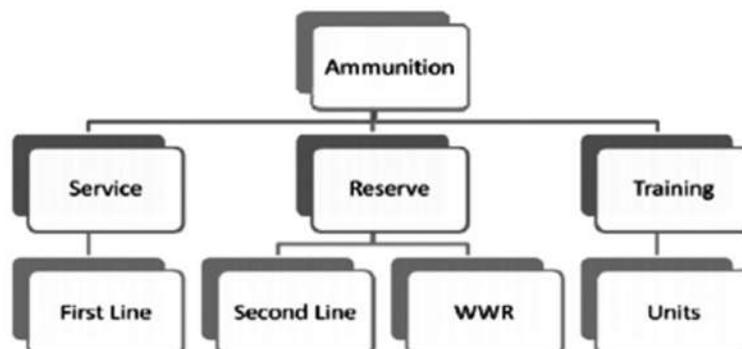
*As tensions remain high with China over the stand-off in Doklam, the army faces shortfall of ammunition, as per the stockholding in September 2016. This was brought out in the Compliance Report of the Comptroller and Auditor General (CAG) which was placed before the Parliament recently. Despite serious concerns highlighted by CAG in earlier report in 2013, no significant improvement took place in the critical deficiency in availability of ammunition and quality of ammunition supplied by the Ordnance Factory Board (OFB).*

*In this context, we shall look at the findings of the recent audit report and recommendations made by CAG to reduce the Ammunition deficit.*

## Introduction

Ready availability of ammunition plays a critical role in overall preparedness of the Army. Director General Ordnance Services (DGOS) at Army Headquarters (AHQ) is responsible for overall management of ammunition in the Army and carries out annual provisioning and procurement. Most of the ammunition for the Army is procured from Ordnance Factory Board (OFB). To meet this requirement, ten factories of Ammunition and Explosives Group under OFB are engaged in production of ammunition and explosives. Balance requirement of ammunition is met from trade and import.

Ammunition in Army is held in three echelons, viz. service ammunition, reserves and training ammunition.



- **First Line Ammunition:** It is the Service ammunition, which is authorized at given scales to a unit on its War/Peace Establishment (WE/PE) for the weapons authorized. It is held with respective units.

- ▶ **Second Line Ammunition:** It is the immediate reserve with a formation, authorized at given scales for all units in the formation. It is the scale of ammunition required for one intense engagement.
- ▶ **War Wastage Reserve (WWR) Ammunition:** It is the reserve intended to meet the requirements for the expected duration of operations or until the indigenous production can get into its stride or other arrangements is made for procurement of ammunition.
- ▶ **Training Ammunition:** Training ammunition is authorized to each unit to maintain proficiency of the troops and formations to ensure that Army is in a fit state for war.

**Issues highlighted by recent CAG report**

No significant improvement in holding of ammunition in War Wastage Reserve (WWR). The current rules stipulate maintenance of ammunition for 40 days of intense period war. As of September 2016, out of 152 types of ammunition, only 31 (20 per cent) met the authorization level of 40 days. Ammunition with the availability of less than 10 days is considered ‘critical’ and any further decrease in the quantity of such ammunition should be an area of high concern. As of September 2016, the stock of 61 out of total 152 types of ammunition (40 per cent) was still in critical level.

Excessive shortage of Fuzes - Fuze is the brain of the Artillery ammunition which is fitted to the shell just before assembly/firing. During follow up audit, it was observed that deficiency of fuzes was 83 per cent as on September, 2016.

Continued shortage of training ammunition - majority of training ammunition remained critical with shortage of 88% as on September 2016. As there was no improvement in the restriction scenario, it was obvious that the shortage of ammunition would continue to hamper the training of the Army in the years to come.

Tardy progress in procurement under Ammunition Road Map – Defence Ministry approved the Ammunition Road Map in July 2013 to build up the stock level upto 50 per cent of 40 day level by March 2015 and the balance deficiency to be made subsequently by March 2019. It aimed to mitigate the existing low levels in ammunition holdings which had a decisive effect on the operational preparedness of the army. 17 procurement cases were prioritized till 2013, however, no case has been fully concluded till September 2016.

Production performance of OFB - During the period from March 2014 to November 2016 also, OFB remained the main source of supply of ammunition catering to 88 to 99 per cent of the total requirement of ammunition of Army.

Year	Number of ammunition				
	Examined in Audit	For which target allotted by Army	For which Army's demand not met	Percentage of slippage (4/3*100)	With more than 50 per cent shortfall
(1)	(2)	(3)	(4)	(5)	(6)
2013-14	48	39	32	82	15
2014-15	48	42	31	74	11
2015-16	48	42	27	64	12
2016-17 <sup>15</sup> (up to Dec. 2016)	48	42	40	95	30

It can be seen from the table that the Army’s demands were not met in respect of 64 to 95 per cent types of ammunition during 2013-17. Despite continued slippages in

supply of ammunition to the Army by the concerned ordnance factories, no mechanism has been introduced by the Board or factories to fix the responsibility for such slippages.

Inadequate Fire control system - Ammunition is a hazardous commodity designed primarily to inflict damage on the enemy in war. However, if ammunition functions prematurely while in trajectory, or at the gun, or in storage, it brings devastation to its own camp. To reduce the potential hazard, a sound firefighting mechanism including timely disposal of defective ammunition should be in place. In spite of the audit frequently pointing out the deficiency of firefighting, demilitarization plant and delay in replacement of defective mines, adequate safety measures were yet to be taken by the Ministry/AHQ. Thus, the depots were functioning with risk of fire. The above observation may be seen in relation to the massive fire breakout at Central Ammunition Depot (CAD), Pulgaon on 31 May 2016.

Other Issues - Inordinate delay in implementation of Computerized Inventory Control Project (CICP), continued high percentage of Return for Rectification (RFR) which indicates lapse of the filling/component making factories in executing mandated 100 per cent Quality Control (QC) checks during various stages of the manufacturing.

### **Recommendation made by CAG to increase Ammunition stock at desired level**

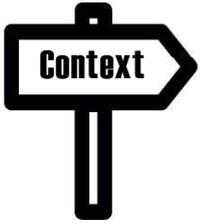
- ▶ Urgent steps need to be taken to modernise the Ordnance Factories and judiciously augment their capacity to produce items required by Army and plug the shortfalls in availability of critical ammunition.
- ▶ Once the production targets for factories are fixed, responsibility needs to be fixed for subsequent slippages.
- ▶ In view of high rate of Return for Rectification (RFR) and the facts that defects were noticed even after the prescribed quality checks, immediate and effective steps needs be taken to make the controls for Quality Control (QC) and Quality Assurance (QA) more robust and accountable.
- ▶ Director General Quality Assurance (DGQA) should ensure that defect cases are investigated and cleared within the prescribed time frame of three months.
- ▶ Effective steps may be taken to establish environment friendly demilitarisation method for disposal of ammunition and explosives.
- ▶ The Ministry may ensure online connectivity among Army Headquarters (AHQ), depots and user units to enhance visibility of assets, speedy issue and receipt to effectively carry out the management of ammunition through a speedy implementation of Computerized Inventory Control Project (CICP), which is already delayed.

### **Conclusion**

The Review of Ammunition Management in Army was taken up to assess the effectiveness of procedures, practices and built-in-controls existing for management of ammunition in Army. While availability of authorized stock against War Wastage Reserve (WWR) to meet the expected duration of operation formed the basic criteria for ensuring the operational readiness of the Army. The current findings indicate that ammunition is not sufficient to fight even a 10 day war. It is important to implement various recommendations mentioned above to counter deficit in Ammunition, given the fact that tension are rising both on Western and Eastern Front.

## ECONOMIC ISSUE

# NITI Aayog on Privatization of Urban Health Care

Context

*Sustainable Development Goal (SDG) 3 intends to "ensure healthy lives and promote well-being for all at all ages" and targets a one-third reduction in premature mortality from non-communicable diseases (NCDs) through prevention and treatment and promote mental health and well-being by 2030. The emergence of NCDs poses a renewed threat to the financial protection of the population, which is related not only to the high costs of treatment, but also compounded by the long duration of treatment for what are often chronic illnesses or long term disabilities.*

*Thus Niti Aayog and the Union ministry for health and family welfare have proposed a model contract to increase the role of private hospitals in treating non-communicable diseases in urban India.*

*Hereby, discussing the model and implications of it.*

## Introduction

The National Programme for Prevention and Control of Cancer, Diabetes, Cardio Vascular Disease and Stroke (NPCDCS), launched in October 2010, aims at institutionalizing the response to NCDs and supplementing state efforts through setting up of NCD Cells at the state level and integrating it within the National Health Mission (NHM) framework. Over the years, services under the NPCDCS have gradually expanded.

Despite concerted efforts at the national and state levels over the last few years in establishing the NCD service delivery network, the system continues to remain constrained with a set of systemic issues such as Constrained fiscal space within states to provide increased allocations for NCDs, large infrastructure gaps, especially in rural areas, and significant gaps in human resources, especially at the level of specialists.

Shortage of infrastructure and human resources for health has led to 72 percent of the population in rural areas and 79 percent in urban areas to seek healthcare in the private sector.

This has exacerbated the situation demanding a multi-pronged response from the Government to augment its NCD response capacity, especially at the secondary levels to decongest tertiary facilities at the state level and expand access to secondary and basic tertiary level services at the district level.

To address some of these challenges, the Government of India is launching a framework for 'Public Private Partnerships for Non-Communicable Diseases in District Hospitals'

## Salient features of the Contract

- ▶ **Sharing of space:** The district hospitals would be required to lease out 30,000 square feet for a 50-bed private hospital or 60,000 square feet for a 100-bed operation. If the state government agrees initially to a 50-bed private hospital, the district administration will have to provide 75% of this space within the already-built part of the government hospital.

Similarly, for a 100-bed facility, it is preferable that a minimum 50 percent space is available within the existing structure of the district hospital.

Further the district hospital should have an average per day OPD of around 1000 patients in the last two years. This is indicative and the purpose is to ensure that the district hospital is reasonably well functioning and has a fair patient load. Both 50-bed and 100-bed facilities may be co-located within the premises of the district hospital.

- ▶ **Services division:** These private hospitals will provide secondary and tertiary medical treatment for cancer, heart diseases and respiratory tract ailments at prices that are not higher than those prescribed under government health insurance schemes. For non-communicable diseases needing these three kinds of specialised treatments, the hospitals will need to have out-patient departments, in-patient beds, beds for intensive care, operation theatres, centre for angioplasty and angiography, laboratories and radiology services.

The district government hospital will be expected to share its ambulance services, blood bank, physiotherapy services, bio-medical waste disposal system, mortuary services, parking facilities, electricity load, in-patient payment counters and hospital security with the private enterprise running out of its campus.

The state government could also provide part of the funds needed by these private players to set up the new hospitals. The district health administration will ensure referrals for treatment from primary health centres, community health centres, disease screening centres.

- ▶ **Other provisions:** Beneficiaries of the government insurance schemes will be able to get treatment at these hospitals but there will be no reserved beds or quota of beds for free services. General patients will also be allowed to seek treatment. Patients not covered by the state insurance and health schemes would be required to pay the full cost.

The private hospitals operating from these public hospital campuses will be able to refer complicated cases either to other government hospitals or other empanelled private hospitals. However, sending patients further to other private hospitals would require the permission of the medical superintendent of the district hospital.

## Procedure of Bidding

The infrastructure of district hospitals would be provided to the private sector players through a two-stage bidding carried out based on technical and financial parameters. The amount of money, the private healthcare company seeks as a viability gap fund (a one-time grant for setting up the hospital) would be one of the criteria to identify the private player. The bidders would be able to apply as a single entity or as a consortium of private companies.

The winner of these bids besides running the hospital services could also be allowed to run other non-medical commercial activities such as an out-patient pharmacy, cafeterias and other concessions.

## Monitoring mechanism

The State Government will provide a list of performance indicators which will be a part of the Concession Agreement.

At its own cost the Private Partner will develop a web-based hospital management information system (HMIS) with full access rights to the State Government along with a management dashboard as a visual interface to provide information against key indicators.

All project data as per identified indicators will be captured on the HMIS and entered by the Private Partner. The State Government may, either directly or through a third party appointed directly by it, undertake performance audits and verification to assess the quality of data being entered in the HMIS.

The Private Partner will submit monthly summary reports of all unusual occurrences. The Private Partner will also submit details of all such occurrence as and when they occur.

The Private Partner will submit overall quarterly reports in the format prescribed by the State Government.

## Challenges

With the PPP model and huge investment by the private players, the consensus has to be formed on the rates that can be charged to patients who aren't covered by National Health Protection Schemes (NHPS), Rashtriya Swasthya Bima Yojana (RSBY), Central Government Health Scheme (CGHS) or state insurance schemes. The draft suggests that where NHPS, RSBY and state insurance schemes aren't applicable, patients cannot be charged over CGHS rates.

Private players may be hesitant in associating in such projects due to the low CGHS rates and higher operational costs and stent price capping.

Further if they get attached, hospital services may be made inaccessible to BPL patients and there may be sudden mushrooming of brokers and middlemen who were bringing in patients for a 'commission'.

## Case study of failure of PPP in health sector

Karuna Trust claims to manage 80 primary healthcare centers (PHCs) in seven states – Karnataka, Andhra Pradesh, Orissa, Arunachal Pradesh, Manipur, Meghalaya and Rajasthan. It has partnerships with different state governments, the Nuclear Power Corporation of India Limited, BOSCH Foundation, Population Foundation of India, Sightsavers, India Development Foundation, MacArthur Foundation, Karnataka Health Promotion Trust (KHPT) and the like.

According to the prototype memorandum of understanding for PPPs between states and not-for-profit organisations, signed by Karuna and all state governments, it is clear that donor contributions had to be made to the Arogya Raksha Samiti (ARS), which would take a decision on such contributions, if it is without attached conditionalities (except conditionality of proper use). If conditionalities were attached, it would be referred to the District Health Society (DHS). The ARS comprises a group of trustees who manage the affairs of the hospital and has representation from Panchayati Raj institutions, NGOs, local elected representatives and hospital staff. All contributions for civil works would be decided by the ARS if the cost were within Rs 1 lakh or referred to the DHS if higher. However, the NGO has directly signed MoUs with several donors and funding agencies without even a token involvement of members of the ARS. This is a clear violation of the terms of agreement with state governments for generating funds for PHC function. The organisation has received

funds for mobile health, dental health, tele-medicine, management of non-communicable diseases, traditional medicine, emergency medicine, drugs, eye care, reproductive and child health and HIV/AIDS by bypassing the ARS completely.

In December 2010, 286 inmates of the Beggars' Home in Bangalore, died at the PHC run by Karuna Trust, with several bodies missing, raising serious concerns. The PHC had stocks of expired drugs and was managed by a doctor whose qualifications were also in doubt. The death certificates of the inmates were signed by nurses and pharmacists and there was no correlation between the death records maintained by the PHC and those maintained by the administration. An detailed inquiry was ordered by the then mission director of the National Rural Health Mission, Mr Selvakumar, "regarding unaccounted dead bodies to ascertain whether organs have been traded or dead bodies have been sold". This doubt arose because death certificates had been issued without any record in the PHC registers.

A public hearing in V.K. Salgar, a village in Karnataka's Gulbarga district, brought out critical failures in the PHC run by Karuna Trust. It revealed poor quality of antenatal care that had led to the deaths of mothers and infants, poor infrastructure, charging patients anywhere between Rs. 5200 -10,000 for deliveries, the lack of basic amenities like drinking water and toilets, poor documentation and management of children with acute malnutrition.

It was only in January 6, 2016 that the Karuna Trust was asked by the Karnataka government to hand over all the PPP PHCs. The government passed an order doing away with the Arogya Bandhu Scheme, under which it had partnered with NGOs, charitable trusts and private medical colleges to run 52 of its PHCs. In fact, the government decided to take back all PHCs following complaints of non-compliance of rules, misuse of funds, lack of accountability and failure to provide quality service to patients.

## Conclusion

The main objective of the National Health Policy 2017 is to achieve the highest possible level of good health and well-being, through a preventive and promotive health care orientation in all developmental policies, and to achieve universal access to good quality health care services without anyone facing a financial hardship as a consequence.

Thus if implemented properly, the PPP model may prove to be fruitful in achieving the health targets mentioned in the National Health Policy.

## GOVERNANCE ISSUE

# Demography and Policy Planning

Context

*There is a predominantly youthful north and a maturing south and west. This demographic divergence between states and regions is important from the policy perspective and forward-looking development planning.*

*Hereby discussing the linkage between Demographic data and policy making. In this article, we are discussing the policy formulation process and implications with respect to age-structure (demographic dividend).*

## Introduction

During the past decade, there have been two significant breakthroughs regarding the impact of demographics on national economic performance. The first has to do with the effect of the changing age structure of the population. The second relates to population health.

Demographic change in India is opening up new economic opportunities. As in many countries, declining infant and child mortality helped to spark lower fertility, effectively resulting in a temporary baby boom. As this cohort moves into working ages, India finds itself with a potentially higher share of workers as compared with dependents. If working-age people can be productively employed, India's economic growth stands to accelerate. Failure to take advantage of the opportunities inherent in demographic change can lead to economic stagnation.

Similarly, healthy population is important for the growth of the nation as it will be able to utilize human resource in better form.

## Benefits of Demographic dividend

India is expected to become one of the most populous nations by 2025, with a headcount of around 1.4 billion. The country's population pyramid is expected to "bulge" across the 15–64 age bracket over the next decade, increasing the working age population from approximately 761 million to 869 million during 2011–2020. Consequently, until 2020, India will be experiencing a period of "demographic bonus," where the growth rate of the working age population would exceed that of the total population. Around 64% of India's population is expected to be in the age bracket of 15–59 years by 2026, with only 13% of the total aged above 60 years.

India is poised to become the world's youngest country by 2020, with an average age of 29 years, and account for around 28% of the world's workforce. In comparison, during the same period, the average age is expected to be 37 years in China and the US and 45 years in Western Europe.

Demographic dividends are a composite of five distinct forces:

- ▶ The first is the swelling of the labor force as the baby boomers reach working age.
- ▶ The second is the ability to divert social resources from investing in children to investing in physical capital, job training, and technological progress.
- ▶ The third is the rise in women's workforce activity that naturally accompanies a decline in fertility.
- ▶ The fourth has to do with the fact that the working ages also happen to be the prime years for savings, which is key to the accumulation of physical and human capital and technological innovation.
- ▶ Fifth is the further boost to savings that occurs as the incentive to save for longer periods of retirement increases with greater longevity.

The demographic dividend is a window of opportunity in the development of a society or nation that opens up, as fertility rates decline when faster rates of economic growth and human development are possible when combined with effective policies. A growing workforce is an advantage for both the manufacturing and services sectors in India. Not only do businesses have access to people that are young and physically fit, it means less cost pressures, particularly on the wage front, because of the availability of labor.

## Issues

Indian higher education suffers from the shortage of high quality faculty, poor incentive structures, lack of good regulation, etc.

As bad as Indian higher education is, the worst problems are in primary education. After all, without a good foundation, subsequent education cannot happen easily and effectively. This is true even for vocational training, not just elite education for the advantaged and talented. At the primary level, there are also serious problems with health and nutrition that impact the effectiveness of education and the capacity for learning.

The highly regarded Indian Institutes of Technology and a small number of other Indian world-class institutions produce only a small number of graduates each year. Many of these graduates leave the country for employment or further education, immediately after graduation.

Further *lack* of employment opportunity is a big bottleneck for gaining benefits from changing demographics in the country. The power of youth needs to be used properly for productive purpose. If youth in the country do not get employment opportunity, they continue to remain consumers.

Another cause of worry is the nature of employment opportunity available in the country. Majority of the people in the country remain self-employed and the second highest contribution in employment comes in form of casual workers.

Basically quality of employment generation is not very good. Majority of Indian youth are not employable because of the quality of education imparted in schools and colleges.

The current trend of unemployment among educated persons is indeed a cause of concern and raises a serious question mark on the benefits of demographic dividend. In many cases, the employment provided by the state is just subsistence level employment, which is meant to ensure that a person remains out of clutches of poverty or leads a sub-standard life. For educated people, such kind of employment opportunity will not suffice.

## Other related issues

The proportion of the elderly has started increasing in the southern states, a trend that began several years ago. Now, the phenomenon has extended to the western, extreme northern and eastern states as well. In the coming decades, these states will require a young workforce to keep offices, factories and institutions functioning efficiently, and also to take care of the elderly. This need is likely to be met by the pool of people in the youthful north, who would be moving to those ageing states.

Demographic dividend also leading to North-South migration. The socio-economic implications of young men heading south, leaving the children and elderly behind, has huge implications.

Women will move too, but their movement will follow a different dynamic. The challenges of moving into new communities that speak different languages and have different cultures need to be understood and addressed. Along with the migrants, the rights and expectations of the locals must also be appreciated.

## Way forward

There is need to gain deeper understanding of migration flows, so that estimations and projections can be made in terms of changing need for housing and infrastructure, healthcare and utilities, education and skills.

The states need to work together to provide portability of identity proof, savings and entitlements, as well as build support systems for families left behind, as well as for those moving together.

Further three-pronged approach needs to be adopted. One, we should change the education system to ensure that it gets helpful in creating skills which add to the employment potential. There is a need to promote manufacturing at a large scale and also identify areas which have high employment generation potential. Promoting MSME sector to generate meaningful employment will be a great idea. There is a need to promote manufacturing to harness low cost benefit in the areas, which India has natural advantage.

Health and longevity are very consequential for economic performance. Health is believed to drive economic growth for four main reasons.

First, a healthier workforce is a more productive workforce.

Second, healthier children tend to have better records of school attendance, and stay in school longer, ultimately resulting in a more educated workforce. Healthy children also have better cognitive function, and avoid physical and mental disabilities that may be associated with childhood illness.

Third, healthy populations have higher savings rates, as people save more in anticipation of longer lives post-retirement.

And finally, healthy populations attract foreign direct investment.

Thus, steps should be taken to improve the health of population.

## Conclusion

The nation urgently needs to take cognizance of the demographic transition and the divergent trends between states and regions. Timely and strategic action can develop human capacities to cater to future needs and build rights-based policies that work for potential migrants, as well as the locals. All adding up to optimise development, employment and collaboration across states and the country.

## POLITICAL ISSUE

**J&K and Article 35A****Context**

*For the past few month the debate over the special constitutional status of Jammu and Kashmir is on and the Chief Minister Mehbooba Mufti said that if the Article 35(A) of the constitution or the Permanent Resident Act 35A - a provision that empowers the state's permanent residents - is tampered with, then nobody in the state will hold the Indian Tricolor. This statement holds significance as the Article 35(A) has been challenged in the Supreme Court.*

*The Article 35(A) is being challenged in the Supreme Court by NGO--We The Citizens--on its legal basis because the article was never presented before Parliament.*

*The present article analyses the debate over Article 35(A) of the Constitution and how does Article 370 gives special status to Jammu & Kashmir over other states.*

**Introduction**

The Article 35(A) was extended to the state through a 1954 Presidential Order which gives protection to the state subject laws in J&K whereby outsiders are not allowed to settle or acquire property in the state.

As a consequence, no one except those defined as 'permanent residents' are entitled to property rights; employment in state government; participation in Panchayat, municipalities and legislative assembly elections; admission to government-run technical education institutions; scholarships and other social benefits.

This Article has denied certain basic rights to many communities living within Jammu-Kashmir for the past six decades.

The Article 35(A) is being challenged in the Supreme Court by NGO - We The Citizens – on its legal basis because the article was never presented before Parliament and executed on the orders of President of India. This provision was implemented in 1954 when the then President Rajendra Prasad used the powers conferred on him by Article 370 to introduce the "Constitution (Application to Jammu and Kashmir) Order 1954".

The legality of Article 35A is being challenged on the grounds that it was not added to the constitution by a constitutional amendment under Article 368.

On the above stated issue Jammu & Kashmir Chief Minister Mehbooba Mufti has noted that attempts to undo Article 35(A) of the Indian Constitution would strike a fatal blow to the nationalists in the state. Kashmiris are apprehensive that such a move would open the sluice gates for a demographic transformation of the Valley which is an objective propounded by nationalist forces as the ideal solution to the Kashmir problem.

### **Special Provisions for Jammu and Kashmir provided in the Constitution of India**

The Temporary, Transitional and Special provisions are provided in part XXI of our constitution. Article 370 deals with the State of Jammu & Kashmir which forms a part of the 'territory of India' as defined in Article 1 of the Constitution, being the fifteenth State included in the First Schedule of the Constitution, as it stands amended.

*The important provisions of the Constitution of Jammu and Kashmir can be summarized as follows:*

- ▶ Territory of Jammu and Kashmir consists of all those areas which were under the sovereignty of erstwhile ruler. These areas include that territory which is at present under the occupation of Pakistan.
- ▶ Out of 123 assembly seats of Jammu and Kashmir, 25 allotted to the Pakistan occupied portion of Kashmir, remain vacant because the situation is unsuitable for election there.
- ▶ Though the executive and legislative powers of the State government cover the entire state, yet these powers do not apply to those areas which come under the jurisdiction of Parliament.
- ▶ The "permanent residents" of Jammu and Kashmir enjoys all rights which are guaranteed in the Constitution of the Country.
- ▶ A majority of not less than two-thirds of the members of the house can amend the Constitution by passing a bill. But the bill cannot make the changes in provisions relating to the relationship between the state and the Union.
- ▶ No law passed by the Parliament regarding the state of Jammu and Kashmir can be applied to the state without the Order of President of India in concurrence of the State government.

### **Implications of Article 35(A)**

- ▶ People get denied 'permanent resident status' in Jammu Kashmir, thus they cannot get a job in the State Government.
- ▶ They can't avail the benefits of various social welfare schemes launched by the State Government. No other benefits of any kind have been granted to them. Their children are not entitled to scholarships and freeships available to PRC holders.
- ▶ They cannot get admissions in any state-run professional colleges.
- ▶ They are not even eligible to cast their vote for State Assembly elections.
- ▶ They have no participation in local village panchayats and other self-governing bodies up to the district level.
- ▶ They face big hurdles in getting the Permanent Residence Certificate (PRC) of J&K, without which educated young boys and girls cannot get a government job or admission into educational institutes.

This has brought them down to the level of second class citizens as they have no role in law-making at the state level. Hence, they remain economically, socially and educationally backward.

### **Conclusion**

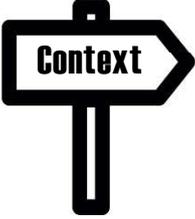
Government need to look into the constitutional basis of Art 35(A) and should defend the provisions of Art 370 to keep the special status of J&K intact.

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**SOCIAL ISSUE**


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# Issue of Food Wastage


**Context**

*Food wastage is fast assuming serious dimensions. According to the Food and Agriculture Organization, one-third of food produced for human consumption is lost or wasted globally, costing the world economy about \$750 billion or Rs.47 lakh crore. The losses represent a waste of resources such as land, water, energy, and other inputs. This alarming increase in food wastage is generating nearly 3.3 billion tonnes of greenhouse gas emissions, thereby severely impacting the environment.*

*In this context, we shall try to examine the issue from socio-economic and environmental perspective, look at ways in which such wastage could be reduced and analyze best practices adopted by other countries.*

## Introduction

Food loss and food waste refer to the decrease of food in subsequent stages of the food supply chain intended for human consumption. Food is lost or wasted throughout the supply chain, from initial production down to final household consumption.

The decrease may be accidental or intentional, but ultimately leads to less food available for all. Food that gets spilled or spoiled before it reaches its final product or retail stage is called food loss.

This may be due to problems in harvesting, storage, packing, transport, infrastructure or market/price mechanisms, as well as institutional and legal frameworks.

Harvested bananas that fall off a truck, for instance, are considered food loss. Food that is fit for human consumption, but is not consumed because it is or left to spoil or discarded by retailers or consumers is called food waste.

## Impact

Food wastage have multiple socio-economic and environmental impacts.

### *Social Impact*

Socio-economic issue arises due to high incidence of hunger.

The number of hungry people in India has increased by 65 million more than the population of France. According to a survey by Bhook (an organization working towards reducing hunger) in 2013, 20 crore Indians sleep hungry on any given night. About 7 million children died in 2012 because of hunger/malnutrition.

Women and children continue to be the most vulnerable, with 156 million stunted children in the world and 40% women anaemic. Add to this the fact that the world adds 200,000 new people to its population every day, of which India adds 58,000. This translates to the need to feed two billion more people by 2050 and to support a

higher demand for major crops, estimated to increase by 50%, from 2.5 to 3.5 billion tonnes.

### ***Economic Impact***

Indians waste as much food as the whole of United Kingdom consumers. According to the United Nations Development Programme, up to 40% of the food produced in India is wasted, which in monetary terms amounts to Rs.50,000 crore.

Wasting food increases the cost of food. This is due to the fact that resources used to grow and transport food, like water and energy, cost money. As we need to grow more food, because of waste and increasing populations, cost for food goes up.

Those costs translate to higher costs at the store, making it harder for low-income people to afford enough to eat.

### ***Environmental Impact***

The wastage of food entails loss of considerable amount of resources in the form of inputs used during production. For example, 25% of fresh water and nearly 300 million barrels of oil used to produce food are ultimately wasted.

The increasing wastage also results in land degradation by about 45%, mainly due to deforestation, unsustainable agricultural practices, and excessive groundwater extraction. Wastage results in national economic loss.

The energy spent on preparation of food which is finally wasted result emission of carbon dioxide. Decay of waste food also leads to the harmful emission of other gases in the atmosphere, for instance, decaying of rice produces methane. Food waste emission has a major impact on climate change and results in greater carbon footprint.

## **Steps**

It has been also observed that food waste and loss occurs differently in developing and developed countries. In developing countries, food waste and loss occur at early stages of the food value chain. This can be associated with lack of support to farmers, poor/non-scientific harvesting techniques, weak infrastructure, storage, cooling and transport facilities.

In developed countries, food waste and loss occur largely at retail and consumer stages. Being a developing country India need to plug in food wastage at early stages of food value chain.

Thus following steps need to be taken to plug in the loopholes:

- ▶ In order to make progress in reducing the burden of this problem, the Government needs to primarily contain the excessive wastage in transportation and improve storage facilities that are currently 50 per cent less than required.
- ▶ Besides this, the Government must also focus on food processing technologies that are both advanced and affordable so that food preservation practices can be encouraged thereby saving food from wastage. The Government can speed up research in Nano technology with the help of which eco-friendly and healthy food preservation applications can be invented that are helpful in preserving food for longer duration and keeping farm produce fresh.
- ▶ The Government must make it mandatory for the food retailers across the country to adopt technology standards that allow incentives for the customer to purchase perishable products that are approaching their expiration dates. This will help reduce food wastage, maximizes grocery retailer revenue, and effectively reduces the global carbon footprint.

- ▶ With studies suggesting that nearly nine tonnes of food is wasted every year in each wedding hall in the city, and with organizers pushing the boundaries of lavishness, government has proposed to regulate weddings and other functions in the State which has been debated for long, but little action has been taken. In 2015, a private member Bill, Karnataka State Marriages (registration and miscellaneous provisions) Bill 2015, was introduced in the hope of imposing a tax on extravagant weddings. Many city-based organisations are tackling this issue along with hunger. Some of these organisations collect excess food from parties and distribute it in slum areas.
- ▶ Some businesses are involved in value added processing, making healthy fruit snacks from surplus produce or donated food. Mobile apps are being developed for crowdsourcing data on hunger spots and which take requests for donation of excess food. Various community level initiatives like gleaning networks, food banks and social supermarkets can help in redistributing food to 184 million undernourished Indians in need; thus helping fight poverty.

### Best Global Practices

India should also take a cue from global practices that are both unorthodox and innovative in order to tackle food wastage problem.

For instance, France has passed a legislation requiring supermarkets to either give unsold food to charity or send it to farmers for use as feed and fertilizer.

Similarly, in Canada unused and unspoiled food from retailers, manufacturers, restaurants, and caterers is channelized to hungry citizens.

In United Kingdom major supermarket retailer recently launched a 'waste less, save more' campaign, which includes technology based talking bins that give advice as rubbish is put in them, technology for home fridges that tracks when food is about to go bad, educational programmes for schools and community centres.

In Singapore, the official authorities launched an outreach programme in November 2015 to encourage the adoption of smart food purchase, storage and preparation habits that help consumers save money while reducing food wastage, programme features educational materials publicised on newspapers, television and through community-led initiatives.

Italy adopted a law that earmarked approximately \$10 million to reduce one million tonnes of wasted food a year by offering incentives to businesses who donate food to charities, including \$1.8 million annually to fund innovative food waste reduction projects, as well as \$2.5 million to buy food for the poor.

### Conclusion

The World Economic Forum warns that food shortages represent one of the biggest risks to global stability over the next decade as countries are increasingly affected by climate change. It is time to recognize this colossal scale of waste and take appropriate action that not only benefits humanity but the environment as well.

Further, to provide even a baseline and dignified quality of life to its people, India has to address enhancing agricultural productivity, crop diversification and eliminating food loss and waste with a firm resolve, backed with the right and timely action.

## ECONOMIC ISSUE

# How to Cope up with Deglobalization Trend

Context

*Deglobalization is the process of diminishing interdependence and integration (movement of goods, services, Capital and people) between countries around the world. It is widely used to describe the periods of history when economic trade and investment between countries decline. It stands in contrast to globalization, in which countries become increasingly integrated over time. The current trend of Deglobalization is a major hurdle for EME like India which need to create 10-12 million jobs for it's increasing workforce.*

*In this context, we would try to decipher reasons for deglobalization in current era and ways to tackle it which includes focusing on internal market and diversify exports.*

## Present era of Deglobalization

Since the second half of 2011, global trade growth has remained slower than the expansion in world GDP, while in the 25 years before the global financial crisis, trade growth was twice the GDP growth. Thus, the income elasticity of trade has fallen sharply in the post-crisis years. Two main developments with roughly equivalent contributions, viz., compositional effects and structural factors, have been the driving forces in the slowdown in trade vis-à-vis economic growth.

Compositional effects include shift in economic activity and trade from AEs towards EMEs, the declining share of the import-intensive component of global demand and shift in trade from manufacturing to services. These factors may not necessarily be structural and could revert in the medium-term when the global economy recovers fully.

Structural factors, which set in well before the global recession, reflect fundamental shifts working through at least three channels. First, lower transportation costs, removal of trade barriers and increase in multilateral global trade agreements, which contributed to expansion in global trade, have waned. Second, global value chains (GVCs) have slowed down sharply, partly due to rising labour costs in EMEs and partly on account of rising protectionism. Third, financial deepening which facilitated export activity has diminished.

## Inward looking policies

De-globalisation must force the countries to look within, and improve interaction between the domestic markets. Emerging economies, including India, are home to some of the world's poorest. Such communities have not been able to benefit from,

or contribute to, globalisation. This is an untapped potential which must be capitalised through inward-focused economic reforms.

Internet is reducing the cost of delivering benefits to those deprived. Mobile payments in Kenya reduced poverty by 2%. Availability of user data is enabling service providers to offer customised products and services to rural consumers. Innovative models of credit scoring are resulting in the expansion of the target audience for formal financial services.

The poor are also being provided an opportunity to earn interest on their low value savings. Financing modes, integrated with mobile technology, are making it affordable for them to use renewable energy. It is now up to the respective governments to institute structural policies and regulatory reforms. Only then will these economies be able to benefit from these gifts of globalisation, and deal with de-globalisation.

It is important to ensure that the poor are able to effectively compete with their richer counterparts for jobs. Therefore, the government will need to ensure availability of quality education and health services through private sector participation. The cost of access to such services could be reimbursed through direct transfers of basic income to unique ID-linked bank accounts. Targeted basic income should replace inefficient subsidies. Additionally, this will also help the disadvantaged deal with employment-related uncertainties.

Governments will need to dismantle the barriers to free movement of resources within the internal markets. There are multiple rules at state and municipal levels; relating to the acquisition of land, obtaining approvals pertaining to electricity and environment, and sourcing raw material and labour from other states. Taxation and multiple inspections for movement of goods across states impose avoidable costs. However, GST is a welcome step in this context. The cost of doing business for micro, small and medium enterprises (MSMEs) needs to be reduced as well. An agile, digitally equipped private sector will be able to reach out to far-flung areas that have been excluded in the past.

### Diversifying Engagement in International Trade

The slowdown in Advance economies post Sub-prime crisis in US (2008) and Euro zone Debt crisis (2009) is still showing its effects. Advance economies are posturing protectionist stance as evident through US election results and Brexit results. As a consequence, deglobalization trend is evident across globe. In this context, it is important for India to shift focus of international trade from Advance economies to Emerging Economies of South east Asia, Africa, South America and CIS.

**South Asia:** Focus on building regional value chains in different sectors such as textiles, engineering goods, chemicals, pharmaceuticals, auto components, plastic and leather products. An added advantage of such integration will be an expanded role for North East India in regional trade with its consequent development outcomes.

**China:** India shall, inter alia, continue to pursue market access issues and removal of Non-tariff Barriers on India's exports of pharmaceuticals and agro commodities, seek to obtain market access for Indian IT Services and encourage other service sectors such as tourism, film and entertainment; and seek Chinese investment in boosting India's manufacturing capacities, while remaining vigilant against any unfair trade practices.

**Africa:** Agro-processing, manufacturing, mining, textiles, FMCG, infrastructure development and construction are highly promising areas for Indian companies. India is engaging actively with countries and regional groupings in Africa for trade agreements, project exports and capacity building initiatives.

**Latin American and Caribbean region:** Efforts will also be made to diversify India's exports to the region and to encourage project exports through easy access to credit facilities.

**Commonwealth of Independent States:** India's economic engagement with most of the countries in the CIS region, except Russia, has been much below its potential. Therefore, the focus of action should be to promote investment in the exploitation of raw materials; to operationalise the International North South Transport Corridor; to promote export of products of India's strength and to help facilitate investments in some of these countries to build value chains, for example, in the pharmaceutical sector.

## Conclusion

In the wake of deglobalization trend, it is important to focus on domestic structural reforms which can unleash the potential of domestic economy. Implementation of GST is a step in right direction; focus should be on building infrastructure and use of technology in delivering benefits. At the same time, India shall try to diversify its export market and focus on prospects in South East Asia, Central Asia, Africa and South America.

## GOVERNANCE ISSUE

# Cow Vigilante Violence: What's the Solution

## Context

*In India, cows are considered sacred by a large segment of the population. But, in recent times cow vigilante violence involving mob attacks has increased. This may in long run ignite communal passion and widespread violence. In this context, we shall try to understand various facets associated with the issue.*

## Issue

*"I would not kill a human being for protection of cow, as I will not kill a cow for saving a human life, be it ever so precious" – Mahatma Gandhi*

Cattle Slaughter in India is a taboo, because according to Hindu beliefs, cow is considered to be sacred animal, as it provides us with life-sustaining milk. Millions of Hindus worship and revere cows. The cow is also known as symbol of wealth, strength, peace, abundance and selflessness. Hindu religion gives cow, the status of Mother to the level of goddesses. Throughout the Vedic Scriptures, there are verses which give impressions that cows should be cared and protected.

Article 48 of Indian Constitution mandates every citizen to preserve cow and milch animals. It is the fundamental duty of every Indian Citizen to have compassion for all living creature under Article 51 A(g). In regard of these articles various laws are made to prevent slaughter of cow in most of the states across India.

In State of Chhattisgarh, Karnataka, Madhya Pradesh and Uttar Pradesh, if somebody is caught killing cow or selling their meat he/she will be imprisoned for 7 years. The imprisonment is 10 years for cow slaughter in Haryana, Jammu and Kashmir, Jharkhand and Rajasthan. However, like any other law or decree in our country, it is not being enforced effectively. Cows are routinely shipped across provincial borders. There are 3,600 legal slaughter houses in India whereas 30,000 are running illegally. This shows that despite cow having legal immunity from slaughter they are routinely being slaughtered. Actions of Cow vigilantes should be seen in this context as they may be filling in the vacuum created by failure of police force to implement the law.

However, protecting cow from being slaughtered could not mean that human killing is justified. Such incidence in long run can flare up communal passion and jeopardize the biggest asset of this country, i.e. Unity in Diversity. So it is important to arrest rising cases of Mob violence.

## Recent increase in Violence

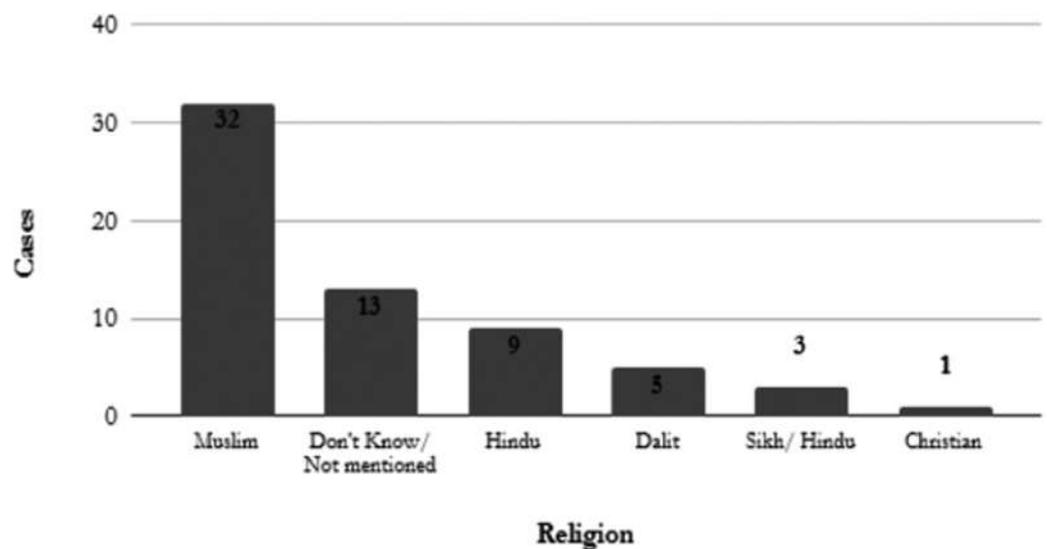
Since May 2015, a violent vigilante campaign against beef consumption has led to the killing of at least 10 Muslims, including a 12-year-old boy, in seven separate incidents of mob violence. In July 2016, in Gujarat, vigilantes stripped four Dalit

men, over suspicions of cow slaughter. In a number of cases, the attackers have also robbed their victims of cash and cell phones, and damaged their property.

In the first six months of 2017, 20 attacks were reported—more than 75% of the 2016 figure, which was the worst year for such violence since 2010. These attacks were reported from 19 of 29 Indian states, with Uttar Pradesh (10), Haryana (9), Gujarat (6), Karnataka (6), Madhya Pradesh (4), Delhi (4) and Rajasthan (4) reporting the highest number of cases.

No more than 21% (13 of 63) of the cases were reported from southern or eastern states (including Bengal and Odisha), but almost half (6 of 13) were from Karnataka. The only incident reported in the northeast was the murder of two men in Assam on 30 April, 2017.

### Cow-Terrorism Attacks: Cases By Religion Of Victims/Survivors



#### Law against mob violence

Collective National Campaign against Mob Lynching has drafted a bill known as the Manav Suraksha Kanoon (MASUKA) to begin a legal conversation against lynch mobs. The Bill explains that these efforts are to incorporate a specific provision into the existing law, i.e., to amend the existing Article 21 of the Constitution to address crimes related to mob violence.

#### Provisions of the Bill are as follows:

- ▶ The Bill enjoins penalties of a minimum of ten years imprisonment on public servants for “acts of omission”.
- ▶ The Bill criminalizes the act of mob violence as well as acts of omission by public servants.
- ▶ Provisions such as the establishment of Special Courts for the trial of mob violence, with judges for the same being appointed by a collegium of the five senior-most judges of the High Court are in the Bill.
- ▶ The Special Courts shall also have the additional responsibility of receiving complaints of mob violence, and has the responsibility of setting up Special Investigation Teams (SIT) and appointing a public prosecutor. The SIT and public prosecutor, besides reporting to the Special Court, shall also be under the supervision of the Supreme Court (via the appointment of an amicus curiae).

- ▶ Punishment of up to life imprisonment for those found guilty of engaging in mob violence, and special compensation and witness protection are also included in the Bill.
- ▶ The most significant portion of the Bill is, however, the awarding of penalties on public servants for failing to investigate properly due to malafide intentions or willful neglect of their duties.

## Conclusion

It is important that law enforcing agencies must step up effort to enforce the cow protection law, so that people do not have to come up on street in the form of Cow vigilantes, at the same time those who resort to violence shall be punished as per provision of law. However, this will only address the issue from the Supply side. There exists demand for beef which is a reason for cow slaughter. In this case community leaders should take up the issue and discourage beef eating practice within their community as majority population in this country has sentiments attached with Cows. Recently, The All India Shia Personal Law Board (AISPLB) has adopted resolutions against cow slaughter which is a welcome step.

India is a diverse country with people from different faith living peacefully and adjusting with each other thereby ensuring 'Unity in Diversity'. It is important that all communities should be vigilant towards each other's tradition and religious beliefs to ensure that all can live peacefully with mutual Respect.

## GOVERNANCE ISSUE

# Lateral Entry into Civil Services



*Recently, PMO has instructed the Department of Personnel and Training to prepare a proposal for middle-rung lateral entry in ministries dealing with the economy and infrastructure. This is the change in stance which earlier favoured Career based civil servants, especially IAS on top and middle positions of the government. The starting estimate of around 40 individuals comprising of successful, entrepreneurs, academicians and social workers, would be taken in through lateral entry, mainly at the joint-secretary level.*

*In this context, we would try to understand why there is a need to hire private individuals given understanding reached in Constitutional assembly debate.*

## Introduction

The quality and effectiveness of a nation's civil servants are critical ingredients in determining its standards of governance. Civil servants, particularly, at senior levels, should possess the following key attributes - leadership, vision, wide comprehension, professional competence, managerial focus, ability to innovate and bring about change and to work in a team. Selection to leadership positions in the civil services is thus vital to the whole process of governance.

## Flaws in Senior Executive Service

It comprises of a group of civil servants who are appointed to top-level positions across ministries, departments and agencies. It usually occupies policy-making positions or heads major operating agencies or line departments. The role of the SES has been to provide leadership and management to improve the performance of government organizations. The SES provides a useful bridge between policy making and implementation. Based on their domain knowledge and experience in the sector, the SES is in a position to present information to the political executive in a manner that makes it possible for effective policy choices to be made.

However, the flaws in Indian system are:

- ▶ The assurance of a secure career path has been held to be the career-based system's biggest lacuna.
- ▶ The weakness in practice is seen to have been compounded by a heavy reliance on seniority, an inadequate annual reporting system and frequent transfers.
- ▶ It has discouraged initiative by reducing competition in the higher echelons of government. It has been difficult not only for highly qualified persons from

outside government, but also for high performers from other services to get selected for top civil service positions.

- ▶ It has also been alleged that the quasi-monopolistic hold of the career civil services on senior management position breeds complacency, inhibits innovative thinking and prevents the inflow of new ideas from outside government.

### Rationale for lateral entry

Administrative systems world over came under pressure, as public management became increasingly complex. Administrators now had to implement economic development programmes, and expand services in health, education, agriculture and other areas. In India, they are also required to lead multi-disciplinary teams that supervise functioning of banks, regulate the environment, advise on macro-economic policies, represent the country at the WTO, negotiate tax treaties, coordinate centre-state financial relations, etc. The establishment of new development and poverty alleviation programs, and the emergence of the bottom-up system of Panchayati Raj have further complicated the administrator's role.

Thus, the need for specialized skills and knowledge policy-making and implementation has increased.

Lateral entry system may help tide over the current deficit of middle level officers in the central government but does not address a much bigger problem – the overall 20% shortfall of IAS cadre officers alone in 24 state cadres. The Baswan Committee (2016) has shown how large states such as Bihar, Madhya Pradesh and Rajasthan have a deficit of 75 to over 100 officers and their unwillingness to sponsor officers to go to the Centre on deputation is understandable.

The counter argument, however, is that the All India Services (and the IAS in particular), provide a unique link between the cutting edge at the field level and top policy making positions as has also been mentioned by the First ARC and by the Sarkaria Commission. This bridge between policy making and implementation, while crucial to all systems, has been of strategic significance in the Indian context, given the regional diversity of the country and was an aspect of the British administration in India which was consciously adopted by our Constitution makers.

It is also argued that exposure and sensitivity to the country's complex socio-political milieu and to the needs of the common man, which widespread field experience provides to these Services, may not be available in the private sector, since the private sector does not have the same width and depth of exposure to this type of field experience. Lateral entry only at top level policy making positions may have little impact on field level implementation, given the multiple links in the chain of command from the Union Government to a rural village.

- ▶ The idea of lateral induction is not new. It was recommended by the 2nd Administrative Reform Commission, high level committees (Surinder Nath Committee and the Hota Committee in 2003 and 2004) appointed by different governments and a plethora of think tanks.
- ▶ Lateral entry is not entirely new in India. Domain experts have been brought in from outside the services to head various committees, advisory bodies and organizations. Manmohan Singh, Nandan Nilekani, Montek Singh Ahluwalia, Vijay Kelkar, Arvind Subramanian and Raghuram Rajan are all cases in point. All these professionals have gained reputation in government which means lateral entry is not a bad idea. Both the Niti Aayog and the Planning Commission have allowed for lateral entry. And some states such as Jharkhand are now experimenting with it as well.

### Likely pitfalls

Once the process is set in motion, it will become a precedent for all time and may well be cited and manipulated by future governments at the Centre and the states to

plant people regardless of their worth. In the past few years different state governments have inducted and promoted “committed” (malleable) officers as a reward for favours done.

Others have entrusted policy-making to people with no knowledge of fiscal prudence or administrative propriety- leave aside the finer nuances of the Constitution or the law, to steer the ship of State.

Once the Centre opens the doors to lateral induction through its own machinery, it can lead to a deluge of inductions in the states and at the Centre too in times to come.

Entrusting the job of selection to a body supervised by the Union Public Service Commission would be the only alternative to ensure that merit is the sole criteria and no scope exists for preferential induction on grounds of region, community or ideological allegiance.

The move may deter the available talent. Any dilution of the trajectory of career growth would discourage competent and motivated people to perform.

The difficulty in measuring performance in government is another obstacle to be dealt with. It is not easy to assess the performance of a middle level and top level bureaucrats as policy decisions taken by them might not show immediate success, complexity and amorphous nature of the job etc. Similarly, it would be difficult to measure the performance of lateral entrants and thus assessment on their fitness for a particular job.

### Foreign models

Comparisons with other countries may be relevant in theory but is not so in practice. One has to bear in mind the difference between a career-based system — India, France, Italy, Japan, Korea and Spain are examples thereof - and position-based systems which function in countries like Australia, New Zealand and in the US. In the career-based system the advantage is a commonality of a working culture and effective networks which facilitate speed of communication and understanding. The well-known shortcomings are the spread of complacency, an adherence to the status quo which kill new ideas. A position-based system is firstly political in nature and often transitory. It cannot be merged into a career based system without taking care to imbue the induction system itself with the highest degree of transparency and independence.

### Conclusion

Lateral entry is demand of time due to lack of internal human resource (civil servants) with required skills, past experience has shown that private individual when tasked with job have deliver but there is a need for a robust selection procedure. However, India’s civil services need reform. There is little argument about this. Internal reforms such as insulation from political pressure and career paths linked to specialization.

## ENVIRONMENTAL ISSUE

# Plastic Pollution

**Context**

*Plastics are synthetic materials that are made from synthetic resins or organic polymers. Examples of these polymers include nylon, PVC, and polyethylene.*

*The growing rate of plastic pollution is worsened due to the rising consumption and population growth. Plastic pollution has increasingly becoming a major nuisance and poses significant threats to the entire environment leading to land, air, and water pollution.*

*Plastics also impacts the natural environment and has grave consequences for humans, wildlife, and plants since they contain numerous toxic compounds.*

*Hereby, analysing the impacts of plastic pollution in detail.*

**Introduction**

Plastic pollution involves the accumulation of plastic products in the environment that adversely affects wildlife, wildlife habitat, and humans. The prominence of plastic pollution is correlated with plastics being inexpensive and durable, which leads to high levels of plastics used by humans. However, it is slow to degrade. Plastic pollution can unfavorably affect lands, waterways and oceans.

**Data related to Plastic pollution**

- ▶ A 2015 Central Pollution Control Board survey found that 60 of India's major cities generated 15,000 tonnes of plastic waste every day, adding to about 12.7 million kg of plastic that enters the earth's oceans. This figure could double in the next decade.
- ▶ India generates 56 lakh tonne of plastic waste annually. Delhi generates close to 7,000 tonne of waste every day. (of which over 10 per cent is pure plastic) which cannot be disposed even by waste-to-energy plants because of environmental reasons.
- ▶ According to a 2014 report of the United Nations Environment Programme (UNEP), "the overall natural capital cost of plastic use in the consumer goods sector each year is \$75 billion". This will only go up with the rising consumerism and the increasing use of plastic.
- ▶ According to a recent article in *The Guardian*, a million plastic bottles are bought across the world every minute. However, plastic bottles are not the only problem. There are smaller forms of plastic, no greater in size than 5 mm, called microbeads. Many cosmetics and toiletry products — ranging from face washes to toothpastes — are used today. Their abrasive nature lends itself to use in industries such as petroleum, textiles, printing and automobile.

- ▶ As per recently released World Economic Forum (WEF) report, oceans will have more plastics than fish by 2050 if the ongoing practice of dumping plastics continues. Every year at least 8 million tonnes of plastics leak into the ocean, which is equivalent to dumping the contents of one garbage truck into the ocean every minute. Presently there are over 150 million tonnes of plastics in the ocean.
- ▶ Plastic waste produced every day in major cities:
  - Delhi (689.5 tonnes).
  - Chennai (429.4 tonnes).
  - Kolkata (425.7 tonnes).
  - Mumbai (408.3 tonnes).
- ▶ Daily addition to untreated plastic:
  - Delhi (275.6 tonnes).
  - Chennai (171.6 tonnes).
  - Kolkata (170 tonnes).

### Causes of Plastic Pollution

- ▶ **Slow Decomposition Rate:**
  - Plastics take hundreds of years to decompose because they have strong chemical bonds that simply make them last longer.
  - For example: Plastic bottles and disposable diapers take up to 450 years to decompose whereas plastic fishing lines take more than 600 years according to the marine conservation reports.
- ▶ **Plastics are Cheap and Affordable to Manufacture:**
  - Because of this quality, plastic has been used to make almost every single utility.
  - Plastics may be cheap and affordable to manufacture, but in a similar manner, it leads to a heavy toll on environmental pollution.
- ▶ **Overuse:**
  - As plastic is less expensive, it is one of the most widely available and overused item in the world today.
  - When disposed, it does not decompose easily and pollutes the land or air nearby when burned in the open air.
- ▶ **Urbanization and Population Growth:**
  - With the increase of population and urban growth, the demand for cheaper and readily available materials increases.
  - In most urban areas, plastics form the greater part of the landfills and constitute about 80% of all the municipal waste.
- ▶ **Disposing of Plastic and Garbage:**
  - Burning plastic is incredibly toxic, and can lead to harmful atmospheric conditions and deadly illness.
- ▶ **Marine Shipping and Fishing Industry:**
  - Remote rural beaches tend to have plastic rubbish washed to the shores which come from the ships, sea accidents, and from the nets used for fishing which is usually made of plastic.

- These plastics leak toxins into the water which affects marine wildlife in various ways and can also be ingested by the marine creatures.
- Once in the water, the plastic debris takes years to decompose, adversely harming marine wildlife and even killing them when ingested.
- ▶ **Fishing Nets:**
  - The nets used for certain large-scale trolling operations are usually made of plastic. These spend long times submerged in water, leaking toxins at will, but they also often get broken up or lost, left to remain wherever they fall.
  - This not only kills and harms local wildlife, but also ensures that pollutants enter the water and fish of the area.

### Effects of Plastic Pollution

- ▶ During polymerization process fugitive emissions are released.
- ▶ During product manufacturing various types of gases are released.
- ▶ Indiscriminate dumping of plastic waste on land makes the land infertile due to its barrier properties.
- ▶ Burning of plastics generates toxic emissions such as Carbon Monoxide, Chlorine, Hydrochloric Acid, Dioxin, Furans, Amines, Nitrides, Styrene, Benzene, 1,3-butadiene, CCl<sub>4</sub>, and Acetaldehyde.
- ▶ Lead and Cadmium pigments, commonly used in LDPE, HDPE and PP as additives are toxic and are known to leach out.
- ▶ Non-recyclable plastic wastes such as multilayer, metalised pouches and other thermoset plastic poses disposal problems.
- ▶ Garbage mixed with plastics interferes in waste processing facilities and also cause problems in landfill operations.
- ▶ Recycling industries operating in non-conforming areas are posing threat to environment to unsound recycling practices.
- ▶ Plastic debris has been responsible for the deaths of many marine organisms, such as fish, seals, turtles, and birds. These animals get caught in the debris and end up suffocating or drowning. Sea turtles are affected by plastic pollution, they are consumers of jelly fish, but often mistake plastic bags for their natural prey. This plastic debris can kill the sea turtle by obstructing the oesophagus.
- ▶ Marine organisms get caught in discarded fishing equipment, such as ghost nets. Ropes and nets used to fish are often made of synthetic materials such as nylon, making fishing equipment more durable and buoyant.

### Solutions to Plastic Pollution:

- ▶ **Recycling Everything**
- ▶ **Educating Businesses**
- ▶ **Using reusable water bottles**
- ▶ **Using reusable bags**
- ▶ **Spreading awareness**

### Government efforts

- ▶ **Plastic Ban in India:**
  - Under the Environment Protection Act, 1986 selling of merchandise into polythene bags is banned.

- Sikkim in the first state of India to achieve the status of plastic bag-free status.
- Gujarat has announced ban on the use of plastic in the State.
- Uttar Pradesh also has enforced the blanket ban on all varieties of polythene bags, irrespective of their thickness.
- ▶ **Government makes use of plastic waste in road construction mandatory :**
  - The government has made it mandatory for road developers to use waste plastic along with bituminous mixes for road construction to overcome the growing problem of disposal of plastic waste in India's urban centres.
  - Road developers will now have to use waste plastic along with hot mixes for constructing bitumen roads within 50 km of periphery of any city that has a population of over five lakh.
  - The ministry will also encourage state governments and rural development ministry to make use of plastic waste mandatory in construction of roads.
  - Plastic will add to the longevity of roads by making them water resistant and also increasing the resistance of roads to changing weather.
- ▶ **Plastic Waste Management Rules 2016**
  - Union Ministry of Environment, Forests and Climate Change (MoEFCC) has notified new Plastic Waste Management (PWM) Rules.
  - Introduced concept of extended producer responsibility (EPR) and Responsibility of waste generators.
  - Rural areas have been included and Gram Panchayats have been given more responsibility.
  - Banned plastic carry bags thinner than 50 microns.
  - It is mandatory for producers to keep record of vendors to whom they supply raw material for manufacturing packaging plastics.
  - Individual and bulk waste generators like offices, industries, commercial establishment must segregate the plastic waste at source.
  - Persons organising public events like marriages, public gatherings are responsible for the management of waste generated during the events.

## Conclusion

Plastic pollution has so many negative effects and they are not confined to one segment of the ecosystem. Different components of the environment are affected and this causes loss of biodiversity. The use of plastic in our daily life should be reduced even as their recycling is increased. This has to involve everyone, from the manufacturer to the user to the waste collector and the recycling authority. We as a society need to create an ecosystem that reduces the use of plastic and prevents its escape into the external environment.

## POLITICAL ISSUE

# Ordinance Making Power in India


**Context**

*Recently the outgoing President Pranab Mukherjee stated that the governments should avoid taking the Ordinance route to promulgate a law it wants, and stressed that this option should be used only in "compelling circumstances".*

*He stated that Ordinance route should not be taken on matters which are being considered or have been introduced in the House or a committee of the House. If a matter is deemed urgent, the concerned committee should be made aware of the situation and should be mandated to present its report within the stipulated time.*

*Thus, in this context analyzing the ordinance making power in India.*

## Introduction

In India, the central and state legislatures are responsible for law making, the central and state governments are responsible for the implementation of laws and the judiciary (Supreme Court, High Courts and lower courts) interprets these laws.

However, there are several overlaps in the functions and powers of the three institutions. For example, the President has certain legislative and judicial functions and the legislature can delegate some of its functions to the executive in the form of subordinate legislation. Ordinance making power of the executive is an example of such overlap.

## Ordinance making powers of the President

Article 123 of the Constitution grants the President power to promulgate Ordinances. This technique of issuing an ordinance has been devised with a view to enabling the executive to meet any unforeseen or urgent situation arising in the Country when Parliament is not in session, and which it cannot deal with under the ordinary law. This power belongs to Parliament.

An ordinance is only a temporary law. The executive in Britain or the USA enjoys no such power. This power is not a new to the Indian Constitution. Articles 42 and 43 of the Government of India Act, 1935, gave the same power to the Governor General.

An Ordinance may be related to any subject that the Parliament has the power to legislate on. Conversely, it has the same limitations as the Parliament to legislate, given the distribution of powers between the Union, State and Concurrent Lists. Thus, the following limitations exist with regard to the Ordinance making power of the executive:

- ▶ **Legislature is not in session:** The President can only promulgate an Ordinance when either of the two Houses of Parliament is not in session.

- ▶ **Immediate action is required:** The President cannot promulgate an Ordinance unless he is satisfied that there are circumstances that require taking 'immediate action'.
- ▶ **Parliamentary approval during session:** Ordinances must be approved by Parliament within six weeks of reassembling or they shall cease to operate. They will also cease to operate in case resolutions disapproving the Ordinance are passed by both the Houses.

Just as the President of India is constitutionally mandated to issue Ordinances under Article 123, the Governor of a state can issue Ordinances under Article 213, when the state legislative assembly (or either of the two Houses in states with bicameral legislatures) is not in session. The powers of the President and the Governor are broadly comparable with respect to Ordinance making. However, the Governor cannot issue an Ordinance without instructions from the President in the cases where the assent of the President would have been required to pass a similar Bill.

### Examples of Misuse of ordinance power

Government has passed the ordinance to nullify a ruling issued by the Supreme Court on 10 July. The court had held that Section 8(4) of the Representation of the People (RP) Act, 1951 was unconstitutional. The section provides that if a legislator is disqualified, then this order will not come into force for three months. In addition, if an appeal is made by such a legislator during this period, then until the appeal is disposed off, the disqualification shall remain stayed. Once the President signs this ordinance, the original position under the RP Act shall be restored.

As a face-saving measure, the cabinet decided that affected legislators will not draw a salary and will not vote in legislatures. But they will have the right to participate in the proceedings of Parliament and/or state assemblies. In effect, the ordinance preserves a very important privilege of legislators, one that ought to end the day they are convicted.

Similarly *Enemy Property Ordinance* was promulgated five times (before passing) to amend the *Enemy Property Act, 1968*, which guards against claims of succession or transfer of properties left by people who migrated to *Pakistan and China* after wars.

As per the proposed amendments, once an enemy property is vested in the Custodian, it shall continue to be vested in him as enemy property irrespective of whether the enemy, enemy subject or enemy firm has ceased to be an enemy due to reasons such as death.

The amendments are aimed at plugging the loopholes in the Act.

### Why rate of ordinances increasing in India?

The reason for rise in the promulgation of ordinances in India is the frequent disruption of Parliament that bars the enactment of legislation. Parliament exists for enacting laws. But it has turned into a place for commotion, fracas and walkouts, stage-managed by political factions for petty political ends. The broad outline of parliamentary democracy states that People elect representatives to Parliament. These members of Parliament debate the appropriateness of legislation to accomplish societal goals. Sets of procedures have been adopted to assure fair and thorough discussion by all. Adjournments caused by disruptions and pandemonium, holding of dharnas by members rushing to the well of the House and unwillingness to participate in discussions are some of the concerns impacting the functioning of the Parliament. When Parliament is disrupted regularly, their capacities to make laws get affected.

Secondly, the government resorts for ordinance to sideline Rajya Sabha.

Passing too many bills through ordinances erodes parliamentary process, where the merits and drawbacks of a bill are debated in Parliament.

### Supreme Court verdict

A seven-judge Constitution Bench of the Supreme Court in Krishna Kumar Singh vs. State of Bihar has held that re-promulgation of ordinances is a fraud on the Constitution and a subversion of democratic legislative processes. The court also held that the satisfaction of the President under Article 123 and of the Governor under Article 213 while issuing ordinance is not immune from judicial review.

The test is whether the satisfaction is based on some relevant material. The court in the exercise of its power of judicial review will not determine the sufficiency or adequacy of the material. The court will scrutinize whether the satisfaction in a particular case constitutes a fraud on power or was actuated by an oblique motive. Judicial review in other words would enquire into whether there was no satisfaction at all.

### Conclusion

Our Constitution is based on the principle of separation of powers and the legislature's primary task is to make laws for good governance. In theory, our parliamentarians are expected to discuss debate and deliberate on various bills introduced before them and after suitable changes, enact them into law. As in many areas, the yawning gap between what the Constitutions contemplates in theory and what actually happens is most evident in the manner in which our Parliament functions.

In theory, members take an oath under Schedule III to preserve, protect and uphold the Constitution. In practice, the oath is modified to paralyse Parliament by entering the well and disrupting proceedings on a regular basis. Indeed, a successful Opposition seems to be one that does not allow Parliament to function. Now, if laws cannot be enacted because Parliament has been made dysfunctional, an ordinance is the only route open to a government. Similarly, the ordinance route is resorted to when the ruling party does not have a majority in the Rajya Sabha.

The executive, or the central government, which is responsible for implementing the law, then becomes the law-maker. For six months, an ordinance is the law of the land and is binding as an Act of Parliament. Later, even if it lapses or is disapproved, all steps taken during its brief life are valid.

Supreme Court has cautioned against using an extraordinary power to perpetuate a fraud on the Constitution conceived with so much faith and vision.

In the end, our Constitution confers different types of power expected to be used in specific situations. The founding fathers expressed the fond hope that it would be sparingly used and our elected representatives must honour the trust reposed in them.

## SCIENCE ISSUE

# Artificial Intelligence and Society

Context

*Researchers predict that over the next decade or so, emerging technological breakthroughs like Artificial Intelligence will once again fundamentally alter jobs and manufacturing processes around the world - but this time, the consequences could be drastically different. Even proponents of Artificial Intelligence acknowledge that its rapid development could make its growth harder for society to digest.*

## Introduction

Artificial Intelligence is a way of **making a computer, a computer-controlled robot, or a software think intelligently**, in the similar manner the intelligent humans think.

These processes include learning (the acquisition of information and rules for using the information), reasoning (using the rules to reach approximate or definite conclusions), and self-correction.

In the recent times, this revolution has come accompanied by massive investment and increasing anxiety about the future of jobs. AI could usher in an era of unprecedented prosperity or unprecedented inequality. Bill Gates, Stephen Hawking and Elon Musk, have a deeper fear—That we may be, “summoning the demon”.

## The Background

Each time, rapid advances in technology has destroyed some jobs, paved the way for new lines of work, and ultimately provided enhanced productivity and lifestyles for the majority. At first, it was steam and water power; then came electricity and mass production; and then IT and computerization.

Unlike the Industrial Revolution and the computer revolution, the A.I. revolution is not taking certain jobs (artisans, personal assistants who use paper and typewriters) and replacing them with other jobs (assembly-line workers, personal assistants conversant with computers). Instead, it is poised to bring about a wide-scale decimation of jobs — mostly lower-paying jobs, but some higher-paying ones, too.

This transformation will result in enormous profits for the companies that develop A.I., as well as for the companies that adopt it.

According to a report, venture capital funding to AI-related start-ups topped \$4.8 billion in 2016, from just \$559 million in 2012. US employers are expected to spend \$650 million to lure AI talent. Microsoft Corp. reorganized some of its businesses to create a 5,000-person strong AI group. Tech leaders also warn about the dangers of unchecked AI and investing in Open AI, a non-profit research group.

**AI: Advantages and Disadvantages**

- ▶ Artificial intelligence can help scientists solve “hard problems” like climate change.
- ▶ Artificial intelligence helps us in reducing the error and the chance of reaching accuracy with a greater degree of precision is a possibility. Artificial intelligence is applied in various studies such as exploration of space. Intelligent robots are fed with information and are sent to explore space. Since they are machines with metal bodies, they are more resistant and have greater ability to endure the space and hostile atmosphere. They are created and acclimatized in such a way that they cannot be modified or get disfigured or breakdown in the hostile environment.
- ▶ Using artificial intelligence alongside cognitive technologies can help make faster decisions and carry out actions quicker.

**AI and the Inequality**

Inequality goes back to the Stone Age. Following the agricultural revolution, property multiplied and with it inequality. As humans gained ownership of land, animals, plants and tools, rigid hierarchical societies emerged, in which small elites monopolized most wealth and power for generation after generation.

The history of the 20th century revolved to a large extent around the reduction of inequality between classes, races and genders. The world of the year 2000 was a far more equal place than the world of 1900. With the end of the cold war, people became ever-more optimistic and expected that the process would continue and accelerate in the 21st century.

In particular, they hoped globalization would spread economic prosperity and democratic freedom throughout the world, and that as a result, people in India and Egypt would eventually come to enjoy the same rights, privileges and opportunities as people in Sweden and Canada. An entire generation grew up on this promise.

***Now it seems that this promise was a lie***

Globalization has certainly benefited large segments of humanity, but there are signs of growing inequality both between and within societies. As some groups increasingly monopolize the fruits of globalization, billions are left behind.

In the present times as artificial intelligence (AI) outperforms humans in more and more skills, it is likely to replace humans in more and more jobs. True, many new jobs might appear, but that won't necessarily solve the problem.

Humans basically have just two types of skills – physical and cognitive – and if computers outperform us in both, they might outperform us in the new jobs just as in the old ones. Consequently, billions of humans might become unemployable, and we will see the emergence of a huge new class: the useless class. This is one reason why human societies in the 21st century might be the most unequal in history.

**Concerns**

Another worry is AI's possible effect on inequality. Anything that reduces labour costs is likely to disproportionately benefit holders of capital. If the race to develop artificial intelligence depends on huge amounts of data and computing power, a big chunk of the future economy could be controlled by a handful of companies. What would happen after that? We have absolutely no idea – we literally can't imagine it. A super-intelligent computer will by definition have a far more fertile and creative imagination than that which we possess. In the 21st century, the rise of AI and biotechnology will certainly transform the world – but it does not mandate a single,

deterministic outcome. How to use them wisely is the most important question humankind is facing today.

### Way Forward

- ▶ **Robot Tax:** Recently, Bill Gates has proposed that robots who take human jobs should pay taxes. As stated this has some obvious attractions like we will be able to spend the money to finance jobs for which humans are particularly suited, such as caring for children or the elderly.

Also robots are unlikely to complain about tax levels, they don't use services financed by tax revenue such as education or the health services and they are most unlikely to salt away income and assets in a tax haven.

- ▶ **Universal Basic Dividend:** There is an alternative to a robot tax that is easy to implement and simple to justify: a **universal basic dividend (UBD)**, financed from the returns on all capital. Imagine that a fixed portion of new equity issues goes into a public trust that, in turn, generates an income stream from which a UBD is paid. Effectively, society becomes a shareholder in every corporation, and the dividends are distributed evenly to all citizens.

To the extent that automation improves productivity and corporate profitability, the whole of society would begin to share the benefits. No new tax, no complications in the tax code, and no effect on the existing funding of the welfare state.

Indeed, as higher profits and their automatic redistribution via the UBD boost incomes, more funds would become available for the welfare state. Coupled with stronger labor rights and a decent living wage, the ideal of shared prosperity would receive a new lease on life.

### Conclusion

The outcome—shared prosperity or increasing inequality—will be determined not by technologies but by the choices we make as individuals, organizations, and societies. If we fumble the future—if we build economies and societies that exclude many people from the cycle of prosperity— that will be our failure.

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## GOVERNANCE ISSUE

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# Social Audit



*The recent report of a joint task force on social audit has made unanimous recommendations that have opened the possibilities of social audit becoming a vibrant, independent and citizen-based monitoring system. The Supreme Court too in an ongoing PIL has taken a note of these recommendations and is exploring strengthening social audit as a systemic solution in law.*

### What is Social Audit and its importance?

Social audits refer to a legally mandated process where potential and existing beneficiaries evaluate the implementation of a programme by comparing official records with ground realities.

In simple mathematics, RTI plus Public Hearing is equal to Social Audit. Social audit is based on the principle that democratic local governance should be carried out, as far as possible with the consent and understanding of all concerned. It creates an impact upon governance. It values the voice of stakeholders, including marginalized/poor groups whose voices are rarely heard. Social auditing is taken up for the purpose of enhancing local governance, particularly for strengthening accountability and transparency in local bodies. These audits were first made statutory in a 2005 Rural Employment Act.

The public collective platforms of jan-sunwais or public hearings that social audits conclude with remain its soul. In the course of a social audit, individuals and communities get empowered and politicised in a way that they experience the practical potential of participatory democracy.

### What are the objectives of Social Audit?

The objectives of Social Audit includes: Prioritization of developmental activities as per requirements, Proper utilization of funds, Conformity of the developmental activity with the stated goals, Quality of service etc. The benefits includes: Involvement of people in developmental activities to ensure that money is spent where is it actually needed, Reduction of wastages, Reduction in corruption, Awareness among people, Promotes integrity and a sense of community among people, Improves the standard of governance and many others.

### What are the Principles of Social Audit?

In the past years, there have been substantial efforts to define common themes in social audit. From the experience of all those involved, a good social audit carries the following characteristics:

**Improved social performance:** This is the overarching principle, and this refers to the continuous improvement in performance by the organisation relative to the chosen social objectives as the result of social audit.

**Multi-perspective:** It is important for all groups affected or who affect the organisation to be included in the process.

**Comparative:** The process should allow for comparison with other organisations, over time and between stakeholder groups.

**Comprehensive:** The process should be designed to collect all relevant materials and areas of concern should not be left out simply because the organisation would not like the result.

**Regular:** To facilitate comparability and to demonstrate a commitment to the process, it should be regular, with a frequency of once every two years.

**Verified:** Verification by independent auditors gives the process credibility.

**Published:** The result (or a synopsis) of the audit should be published so that the stakeholders can see the results and to encourage openness.

**Improvement:** It is important to receive feedback about the process itself and the report, and to improve the system over time.

**Embeddedness:** The social audit process should be integrated with other business information gathering system.

### What results are seen by its usage?

It is important to build on the current momentum. Where social audits have been able to take place effectively, they have served as an important tool to detect corruption and influence redress. Nearly Rs 100 crore has been identified as misappropriated funds through social audits under the MGNREGA, out of which nearly Rs 40 crore has been recovered. Nearly 6,000 field personnel have been implicated/removed from duty based on findings of social audits. The impact of continuous cycles of social audit in deterring potential corruption is beyond quantification.

### What are the various Legislative Support systems and initiatives for effective Social Audit in India?

**The 73rd amendment of the Indian Constitution:** Social Audit gained significance especially after the 73rd Amendment of the Constitution relating to Panchayat Raj Institutions. It empowered the gram sabhas to conduct Social Audits in addition to its other functions, and it was by far the only legislative reference to the concept of Social Audit.

**Right to information Act, 2005:** This is also a key pillar of support for Social Audit system in India. This was enacted by Parliament of India to provide for setting out the practical regime of the right to information for citizens. The Act applies to all states and union territories of India, except the state of Jammu and Kashmir. This Act also requires every public authority to computerize records for wide dissemination and to proactively publish certain categories of information so that the citizens need minimum resources to request for information formally. This is again a support for Social Audit system in India.

**National Rural Employment Guarantee Act, 2005 (NREGA):** Section 17 of this Act provides for regular "Social Audits" so as to ensure transparency and accountability in the scheme. It is the responsibility of the state government to conduct the Social Audit. The state government will conduct the Social Audit according to the pre-designed "Schedule of Social Audit".

The state government is to ensure that the agencies for conducting Social Audit are trained. The Draft "NREGA Transparency and Public Accountability Rules" lay down detailed guidance for conduct of Social Audit. The government has been instrumental in establishing an independent Social Audit Society for carrying out the Social Auditing

of NREGA in the state. This society is called “Society for Social Audit”. Other social sector programmes also laid down provisions and procedure for “Social Audit”. For example: The ministry of Housing and Urban Poverty alleviation has laid down Social Audit methodology and operational guidelines for various schemes.

The erstwhile Andhra Pradesh Government engaged MV foundation, a voluntary organisation working on the issue of child labour and children’s right to education, to conduct “Social Audit” of Mid-Day Meals in Andhra Pradesh.

### **What are the challenges on the ground?**

Institutionalisation on the ground has been inadequate, and has faced great resistance from the establishment. The lack of adequate administrative and political will in institutionalising social audit to deter corruption has meant that social audits in many parts of the country are not independent from the influence of implementing agencies. Social audit units, including village social audit facilitators, continue to face resistance and intimidation and find it difficult to even access primary records for verification.

### **What are the Strategies and Recommendations for improvement?**

In spite of challenges, social audit moved tentatively, but surely towards becoming an accepted part of audit, and a discipline in itself. Nothing demonstrates that better than the fact the Comptroller and Auditor General in 2016 laid down “auditing standards” for social audit. This, as the CAG office states in the introduction is, “the first ever such exercise for the formulation of standards for social audit in the world”. It is indicative of a remarkable trajectory in the expanding theoretical and practical framework of social audit over the past two decades.

### **Conclusion**

In an age where phrases such as open data and open government are used in any conversation around governance, social audits should serve as a critical point of reference. An open and transparent system involves the presence of real platforms for people to be informed by official statements and records, with an opportunity to compare that with ground realities. Websites and twitter handles run by the government cannot replace the responsibility of the state to set up, fund, and foster practical processes and mechanisms.

The government can decide to use these interventions and harness peoples’ energies in facing the vast challenge of implementation and monitoring. Or it can choose to be reluctantly pushed along. Social audit is no longer a choice. Along with other transparency and accountability platforms, it is a legal, moral, and democratic necessity.

## ENVIRONMENTAL ISSUE

# Eco-bridges and Biodiversity Management

Context

*Telangana State is planning to construct eco-friendly bridges over a canal cutting across the tiger corridor linking the Tadoba-Andhari Tiger Reserve (TATR) in the Chandrapur district of Maharashtra with the forests in Telangana's Kumram Bheem Asifabad district.*

*The Telangana Irrigation Department has given its consent for the construction of the eco-bridges. Recommendations on the size and locations of the bridges are awaited from the National Board of Wildlife.*

*Thus, hereby analyzing the concept of Eco-bridge or wildlife corridor in biodiversity management.*

## Introduction

Wildlife corridor, also known as eco-bridges, is an area of habitat connecting wildlife populations that would otherwise be separated by human activities or structures such as roads, other infrastructure development, or logging and farming.

Practically speaking, a wildlife corridor is a link of wildlife habitat, generally made up from native vegetation, which joins two or more larger areas of similar wildlife habitat. Wildlife corridors play a very important role in maintaining connections between animal and plant populations that would otherwise be isolated and therefore at greater risk of local extinction.

Eco-bridges may include: underpass tunnels, viaducts, and overpasses (mainly for large or herd-type animals); amphibian tunnels; fish ladders; Canopy bridge (especially for monkeys and squirrels), tunnels and culverts (for small mammals such as otters, hedgehogs, and badgers); green roofs (for butterflies and birds).

**Ecoduct is natural landscaping above the main carriageway to provide connectivity to wildlife. It allows animals and humans to live alongside in safety and peace without having to face death.**

Eco-bridges are a practice in habitat conservation, allowing connections or reconnections between habitats, combating habitat fragmentation.

## Why eco-bridges needed?

Human activity and intervention in our natural environment leaves fragmented patches of intact or relatively intact ecosystems whose ties with others are severed. If human activities continue in the area, those islands of biodiversity become even smaller and grow further apart putting the ecosystems at risk. This ultimately leads to a break down in the various ecological processes such as species migration, recycling of nutrients, pollination of plants and other natural functions required for ecosystem

health. As a result, the habitat will suffer severe biodiversity decline and local extinction of sensitive species.

Animals may also suffer by not being able to access particular habitats. In times of drought, roads can prohibit animals from reaching water.

Further, when animals cross roads, mortality is often the result. This rate of mortality can severely threaten animals and has been identified as a leading cause of decline in some populations.

In such circumstances, wildlife corridors can help halt biodiversity loss and redress some of the impacts of the degradation and isolation of ecosystem.

### Significance of Eco-bridges

- ▶ To prevent genetic isolation of fragmented flora and fauna populations, the bridge would encourage the interaction of wildlife by facilitating movement between the once separated forests and effectively expand habitat, mating and foraging ranges of flora and fauna.
- ▶ With wildlife crossing the expressway from one nature reserve to another, the chances of pollination and dispersion of rare native plants could greatly increase.
- ▶ Eco-bridges would also bring about greater interaction between individuals leading to a healthy exchange of genetic materials, thereby reducing the occurrence of inbreeding and increasing the long-term survival of our native species.
- ▶ Providing crossing infrastructure at key points along transportation corridors is known to improve safety, reconnect habitats and restore wildlife movement. Throughout Europe, Asia, Australia and North America, wildlife crossing structures have been implemented with demonstrable success.
- ▶ Species that prefer natural areas (urban avoiders or urban adaptors) have not evolved as fast as the rapid pace of developments. Thus, they prefer to remain within the natural areas or their edges. The species that prefer urban areas (urban exploiters) are usually different to those found in natural areas. Therefore, appropriate corridors for the dispersal of species are necessary to link between natural areas if they are far apart or isolated.

### Challenges

The challenging aspects of wildlife corridors are the lack of funding because of the lack of research into the actual benefits of these corridors. Many organizations involved in spreading the word about wildlife corridors find it hard to generate a response.

Wildlife corridors often need to be built towards a specific animal population which can decrease their efficiency in the grand scheme of conservation. A big horned sheep, for instance, might not cross a wildlife corridor built for that area's bear population even though its migratory habits are similar.

As many wildlife corridors intersect busy roads or places where a lot of humans are, many species shy away from the area. Corridors also need to be built very wide to maintain the wilderness effect, but this land is very hard to get approved for usage as a wildlife corridor in some cases.

They also must maintain the same habitat as the areas the animals call home, or crossing will seem unnatural to the animals using the corridor. Unfortunately, these corridors often allow for the safe passage of invasive species of flora and fauna which can drastically change the ecosystem of a nearby area that was once inaccessible.

More study needs to be conducted on specific animal migratory patterns as well as the overall benefits of these corridors in order to know if they are truly worth the cost of building and maintaining. In the meantime, the existing corridors should be taken care of and used as stepping stones for the future of localized animal conservation.

### Way Forward

Thus overall corridor management should aim to ensure that ecological processes and corridor function are maximised:

- ▶ Maintain and increase vegetation cover and habitat quality to maximise connection between larger remnants of vegetation. This will help dispersal of wildlife populations between larger remnants and ensure genetic interchange and seasonal wildlife movement;
- ▶ Provide specific habitat resources and ecological needs, particularly for threatened species (e.g. Koalas);
- ▶ Maximise corridor width and function by revegetation and control of weeds and feral animals; and
- ▶ Maximise the protection / linkage of landforms (i.e.. valley floors, floodplains, gullies, mid-slopes and ridges).

## GOVERNANCE ISSUE

# Law Commission Report on Human DNA Profiling


**Context**

*Discovery of DNA is considered as one of the most significant biological discoveries during the 20th century owing to its tremendous impact on science and medicine. Of late, it is acting as a very useful tool of forensic science that not only provides guidance in criminal investigation and civil disputes, but also supplies the courts with accurate information about all the relevant features of identification of criminals. With a view to frame a legislation for the use and regulation of DNA-based technology in civil and criminal proceedings, and identification of missing persons and human remains, the Department of Biotechnology proposed a draft Bill titled "The Use and Regulation of DNA-based Technology in Civil and Criminal Proceedings, Identification of Missing Persons and Human Remains Bill, 2016". Hereby, discussing the Law Commission report on Human DNA Profiling.*

## Introduction

DNA fingerprinting has been very useful for law enforcement, as it has been used to exonerate the innocent. Unlike blood found at a crime scene, DNA material remains usable for an endless period of time. DNA technology can be used even on decomposed human remains to identify the victims.

Such tests relating to a party would definitely constitute corroborative evidence. Appreciating the use and regulation of DNA based technology in judicial proceedings, particularly, identification of persons accused of offences under the Indian Penal Code 1860 (IPC) and other laws, identification of missing persons and disaster victims apart from its use in medical sciences; a need has long been felt to have a special legislation to regulate human DNA profiling. DNA analysis offers substantial information which if misused or used improperly may cause serious harm to individuals and the society as a whole.

## Constitutional and Legal Aspects of DNA Profiling

The Constitution under Article 51A(h) and (j) casts a duty on every citizen of India "to develop the scientific temper, humanism and the spirit of inquiry and reform and to strive towards excellence in all spheres of individual and collective activity". Parliament is competent to undertake legislations which encourage various technological and scientific methods to detect crimes, speed up investigation and determine standards in institutions for higher education and development in technical institutions (Entry 65 & 66 of the Union List). The other relevant provisions of the Constitution are, (i) Article 20(3) which guarantees a right against the self-

incrimination; and (ii) Article 21 which guarantees protection of life and liberty of every person.

The right to privacy is implicit in the right to life and liberty guaranteed to the citizens of this country by Article 21. It is a “right to be let alone”. A citizen has a right to safeguard the privacy of his own, his family, marriage, procreation, motherhood, child-bearing and education among other matters.

### **Critical analysis of the Human DNA Profiling Bill 2016**

- ▶ The Bill seeks to set up two new institutions — a DNA Profiling Board and a DNA Data Bank. The Board, with 11 members, is supposed to be the regulatory authority that will grant accreditation to DNA laboratories and lay down guidelines, standards and procedures for their functioning.
- ▶ It will advise central and state governments on “all issues relating to DNA laboratories”. It will also be the authority to make recommendations on ethical and human rights, including privacy, issues related to DNA testing.
- ▶ A national databank of DNA profiles is proposed to be set up, along with regional databanks in every state, or one for two or more states, as required.
- ▶ The new draft does not specify the location of the national databank. All regional DNA databanks will be mandated to share their information with the national databank.
- ▶ Certain DNA Profiling Board-accredited labs would be authorised to carry out DNA testing and analysis. These are the only places to which DNA samples, picked up from a crime scene, for example, by police, can be referred for analysis. Data from the analyses will need to be shared with the nearest regional DNA databank which will store it and share it with the national databank.
- ▶ The databanks will maintain five sets of databases — for DNA samples picked up from crime scenes, for suspects or undertrials, and for offenders, missing persons, and unidentified dead bodies.

The Bill was criticised for not addressing the concerns of privacy by a large number of organisations and public spirited persons on similar grounds and made various representations to the statutory authorities. The Bill did not make special provisions in respect of funding of the Board and how the required funds will be made available to the investigating agencies to collect proper reports of samples. Moreover, the Bill did not specifically provide as to on what stage the samples could be collected.

### **Recommendations of the Law Commission**

Following are some of the salient features of the recommendations:

- ▶ Constitution of a DNA Profiling Board, a statutory body to undertake functions such as laying down procedures and standards to establish DNA laboratories and granting accreditation to such laboratories; and advising the concerned Ministries / Departments of the Central and State Governments on issues relating to DNA laboratories. The Board shall also be responsible to supervise, monitor, inspect and assess the laboratories. The Board will frame guidelines for training of the Police and other investigating agencies dealing with DNA related matters. Advising on all ethical and human rights issues relating to DNA testing in consonance with international guidelines will be another function of the Board. It will recommend research and development activities in DNA testing and related issues, etc.
- ▶ DNA profiling would be undertaken exclusively for identification of a person and would not be used to extract any other information.

- ▶ There shall be a National DNA Data Bank, and Regional DNA Data Banks for the States, to be established by the Central Government. The Data Banks will be responsible for storing DNA profiles received from the accredited laboratories and maintaining certain indices for various categories of data, like crime scene index, suspects' index, offenders' index, missing persons' index and unknown deceased persons' index.
- ▶ With a view to assist the kith and kin of missing persons, provisions have been made for proper identification of missing persons on the basis of their bodily samples/substances.
- ▶ Appropriate regulations may be notified by the Board for entry, retention and expunction of DNA profiles.
- ▶ Maintenance of strict confidentiality with regard to keeping of records of DNA profiles and their use.
- ▶ Sharing of DNA profiles with and by foreign Government or Government organisation or Government institutions or any of its agencies, for the purpose of this Act.
- ▶ The violators of the provisions would be liable for punishment of imprisonment, which may extend up to three years and also fine which may extend up to Rs.2 lakhs.
- ▶ The under trial may request the trial court for another DNA testing if s/he satisfies the court that the previous DNA sample(s)/bodily substance(s) stood contaminated and hence could not be relied upon.
- ▶ The DNA experts may be specified as Government Scientific Experts and be notified as such under clause (g) of sub-section (4) of section 293 of Cr. P.C.

## Conclusion

DNA Profiling, an accurate and well established scientific technique is used for disaster victim identification, investigation of crimes, identification of missing persons and human remains, and for medical research purposes.

DNA Profiling and use thereof involves various legal and ethical issues and concerns are raised and apprehensions exist in the minds of the common man about its misuse which unless protected may result in disclosure of personal information, such as health related data capable of being misused by persons having prejudicial interests, adversely affecting the privacy of the person.

## ECONOMIC ISSUE

# Role of Women Tech Park in Women Empowerment

**Context**

*In India, there is no dearth of sops. And when it comes to encouraging women entrepreneurs, there are special loans on offer and banks set up exclusively to cater to them. And more recently, there has been a rise in the number of women-only tech parks to help women rent space at subsidized rates. The reason for such an initiative is to empower women in the Indian traditional society where women have a secondary status to men.*

*In this context, we shall look at the concept of Tech park, especially Women only tech Park. How Government initiative encourages private sector and what kind of impact such initiatives have on women empowerment? At last we would look at other complementary policies of the Government in this regard.*

## What is a Tech- Park?

Tech Park or Technology Park is a landscaped development usually comprising of high specification office space as well as residential and retail developments, designed to encourage localisation of high technology companies such as information technology, software development etc., thereby giving each the benefit of economies of scale. Usually, technology parks are located outside the inner city areas as these are quite land intensive in nature.

## What is a Women Tech Park?

From architects to contractors, its women all the way who will get it up and running. The tech park supports ventures ranging from IT, food processing, textiles, telecom, electronics and others. Facilities will include conference halls, restaurants and even grocery shops. Allotment of land will be at a special rate, with investment-based incentives including investment promotion subsidy, exemption from stamp duty, concessional registration charges, exemption from entry tax, etc. Today, there's no platform for women entrepreneurs and that's why the government thought it best to create an exclusive tech park for women.

## Multiplier effect

Federation of Indian Chambers of Commerce and Industry (FICCI) said that it has plans to set up industrial parks for women entrepreneurs. Land had been earmarked at industrial estates in Telangana, Gujarat and Karnataka. And in Assam, Haryana, Meghalaya, Punjab, Uttar Pradesh and West Bengal, the state governments have agreed in principle to create industrial parks for women. This initiative follows a move by the Karnataka government to set up a 300-acre tech park exclusive for women in Bangalore. The reason for setting up such Tech Park is as follow:

- ▶ Women own 10% of micro, small and medium enterprises of which 90% are micro businesses, and account for only 3% of the output. There are a total of 208 male co-founders in the top 100 start-ups—and only 16 female co-founders.
- ▶ Women entrepreneurs face gender-based barriers to starting and growing their businesses, like discriminatory property rules, lack of access to formal finance mechanisms, limited mobility and access to information and networks. A cluster like this can help give women entrepreneurs a boost.

### How it helps in Women Empowerment

Women Empowerment refers to the creation of an environment for women where they can make decisions of their own for their personal benefits as well as for the society. It refers to increasing and improving the social, economic, political and legal strength of the women, to ensure equal-right to women, and to make them confident enough to claim their rights. Women tech Park provides an economic opportunity to women so that they can realize their potential. Such an initiative lead to economic empowerment which has following impact on lives of women:

- ▶ Freely live their life with a sense of self-worth, respect and dignity.
- ▶ Have complete control of their life, both within and outside of their home and workplace.
- ▶ To make their own choices and decisions.
- ▶ Have equal social status in the society.
- ▶ Have equal rights for social and economic justice.
- ▶ Determine financial and economic choices.
- ▶ Get safe and comfortable working environment.

### Are these Tech Park a final Solution?

While a move like this can be a boost, mostly sops like these remain on paper. One such initiative was the Bharatiya Mahila Bank, which was set up with much fanfare in 2013. But many of the women entrepreneurs don't even hear back from the bank when they apply for loans. Later, the bank was merged with SBI along with other associate banks of SBI. There are some fundamental challenges unsolved and there is so much that can be done for women before we go towards these benefits. The most fundamental of these is funding. Women are still not getting enough funding. For ex - Only 68 of 307 start-ups that raised funding in the first quarter of 2016 had a female co-founder. Of these, only nine had a sole female founder. On the other hand, young mothers who are entrepreneurs face a big hurdle to manage their companies and child care responsibilities, so what would help is startup incubation and acceleration centres with facilities for childcare.

### Other Complementary Schemes for Women Empowerment

- ▶ **Mahila Vikas Nidhi:** This scheme offers developmental assistance for pursuit of income-generating activities to women. Training and employment opportunities are provided to women through establishment of required infrastructure.
- ▶ **TREAD Subsidy Scheme for Women:** Trade Related Entrepreneurship Assistance and Development (TREAD) Scheme for Women is provided by the Ministry of Micro, Small & Medium Enterprises. The government provides subsidy of up to 30 percent of the total project cost as appraised by lending institutions, which would finance 70 percent as loan assistance to women applicants. Women eligible under this scheme are those who have no easy access to credit from banks due to financial constraints and the inability to provide adequate security in the form of collaterals.

- ▶ **Mahila Coir Yojana:** This was started to provide self-employment to rural women artisans in regions producing coir fibre. In rural households, converting coir fibre into yarn provides scope for large-scale employment and financial independence of women.

### Conclusion

As economic progress takes place, Society changes its nature from traditional society where men have an upper hand in all aspects of life to a more Gender equal society. One of the main ingredients of this change is empowerment of women especially economic empowerment. State has a vital role to play to facilitate this economic empowerment and setting up of Women Tech-Park is an important step in this direction.

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**ENVIRONMENTAL ISSUE**


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# Garbage Dumping and its Environmental Impact


**Context**

*The National Green Tribunal has pulled up the Delhi government for lack of infrastructure to deal with "mountain dumps" of decaying garbage at landfills across the city.*

*Thus, in the following article discussing the issue of garbage dumping and its environmental impact.*

## Background

Growth of population, increasing urbanisation, rising standards of living due to technological innovations have contributed to an increase both in the quantity and variety of solid wastes generated by industrial, mining, domestic and agricultural activities. Globally, the estimated quantity of wastes generation was 12 billion tonnes in the year 2002 of which 11 billion tonnes were industrial wastes and 1.6 billion tonnes were municipal solid wastes (MSW). About 19 billion tonnes of solid wastes are expected to be generated annually by the year 2025. Annually, Asia alone generates 4.4 billion tonnes of solid wastes and MSW comprise 790 million tones (MT) of which about 48 (6%) MT are generated in India. By the year 2047, MSW generation in India, is expected to reach 300 MT and land requirement for disposal of this waste would be 169.6 km<sup>2</sup> as against which only 20.2 km<sup>2</sup> were occupied in 1997 for management of 48 MT.

## About Garbage dumping sites

“Garbage dumping site” means disposal of residual solid wastes on land in a facility designed with protective measures against pollution of ground water, surface water and air fugitive dust, wind-blown litter, bad odour, fire hazard, bird menace, pests or rodents, greenhouse gas emissions, slope instability and erosion.

It is done for the following types of waste:

- ▶ Comingled waste (mixed waste) not found suitable for waste processing.
- ▶ Pre-processing and post-processing rejects from waste processing sites.
- ▶ Non-hazardous waste not being processed or recycled.

## Example:

The Ghazipur garbage dumping site in east Delhi, the oldest functional landfill in the city, was started in 1984. Spread across 70 acres, the landfill contains at least 12 million tonnes of waste. The landfill is now estimated to be at least 50 feet tall. It overshoot its limit of 15 feet in 2002, but in the absence of an alternative site, the landfill continues to function.

### Environmental impact of garbage dumping sites

- ▶ A major problem arising from landfills is the discharge of leachate which is formed by water passing through the tip and thus becoming contaminated with various organic and inorganic pollutants. This subsequent movement of the leachate into the surrounding soil, ground water or surface water could lead to severe pollution problems. In case of Delhi, this can prove to be disastrous for large populations residing near landfill sites which use groundwater. It will also further pollute Yamuna which runs along the course of landfill sites.
- ▶ These sites were found to be high on compounds like aliphatics, terpenoids, benzenes, ketones, pharmaceuticals and phthalates which do not degrade with time, enter the food chain quickly and cause a variety of health issues such as hormone disruption, reproductive disorders, learning disabilities, heart diseases, diabetes and cancer.
- ▶ According to the Environmental Protection Agency, the methane produced by the rotting organic matter in unmanaged landfills is 20 times more effective than carbon dioxide at trapping heat from the sun. Not only does methane get produced by the various forms of rotting organic matter that find their way into landfills, but household cleaning chemicals often make their way here as well. The mixture of chemicals like bleach and ammonia in landfills can produce toxic gases that can significantly impact the quality of air in the vicinity of the landfill.
- ▶ Aside from the various types of gases that can be created by these landfills, dust and other forms of non-chemical contaminants can make their way into the atmosphere. This contributes further to the air quality issue that plagues modern landfills.

### Impact to human beings

- ▶ Studies have shown possible increased risks of certain types of cancer, including bladder, brain and leukemia, among people who live near landfills. Further, a study by researchers at the London School of Hygiene and Tropical Medicine also found that babies born to mothers who live near landfills have a greater risk of birth defects. There was a significantly overall increased risk of neural-tube defects, malformations of the cardiac septa (hole-in-the-heart), and malformations of the great arteries and veins in residents near the landfill sites in the study.
- ▶ The health risks associated with illegal dumping are significant for ragpickers and residents living nearby. Areas used for illegal dumping may be easily accessible to people, especially children, who are vulnerable to the physical (protruding nails or sharp edges) and chemical (harmful fluids or dust) hazards posed by wastes. As opposed to children living in clean areas, the study also found that children living near to waste sites, whether landfills or contaminated bodies of water, are hospitalized more frequently with acute respiratory infections.
- ▶ Rodents, insects, and other vermin attracted to open dumpsites may also pose health risks. Dumpsites with scrap tires provide an ideal breeding ground for mosquitoes, which can multiply 100 times faster than normal in the warm stagnant water standing in scrap tire casings. Severe illnesses, including encephalitis and dengue fever, have been attributed to disease-carrying mosquitoes originating from scrap tire piles.

### What is the NGT verdict?

The tribunal noted that the capital generates over 14,000 metric tonnes of garbage a day, and the authorities lacked requisite infrastructure and appropriate technical capacity to deal with huge amount of waste. A bench headed by NGT chairperson,

Justice Swatanter Kumar, directed the AAP government to apprise the tribunal about the steps taken to lower the height of garbage dumps at Bhalswa, Ghazipur and Okhla landfill sites, stating that they were sources of air and water pollution.

The tribunal also directed the city government to submit a report on the status of cleaning the major drains which join river Yamuna. The tribunal had last year constituted a committee to look into the working of waste-to-energy plants in the national capital.

It had also asked Central Pollution Control Board, Delhi Pollution Control Committee to approach the Delhi government to provide more landfill sites in the city and maintain them strictly in accordance with the Solid Waste Management Rules of 2016.

## Conclusion

Scientific disposal of solid waste through segregation, collection and treatment and disposal in an environmentally sound manner minimises the adverse impact on the environment. The local authorities are responsible for the development of infrastructure for collection, storage, segregation, transportation, processing and disposal of MSW.

The weaknesses of the existing system of solid waste management are: (i) the professional and managerial capacities of the municipal bodies are limited and this is more pronounced in case of smaller cities; (ii) no charges are levied for garbage collection or disposal, nor are there any incentives for reducing garbage generation or recycling waste; (iii) no separate costing is done for this function; (iv) indiscriminate use of plastic bags and goods; (v) recourse to modern technology is rare and; (vi) segregation of garbage at the source is not enforced. Thus Indian waste management system is starved of resources to tackle the increasing demands associated with growing urbanisation.

To tackle the issue of pollution through landfills, “Solid Waste Management Rules, Construction Waste Management Rules, Plastic Waste Management Rules, Bio-medical Waste Management Rules and Hazardous Waste Management Rules were revamped.” However, their implementation with true spirit is important.

## POLITICAL ISSUE

# Is President a mere Rubber Stamp?

Context

*Ram Nath Kovind, former governor of the northern Indian state of Bihar, has been elected as the country's new President. It is an accepted fact that under Indian setup, the president's job is restricted to rubberstamping the decisions of the central government, faithfully. He cannot ask too many questions to the government or parliament unless he is ready to relinquish his top position. Is it true?*

*The present article analyses the functions, roles and responsibilities of President and why he doesn't need to be a rubber stamp and should exercise his discretion to uphold dignity of the highest post in Indian Democracy.*

## Introduction

The Preamble of our Constitution clearly articulates India as a republic. Being a republic there is no hereditary monarch but the President, as the head of the State. The President is not directly but indirectly elected. The election is carried out by an electoral college, consisting of the elected members of both Houses of Parliament and the State Legislative Assemblies, in accordance with the system of proportional representation by means of single transferable vote by secret ballot.

## Is it a rubber stamp?

According to the Constitution, the 'executive power of the Union shall be vested in the President and shall be exercised by him either directly or through officers subordinate to him'. In spite of the expression 'directly' in Article 53 of the Constitution, India's President merely 'reigns and does not rule'.

Also, there is no constitutional provision that obliges the president to act mandatorily on the 'aid and advice' of the Union Cabinet. But in practice President acts as a rubber stamp for the ruling Political party. A rubber stamp, as a political metaphor, refers to a person or institution with considerable de jure power but little de facto power; one that rarely or never disagrees with more powerful organs.

Thus, the real position of the President of India is clouded with different suspects. There are many causes to call the President a rubber stamp. The first cause may be that the President is the head of the State, not of the Government. Secondly, India does not have Presidential form of Government. Thirdly, British tradition still prevails in our constitution. The last but not the least is that the President works on the advice of the Ministry.

The interpretation which opposes the image of President as the rubber stamp says that the President "is not only the highest dignitary of the realm, but the embodiment

of the unity of the country. His principal role is to prevent a parliamentary government from becoming a parliamentary anarchy”.

This view is based on the accurate reading of Articles 86 and 111, which deal with legislative businesses, i.e. Presidential address to Parliament and assent to the Bills.

The President of India does not only have the power to sign on the dotted lines but also has other powers laid down in the Constitution of India, which clearly show the position of the President. The powers that the President possesses are mentioned below.

### Power and Functions of the President

The powers and functions that have been vested in the President of India may be classified under the following heads. The Executive powers, Legislative powers, Military powers, Diplomatic powers, Judicial powers, Financial powers and Emergency powers.

#### ► Executive powers

- The executive power of the Union is vested in the President. The executive power does not only mean the execution of laws passed by the legislative but also the powers to carry out the business of the Government.
- However, it is evident that ***President is not free to use his powers***; rather he acts on the advice of the Council of Ministers.
- The administrative power also includes the power ***to appoint and remove*** the high dignitaries of the State. The President shall have the power to appoint:
  - The Prime Minister of India.
  - Other Ministers of the Union.
  - The Attorney-General for India.
  - The Comptroller and Auditor General of India.
  - The judges of the Supreme Court.
  - The judges of the High Courts of the States.
  - The Governor of a State.
  - A commission to investigate interference with water-supplies.
  - The Finance Commission.
  - The Union Public Service Commission and joint Commissions for a group of States.
  - The Chief Election Commissioner and other members of the Election Commission.
  - A Special Officer for the Schedule Castes and Tribes.
  - A Commission to report on the administration of Scheduled Areas.
  - A Commission to investigate into the condition of backward classes.
  - A Commission on Official Language.
  - Special Officer for linguistic minorities.
- In making some of the appointments, the President is required to consult persons other than his ministers as well. Thus, in appointing the Judges of the Supreme Court, the President shall consult the Chief Justice as he may deem necessary [Art. 124(2)].

- The President shall also have the **power to remove** his Ministers, individually; the Attorney-General of India; the Governor of a State; the Chairman or a member of the Public Service Commission of the Union or of a State, on the report of the Supreme Court; and Judge of the Supreme Court or of a High Court or the Election Commissioner, on an address of Parliament.
- ▶ **Legislative Powers**
  - **Summoning, Prorogation, Dissolution:** Indian President shall have the power to **summon or prorogue** the Houses of Parliament and to dissolve the lower House. He shall also have the **power to summon a joint sitting** of both Houses of Parliament in case of a deadlock between them [Arts. 85, 108].
  - **The Opening Address:** The President shall **address** both Houses of Parliament assembled together, at the **first session after each general election** to the House of the People and at the commencement of the first session of each year, and “inform Parliament of the causes of its summons” [Art. 87].
  - **The Right to send Messages:** Apart from the right to address, the Indian President shall have the right to send messages to either House of Parliament either in regard to any pending Bill or to any other matter, and the House must then consider the message “with all convenient dispatch” [Art. 86(2)].
  - **Nominating Members to the Houses:** President has been given the power to nominate certain members to both the Houses upon the supposition that adequate representation of certain interests will not be possible through the competitive system of election.
  - **Laying Reports before Parliament:** The President is brought into contact with Parliament also through his power and study to cause certain reports and statements to be laid before Parliament, so that Parliament may have the opportunity of taking action upon them.
  - **Disallowance of State Legislation:** Besides the power to veto Union Legislation, the President of India shall also have the power of disallowance or return for reconsideration of a Bill of the State Legislature, which may have been reserved for his consideration by the Governor of the State (Art. 201).
- ▶ **Ordinance Issuing Power (Art. 123)**
  - The President has a very strong position in the sense that he has the power of issuing ordinance. In case there is a matter of urgency and a law is needed for a particular situation, the President can issue ordinance.
  - The 38th Amendment in this regard is a mile stone in the sense that his assent is important.
  - The ordinance can be promulgated by the President when the Houses of Parliament are not in session. The ordinance will have the same effect as of the law of the land.
- ▶ **Pardoning Power**
  - **Article 72** of the Constitution empowers the President to grant pardons to persons who have been tried and convicted of any offence in all cases where the:
    - Punishment or sentence is for an offence against a Union Law, offence by a court martial (military court) and the sentence of death.
    - The object of conferring this power on the President is to keep the door open for correcting any judicial errors in the operation of law and to afford relief from a sentence, which the President regards as unduly harsh.

► **Emergency Powers**

- The President also enjoys emergency power. In a federal structure the grip of the Union on the State is not so tight and hence the Constitution framers did provide for the exigencies which may require a tighten grip of the Union on the State.
- **Article 356** gives powers to the President for the extension of his rule in the State. “If the President on receipt of report from the Governor of a State or otherwise, is satisfied that a situation has arisen in which the Government of the State cannot be carried on; the President may extend his rule to the State.
- **Article 360** deals with financial emergency, “If the President is satisfied that a situation has arisen whereby the financial stability or credit of India or of any part of the territory is threatened ... the President can declare financial emergency.”
- The **38th Amendment** (clause 5) has furthered the strength of the President in this regard as his decision is final and cannot be challenged in the Court of law.

Supreme Court iterated in the past that: “In the Indian Constitution, we have the same system of parliamentary executive as in England and the Council of Ministers consisting, as it does, of the members of the legislature is, like the British Cabinet, “which joins, a buckle which fastens the legislative part of the State to the executive part.” True, the President has no choice if after reconsideration; Cabinet reiterates its original advice.

Therefore, it depends on the person holding the post of the President of India to use the powers diligently and live up to the expectations of the Constitution of India. In fact, the role of the President of India is having real independent and exclusive power to control the activities of the Parliament of India and the ruling government of India at the centre and the state governments.

One hopes that the new President, Ram Nath Kovind, will follow the footsteps of Rajendra Prasad, Zail Singh and KR Narayanan who refused to be a rubber stamp. Through the intelligent use of power of reconsideration of the Cabinet’s advice like KR Narayanan and the use of pocket veto and right to be informed like Zail Singh, President elect Ram Nath Kovind can fulfil his oath and enhance the stature of his office.

## ENVIRONMENTAL ISSUE

# Wildlife Coalition and their Role



*Wildlife Coalition is established to improve the impact of individual efforts by providing a platform for all stakeholders to come together to share, learn, collaborate and partner. This platform could also provide an opportunity for experts and researchers to meet and share their learnings.*

*Such a coalition could become a meeting point, both virtual and physical, for all players in the field. Hereby, discussing their role in environmental conservation.*

## Introduction

Wildlife coalition of stakeholders—including government, non-governmental organizations (NGOs), and individual experts, businesses that service the industry, media, corporate entities and donors add greatly to the overall wildlife effort. They facilitate forest departments, NGOs, resort owners, naturalists, guides, drivers, community and farmer representatives, sarpanchs (village heads) and DMs (district magistrates) working together at the local level.

A number of organizations are spending reasonable amounts on different wildlife-related activities, including helping forest guards. The coalition helps prioritize the requirements of the different parks, and guide the disbursement of available funds. Raising funds from different sources, including Corporate Social Responsibility (CSR) funds, is another function of the coalition.

## Different Wildlife Coalitions

- ▶ **Coalition Against Wildlife Trafficking (CAWT):**
  - CAWT was established in 2005 by a group of governments, non-government organisations, and industry representatives to combat illicit wildlife trafficking by stimulating political will, improving law enforcement, and reducing consumer demand.
  - Objective is to focus public and political attention and resources on ending the illegal trade in wildlife and wildlife products.
  - Since its establishment, international attention has been increasingly focused on solving the problem of illicit wildlife trafficking.
  - International commitment to measures to address wildlife trafficking is now at unprecedented levels and is demonstrated through a number of high profile international agreements including the **London Declaration** on the Illegal Wildlife Trade and subsequent **Kasane and Hanoi statements**, and the United Nations General Assembly Resolutions on Tackling the Illicit Trafficking in Wildlife.

- ▶ **DFW Wildlife Coalition:**
  - The mission of the DFW Wildlife Coalition is to reduce, through public outreach and education, the incidence of orphaned or euthanized native wildlife in the Dallas / Fort Worth area.
- ▶ **Vermont Wildlife Coalition:**
  - It consists of citizen volunteers and seeks a broad membership that consists of individuals and organizations from across the state that shares an interest in the future of Vermont's wildlife.
  - They engage in political action that above all supports humane conservation approaches.
  - The VWC receives no funding from state or federal sources, but does welcome donations from the public to support its work.
  - Mission is to ensure a vibrant and protected future for Vermont's wild species through wildlife-centered public education and political action.
- ▶ **Wildlife Rescue Coalition of Northeast Florida, Inc. (WRCNEF)**
  - It is comprised of citizens, volunteers, experts, rehabilitators, veterinarians, and wildlife advocates.
  - These supporters came together from a realization that there was no other organization in northeast Florida that cared for injured wildlife.
  - Mission is to ensure respect for all wildlife through education and conservation, while providing orphaned, injured and displaced animals with a second chance of life.
  - Objectives:
    - Set up and maintain a system to provide assistance to those who find orphaned, injured and displaced wildlife.
    - Facilitate establishment and maintenance of physical facilities to treat and rehabilitate wildlife.
    - Identify areas for release of rehabilitated wildlife.
    - Recruit and train volunteers and rehabilitators to care for wildlife.
    - Educate the community about Northeast Florida wildlife issues.
- ▶ **International Wildlife Coalition Trust (IWCT)**
  - Set up in 1990 their focus of work over the last 20 years has been to see a complete end to the dog meat trade in the Philippines.
  - Dedicated to returning stranded whales and dolphins to the water, studying whales at sea, providing emergency care to marine mammals, and protecting the ocean environment.
  - Conducts a Whale Adoption Program. The International Wildlife Coalition is legally constituted in four countries: the United States, Canada, the United Kingdom, and Brazil.

#### Threats to wildlife:

- ▶ Urban development and forest fragmentation.
- ▶ Diminishing wildlife habitat and corridors.
- ▶ Young (and older) people out of touch with nature.

- ▶ Global warming.
- ▶ Human-wildlife interactions.
- ▶ Trapping of fur bearing animals.
- ▶ Unregulated hunting seasons.
- ▶ Health of the animals.

**Role of the wildlife coalitions:**

- ▶ The coalition sensitizes media to the realities of wildlife and its protection and attempt to involve them in advocacy for conservation.
- ▶ The coalition encourages experts among its members to write columns in different publications and join panel discussions on television to disseminate knowledge on wildlife.
- ▶ They help local communities to understand about the advantages of tourism. This is key to ensuring that a park does well, making them party to the conservation effort, thus helping attract more tourists.
  - More job opportunities would arise for guides and drivers; there would be a need for vehicles and their maintenance.
  - This will help in increase in employment in lodges and for local farmers providing food and vegetables.
  - Villagers can also benefit from tourism as in Brazil and Africa, with exposure to their villages, homes, culture and sale of their arts and crafts.
  - Forest-related work would also provide jobs to local communities through creating fire lines and water holes, nurseries, check dams and maintenance of roads etc. Tourism can also support the forest department's effort in park management through better policing by providing many more eyes and ears and feedback.
- ▶ The coalition looks at ways as to how tourism can be enhanced with minimal negative impact on the environment.
- ▶ The coalition helps in developing curriculum through experts to educate children in interactive and fun ways.
- ▶ They communicate through informal channels and sharing of pictures. It may be worth encouraging the process and have tourists and guides post their pictures on the coalition's website with dates. Each animal can then be separated and its behaviour pattern mapped, helping the forest department.
- ▶ The coalition's website also disseminates best practices, encourage conversations, skilling and administration for others to emulate. Pictures would also be an advertisement for wildlife and the parks.
- ▶ The coalitions arrange stakeholder workshops for capacity building, and help to identify and address issues in different parks. Information sharing and learnings from others' experiences could cover wide-ranging subjects including poaching, habitat, park administration, buffer zones and night drives, compensation and medical facilities.

**Problems:**

- ▶ The hurdle is to raise funds for a secretariat that would support the coalition.

- ▶ Most coalition members have regular jobs, and they are not able to devote a large part of their time to the coalition, so the secretariat would play a crucial role in ensuring continuity of the various activities.

**Suggestions:**

- ▶ Currently there are a number of awards that recognize different aspects of conservation of the environment and wildlife. Perhaps the coalition should attempt to recognize the winners and support and showcase their efforts in an ongoing manner.
- ▶ The coalition could also suggest to the different organizations to include awards in areas which may not have been covered or institute such awards.
- ▶ The coalition can identify appropriate technologies for implementation, e.g. camera traps with flash are still being used—these scare animals, forcing them to change routes skirting the traps. Best practices in such situations can be agreed on and implemented.
- ▶ Project Tiger fortunately helped to protect our pristine forests and other animals, birds and reptiles benefited in the process. Gibbons, pangolins and other endangered species also need to be protected. The coalition can also help drive this effort.

Collaboration and partnerships are the need of the hour and a coalition could greatly enhance the overall impact of individual efforts. A coalition of stakeholders—including government, NGOs, individual experts, businesses that service the industry and media—will add greatly to the overall wildlife effort.

## POLITICAL ISSUE

# Criminalization of Politics



*Democracy implies rule of law and holding of free elections to ascertain the will of the people. But in quite recent times this peaceful process of social change has been much vitiated. Criminalization of politics has become a headache for the Indian democracy. It's shameful to admit that in the world's largest democracy the cult of the gun prevails and Criminals are hired to kill political rivals, etc.*

*In this way the entire democratic process is negated. What's more surprising and rather shameful is that these people even after committing serious criminal offences make their way to the Parliament and Assemblies, which is the highest governing body in the country. Thus the fate of the nation is in danger, if power is given to undeserving criminals.*

*Recently, the Supreme Court asked the Election Commission to clarify its position on the PIL seeking a lifelong ban on candidates convicted in criminal cases.*

*The present article describes the extent of criminalization in Indian Politics and analyzes: Why do criminals want to join politics? Why do political parties want criminals to join them? Why do people want criminals as their representatives?*

## Introduction

Criminalization of politics means: When politics or political power is used by self-interest-seeking persons for peculiar gains or various other advantages such as to get special position in administration or to rise to the higher stage of administration which is normally not feasible.

Criminality in politics, or more pointedly, criminals sitting in our Parliament and legislatures, is an issue that has for long been debated and has also been at the forefront of reform proposals sent by the Election Commission of India (ECI) to the government.

In 2004, 24% of candidates had criminal charges against them; in 2014, 37% did. There is evidence of thugs being used for booth capturing and voter intimidation and rather than being hired by politicians, they want to be politicians themselves.

Around 20% of the members of the current Lok Sabha have criminal cases pending against them. The charges in several of these cases are of heinous crimes such as murder, robbery, kidnapping, and not just violation of Section 144, or something similar.

This process of criminalization is influencing the mind and the will of the people both to gain the majority to rule the country according to their will. The system of democracy is now changing into the dictatorship of some.

## Criminalization of Politics: Components

- ▶ **Muscle Power:** The politicians are thriving today on the basis of muscle power provided by criminals. The common people who constitute the voters are in most cases too reluctant to take measures that would curtail the criminal activities. Once the political aspect joins the criminal elements, the nexus becomes extremely dangerous. Many of politicians chose muscle power to gain vote bank in the country, and they apply the assumption that, if we are unable to bring faith in the community then we can generate fear or threat to get the power in the form of election.
- ▶ **Money Power:** The elections to Parliament and State Legislatures are very expensive and it is a widely accepted fact that huge election expenditure is the root cause for corruption in India. A candidate has to spend lakhs of rupees to get elected and even if he gets elected, the total salary he gets during his tenure as an MP/MLA will be meagre compared to his election expenses.

## Causes of Criminalization of Politics

- ▶ **Vote Bank politics:** The political parties and independent candidates do expenditure for vote buying and other illegitimate purposes through these criminals.

They provide help in carrying on unlawful activities during strikes, bandhs, rallies, etc. And when such criminals attain the designation of political leaders, they attempt to accomplish their targets and ambitions on the stake of rules and regulations that should govern them but unfortunately it doesn't.

- ▶ **Corruption:** The roots of corruption lie in the election expenses of the candidates. The expenses incurred by the candidates are much more. As the candidates generally don't have so much money to spend, the funds usually come from the business world or the underworld. Once the candidate becomes an MP, MLA or a minister, he has to reciprocate to his donors in a big way. This is the root cause of corruption.

Corruption at higher levels of political leadership leads to corruption in the bureaucracy and other wings of the administration like the police or the Public Works Department. It spreads from top to bottom. It travels downwards into the entire bureaucratic apparatus and also amongst the civilians. Along with money power, muscle power has also polluted elections. Unfortunately, a large number of our MPs and legislators have criminal records against them.

- ▶ **Denial of Justice and Rule of Law:** The inherent weaknesses within the framework and the body of law itself give rise to criminalization of politics. For example the legal system in itself is so complicated in character and voluminous in size, that it is almost impossible for any ordinary person of average intelligence to grasp it and act in accordance to its tenets.

Then, there are so much exceptions and circumstantial omissions associated with each aspect of law that it becomes very easy for the seasoned and the accomplished practitioners of law to bend it in their favour. The voters, political parties and the law and order machinery of the state are all equally responsible for this.

- ▶ **Crisis of mortality:** Crisis of morality which is a hallmark of a consumerist society. In a society where materialism is glorified over morality, leaders who are also a part of the society tend to shed their responsibility of setting moral

examples and start working towards accumulating more and more wealth and power for themselves. This tendency exaggerates itself when they realize that they can manipulate the tenets of law to their advantage in the way they want by using their wealth and power. It is really disheartening to observe this tendency in the political class of the society which is more acting as a reflection of a diseased society rather than trying to rid the society of the disease, by setting noble examples before it. Having said this, it should not be forgotten that the disease under which the society is reeling today has been given to it, primarily by the same political class which is now working for its perpetuation and trying to exonerate itself out of its responsibility by quoting the presence of such tendencies in the larger society.

## Laws and Regulations

The Supreme Court has importantly passed three orders that relate directly to the conduct of elections.

- ▶ The first relates to the distribution of “freebies”, wherein the ECI has been asked to frame guidelines in consultation with political parties. The guidelines are:
  - It should be made obligatory for each political party to publish and submit their Manifesto to the Election Commission before the deadline of the first phase of the nomination, failure of which should lead to debarring the party from contesting the particular election.
  - To prevent laxity on part of the political parties and candidates on coming to power, strict judicial action should be taken against the political parties for the non-fulfilment of promises made by them during the announcement of election manifestos.
  - Manifesto should be legally binding document on the parties to implement the promises made before the pre-elections so as to avoid the unpractical claims.
  - The political parties should very carefully take the statistical data to be used in the Manifestos from reliable sources, preferably from government documents and database. Moreover, the manifesto should lay down the fiscal roadmaps to achieve such targets and the impact of such commodity on the financial reserves.
  - Due to the strict interpretation of the penal statues of Section 123 of RP Act only candidates and its agents come under its preview. It should encompass its horizons to include political parties as well.
- ▶ The second is directing the installation of the None-of-The-Above (NOTA) button in the Electronic Voting Machines, which has already been implemented.
  - NOTA option gives the voter the right to express his disapproval with the kind of candidates that are being put up by the political parties.
  - For democracy to survive, it is essential that the best available men should be chosen as people’s representatives for proper governance of the country. Thus in a vibrant democracy, the voter must be given an opportunity to choose ‘None of the Above’ (NOTA) button, which will indeed compel the political parties to nominate a sound candidate. This situation palpably tells us the dire need of negative voting.
- ▶ The third is the court’s order of July 10, 2013 in the Lily Thomas vs Union of India matter, wherein the Supreme Court has declared Section 8 (4) of the Representation of the People Act, 1951 unconstitutional.

- The position that prevailed before this order was enacted was that all convicted MPs and MLAs enjoyed a three-month period to appeal against their conviction, and during this period they crucially retained their memberships in Parliament or legislatures respectively.
  - In the changed procedure, they still have the right to appeal, but now they immediately cease to be members the House. While previously they were able to file appeals within the stipulated three months without giving up their membership, they managed, in effect, to remain MPs or MLAs often for long years after their terms had expired. Not only have these orders already impacted the elections under way but they will continue to have a profound impact on cleansing our political system.
  - Every parliamentarian or legislators who stands convicted for an offence that leads to a sentence of imprisonment for two years and more, will also be debarred from contesting an election for six years after his or her prison term ends.
- The RP Act also recognises the principle of fast-tracking, requiring the high court to decide on election petitions within six months. The fact that courts have been taking years to decide on election petitions makes it an issue of dereliction by the judiciary of its statutory obligation, not a deficiency of the law.

In March 2014, SC accepted the urgent need for cleansing politics of criminalisation and directed all subordinate courts to decide on cases involving legislators within a year, or give reasons for not doing so to the Chief Justice of the High Court. The government of India promptly offered full support for the implementation of this order. It is important to see how the SC judgement has been implemented on the ground.

## Conclusion

The criminalisation of politics is not the cause of the dysfunctional democracy in India, but a symptom of greater malaise in our democracy. In the National Election Study (NES 2009), voters were asked whether they would prefer a candidate with a criminal record who gets work done or a clean politician who cannot get their work done. The rural poor said that they would not mind voting for a candidate with a criminal record if the candidate can get their work done. They also preferred an approachable politician to an honest politician. The poor's preference for a politician who can get things done "no matter what" is, in our opinion, because of the daily actions of a state that either treats the poor shabbily all year round, intimidates them, or is simply absent. That needs to be addressed.

In their own long-term interest, all political parties must jointly agree to stop sponsoring criminal candidates.

## INTERNATIONAL ISSUE

# Multilateral Negotiations for a Nuclear Weapons Ban

Context

*United Nations member states have voted overwhelmingly to start negotiations on a treaty to ban nuclear weapons, despite strong opposition from nuclear-armed nations and their allies.*

*In the vote in the UN disarmament and international security committee, 123 nations were in favour of the resolution, 38 opposed and 16 abstained.*

*The negotiation was launched pursuant to a November 2016 vote in the U.N. General Assembly's First Committee.*

*Thus, discussing the salient features of the treaty.*

## Present multilateral disarmament treaty

- ▶ **Comprehensive Nuclear-Test-Ban Treaty (CTBT):** The CTBT prohibits nuclear weapon test explosions. It has not yet entered into force, since three of the 44 required states have yet to sign it and five to ratify it.
- ▶ **International Convention on the Suppression of Acts of Nuclear Terrorism:** The Convention covers a broad range of acts and possible targets, including nuclear power plants and nuclear reactors. It criminalizes the planning, threatening, or carrying out acts of nuclear terrorism.
- ▶ **Treaty Banning Nuclear Tests in the Atmosphere, in Outer Space and Under Water (Partial Test Ban Treaty) (PTBT):** The PTBT requires parties to abstain from carrying out nuclear explosions in any environment where such explosions cause radioactive debris outside the limits of the State that conducts an explosion.
- ▶ **Treaty on the Non-Proliferation of Nuclear Weapons (NPT):** The NPT is a treaty aimed at limiting the spread of nuclear weapons through the three elements of non-proliferation, disarmament, and peaceful use of nuclear energy.

Though there are existing mechanisms to deal with nuclear non-proliferation, but their working has not been satisfactory. Non-nuclear states have accused nuclear powers of blocking efforts in this direction and therefore have assumed responsibility on their own.

- ▶ No nuclear weapons state is ready now to negotiate elimination of its nuclear arsenal.
- ▶ They believe that any progress must be made on an incremental basis.
- ▶ Nuclear powers feel nuclear weapons are necessary for balance of power and maintaining deterrence and therefore don't want to do away with nuclear weapons.

All these were reflected in nuclear powers boycotting the negotiations. For its part, the United States actively opposed the resolution to begin the negotiation and pressured its allies (who benefit from the U.S. nuclear umbrella) to do the same. The growing polarization between nuclear weapons states and non-nuclear weapons states is one of the many challenges facing the nuclear non-proliferation regime.

The Treaty on the Prohibition of Nuclear Weapons was adopted by the conference, formally closing two rounds of negotiations that ran from 27-31 March and 15 June to 7 July. 122 countries voted in favor of the treaty; The Netherlands was the only country to vote against the treaty and Singapore abstained from the vote. The treaty opens for signature on 20 September at the 72<sup>nd</sup> session of the UN General Assembly.

Immediately following the vote, the United States, the United Kingdom, and France released a joint statement declaring that they “do not intend to sign, ratify or ever become party” to the treaty. They stated that the treaty ignores the current international security environment, is incompatible with nuclear deterrence, and threatens to severely undermine NPT and the global non-proliferation regime.

### Objective of talks:

The nuclear weapons ban talks are the fulfillment of a long-standing demand that all countries deserve equal security. The driving force for the demand for a nuclear weapon-free world is a simple humanitarian impulse, the love and compassion for other human beings.

It declared that it is illegal for any country to produce, possess, stockpile, deploy, and threaten to use, or use nuclear weapons.

### Salient features of the treaty

- ▶ States-parties are prohibited to use, threaten to use, develop, produce, manufacture, acquire, possess, stockpile, transfer, station, or install nuclear weapons or assist with any prohibited activities.
- ▶ Signatories are barred from transferring or receiving nuclear weapons and other nuclear explosive devices, control over such weapons, or any assistance with activities prohibited under the Treaty. States are also prohibited from using or threatening to use nuclear weapons and other nuclear explosive devices.
- ▶ Lastly, States Parties cannot allow the stationing, installation, or deployment of nuclear weapons and other nuclear explosive devices in their territory. In addition to the Treaty’s prohibitions, States Parties are obligated to provide victim assistance and help with environmental remediation efforts.
- ▶ A state-party must declare, when joining the treaty, whether it has eliminated a previous nuclear weapons program, currently has nuclear weapons, or holds other countries’ nuclear weapons on its territory. If a state has another country’s nuclear weapons on its territory when it signs the treaty, it must remove them. If it has its own nuclear weapons, it must eliminate them.
- ▶ Non-nuclear-weapon states are required to have, at a minimum, a comprehensive safeguards agreement with the International Atomic Energy Agency (IAEA) “without prejudice” to any future additional agreements.
- ▶ Any State Party may propose an amendment to the Treaty at any time after its entry into force. The UN Secretary-General shall circulate the proposal to all States Parties for consideration. If a majority of States Parties register their support for the proposal within 90 days of circulation, it will be considered at the next meeting of States Parties or review conference. The amendment may be adopted by a positive vote of two-thirds of States Parties.

- ▶ There are two ways for a nuclear-weapon state to accede to the treaty and eliminate its nuclear weapons: it can join the treaty and then destroy its nuclear weapons or destroy its nuclear weapons and then join the treaty. States that “destroy and join” must cooperate with a “competent international authority” designated by the treaty to verify dismantlement. States that “join and destroy” must immediately remove nuclear weapons from operational status and submit a time-bound plan for their destruction within 60 days of joining the treaty.
- ▶ The treaty obligates states-parties to provide victim assistance and environmental remediation to those affected by nuclear weapons use and testing.

### India’s stand

- ▶ India also boycotted the negotiations saying India’s geographical position is vulnerable. It is sandwiched between China and Pakistan and both are nuclear state and hostile towards India, which create constant threat for nuclear attack on India.
- ▶ India’s main argument was that nuclear disarmament talks should only happen at the Conference on Disarmament in Geneva, because the conference works by consensus, which means any state can block progress. India used this feature to try to block the Comprehensive Nuclear Test Ban Treaty in 1996, and Pakistan now uses this power to stop talks on a treaty to ban the production of fissile materials for nuclear weapons.

### Possible gains:

- ▶ If the negotiation produces a treaty, it would have little practical effect without the participation of nuclear weapons states. Such a treaty, however, could increase the political and diplomatic pressure on nuclear weapons states to pursue nuclear disarmament more actively.
- ▶ However, the possible gains will emerge only when the negotiating states can stay united during the course of negotiations, which remains in doubt as some differences cropped up during negotiations.
- ▶ The participating states generally agreed on several core prohibitions to be included in the treaty, such as the prohibition of use, possession, acquisition, transfer, and deployment of nuclear weapons. They disagreed over other provisions.
- ▶ Some states advocated for the prohibition of the threat of use of nuclear weapons, claiming that it would serve to delegitimize nuclear deterrence doctrine. Others thought this prohibition was unnecessary, as the U.N. Charter already outlaws the threat of use of force. Moreover, a ban on the use of nuclear weapons would also ban the threat of their use. Similar differences also emerged on the issue of transit of nuclear weapons, their testing.

The attempt at the UN to ban atomic weapons is based on the premise that all countries deserve equal security. Decision for outlawing nuclear weapons heralds an end to two decades of paralysis in multilateral nuclear disarmament efforts. The negotiations have given hope to the humanity that they can see a world without the scourge of nuclear weapons, but the path remains rocky.

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**SOCIAL ISSUE**


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# Supreme Court Judgment on Dowry



*In a landmark judgment, the Supreme Court has issued new directions in dowry-related cases.*

*Highlighting concerns regarding the misuse of anti-dowry law, the Supreme Court said that no arrest or coercive action should be taken without verifying the allegations.*

## Introduction

A dowry is the money or goods that a bride's family gives to her new husband and/or his family when they are married.

The problem of dowry has become a serious social evil among the upper castes and middle classes both in towns and villages. The rules of marriage, namely, caste endogamy and clan exogamy, and anuloma (hypergamy) and pratiloma (hypogamy), have been misinterpreted and misused for maintaining the dowry system.

## Laws against dowry

The Indian criminal laws were comprehensively amended to include dowry as a punishable offence.

### *Indian Penal Code*

- ▶ Section 304B was added to the Indian Penal Code, 1860 (IPC), which made dowry death a specific offence punishable with a minimum sentence of imprisonment for 7 years and a maximum imprisonment for life. It provided that if the death of a woman is caused by burns or bodily injury or occurs in suspicious circumstances within 7 years of her marriage, and there is evidence to show that before her death, she was subjected to cruelty or harassment by her husband or his relative regarding the demand for dowry, then the husband or the relative shall be deemed to have caused her death.
- ▶ Additionally, the judiciary also includes a murder charge under Section 302 IPC as this allows courts to impose death penalty on perpetrators of the offence. Section 406 IPC, pertaining to offences for the criminal breach of trust, applies in cases of recovery of dowry as it is supposed to be for the benefit of the woman and her heirs.
- ▶ Further, Section 498A of IPC was specifically included in 1983 to protect women from cruelty and harassment. The constitutionality of Section 498A was challenged before the Supreme Court of India on grounds of abuse, and for giving arbitrary power to the police and the court. However, it was upheld in *Sushil Kumar Sharma v. Union of India (2005)*. The Code of Criminal Procedure,

1973 provides that for the prosecution of offences under Section 498A of IPC, the courts can take cognizance only when it receives a report of the facts from the police or upon a complaint being made by the victim or her family.

### ***Indian Evidence Act***

- ▶ Further, Section 113B of the Evidence Act, 1872 (Evidence Act), creates an additional presumption of dowry death when it is shown that before her death, the woman had been subjected to cruelty on account of dowry demand. Section 304B of IPC along with Section 113B of the Evidence Act have enabled the conviction of many who were not caught by the Dowry Prohibition Act, 1961.
- ▶ Section 113A of the Evidence Act provides a similar presumption of abetment of suicide (which is an offense under Section 306 of IPC), in case of death of a married woman within a period of seven years of her marriage.

### **Misuse of provisions**

- ▶ Police often visit the office premises of men in order to shame them and jeopardize their job situation.
- ▶ Police also pick up relatives of men who are not even named in the complaint, they are illegally detained by police and forced to give their statements.
- ▶ Judges grant interim bail and then keep on extending the bail for every 5 or 7 days and thus the man is neither arrested nor free but keeps on attending court dates without any reason.
- ▶ After giving interim bail, the cases are referred to mediation where the man is psychologically tortured to bow down before wife's demands and if he does not do so, his bail is canceled and he is sent to jail.
- ▶ Cases linger for years together because judges do not follow the due process in the cases and allow any number of adjournments to the wife when she does not attend the court hearings. Judges do not dismiss the cases even if the wife does not attend the cases for years together. Judges take months together to merely decide on bail petitions.

### **Supreme Court judgment**

- ▶ The judges ruled that the police could no longer make immediate arrests of those accused in cases filed under Section 498A.
- ▶ Instead, a Family Welfare Committee, to be set up in every district, would scrutinise dowry harassment cases. Based on its report, the police would decide whether or not it should act — the assumption being that this would filter out frivolous cases and instances of the law's misuse.
- ▶ There are other reliefs for the accused: bail applications to be decided on the same day, no need for personal appearances in the court, and no need to impound passports if the accused resides outside India. The only exceptions can be in cases where there is "tangible" injury to the victim, or, better still, death.
- ▶ The ruling is truly landmark, for it amounts to a tectonic shift in the way the criminal justice system will look at Section 498A henceforth. From protecting a woman who is tortured for dowry, the emphasis seems to be shifting towards making life easier for the accused.
- ▶ It said that regarding persons residing out of India, the process of impounding of passports or issuance of Red Corner Notice should not be a routine. The apex court also said that personal appearance of all family members and particularly outstation members may not be required and the trial court ought to grant

exemption from personal appearance or permit appearance by video conferencing without adversely affecting progress of the trial. It, however, made it clear that “these directions will not apply to the offences involving tangible physical injuries or death”.

- ▶ In cases where a settlement is reached, it will be open to a district and sessions judge or any other senior judicial officer nominated by him in the district to complete the proceedings including the closing of the criminal case if dispute primarily relates to matrimonial discord.
- ▶ However, the apex court notes that its rulings will not apply to cases involving “tangible physical injuries or death”. This implies that harassment, not amounting to physical injury or death can be allowed to slip.

### **Arguments against the judgment**

The victim remains ignored in the judgment. As a result of these constraints, thousands of genuinely distressed women will not be able to access justice.

A total of 24,771 dowry deaths have occurred in India from 2012 to 2014, averaging more than 20 dowry deaths every single day. Thus, Section 498A is not only relevant but also vital for the protection of genuine victims. Alleged, perceived, and sometimes even some genuine cases of misuse of this law should not endanger the huge number of women who are in genuine distress. It is time to remember that the object of the law and democracy require that our suffering women be protected and not that safeguards for accused be constantly created.

# Prelims News



## Context

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

## Indian Culture

### PAIKA REBELLION

#### Context:

- ▶ Odisha government decided to make a formal demand to the Centre for declaring Paika Rebellion of 1817 as the first war of independence in Indian history.

#### About Paika Rebellion

- ▶ The **Paika Rebellion** was an armed rebellion against the British East India Company's rule in Odisha in 1817.
- ▶ Paikas were essentially the peasant militias of the Gajapati rulers of Odisha who rendered military service to the king during times of war while taking up cultivation during times of peace. They unfurled the banner of rebellion against the British under the leadership of Baxi Jagandhu Bidyadhara as early as 1817 to throw off the British yoke.

#### History behind Paika rebellion

- ▶ The British, having established their sway over Bengal Province and Madras Province to the north and south of Odisha, occupied it in 1803.
- ▶ The Gajapati King of Odisha Mukunda Deva-II was a minor then and initial resistance by Jai Rajguru, the custodian of Mukunda Deva-II, was put down brutally and Jai Rajguru was torn apart alive. A few years later, it was the Paikas under Baxi Jagabandhu, the hereditary chief of the militia army of the Gajapati King, rose in rebellion, taking support of tribals and other sections of society.

#### Reason for revolt

- ▶ The Paika were alienated by the British regime, who took over the hereditary rent-free lands

granted to them after the conquest of Khurda. They were also subjected to extortion and oppression at the hands of the company government and its servants.

#### Initiatives

- ▶ The Paikas attacked British symbols of power, setting ablaze police stations, administrative offices and the treasury during their march towards Khurda, from where the British fled.
- ▶ The Paikas were supported by the rajas of Kanika, Kujang, Nayagarh and Ghumusar and zamindars, village heads and ordinary peasants.

### AANAYOOTTU

#### Context:

- ▶ The Aanayoottu (feeding of elephants) is a festival held in the precincts of the Vadakkunnathan temple in City of Thrissur, in Kerala.
- ▶ The festival falls on the first day of the month of Karkkidakam (timed against the Malayalam calendar), which coincides with the month of July.
- ▶ It involves a number of unadorned elephants being positioned amid a multitude of people for being worshipped and fed. A large number of people throng the temple to feed the elephants.
- ▶ The special feed of the elephants includes sugar-cane leaves, coconut, jaggery and the sweet mix of Ganapathi pooja prasadam.

## Science and Environment

### SHRINKING OF CAUVERY DELTA

#### Context:

- ▶ In a recent study it has been found that the Cauvery Delta region is shrinking and the cultivable lands are increasingly deteriorating into waste lands.

#### Findings of the report:

- ▶ Researchers have tracked land use and changes to land cover to show that the delta region has shrunk by 20%.
- ▶ Anthropogenic factors such as diversion of land for non-agricultural purposes, as well as factors linked to climate change are the causes behind shrinkage of delta.
- ▶ Reduction in crop cover and a 13-fold increase in wastelands between 1971 and 2014 indicate a worrisome situation.
- ▶ Mangrove cover has increased 14 times since 1971 in the region as sea water ingress (entering) has grown in the coastal areas. This causes more cultivable agricultural land to come under sea water and the soil is turning saline.
- ▶ Cauvery delta has witnessed a decline of 80% in sediment deposit over the last century.

### TIGER NUMBERS GOING UP

#### Context:

- ▶ According to the World Wildlife Society India findings - India's tiger population has risen steadily in the past decade after it dipped to 1411 in 2007 and is now estimated to range between 2500 and 3000.
- ▶ India today has almost twice the number of tigers than it did a decade ago, however, the threats to India's big cats remain as potent as ever. India's reported tiger deaths related to poaching peaked in 2016. There are 50 poaching related deaths in 2016.

#### Threats to Habitat

- ▶ Tiger is a conservation dependent species, there are issues of poaching, conflict, habitat degradation.
- ▶ Tiger habitats include prime reserves and corridors which are continuously under threat. India Launched Project Tiger in 1973 and the National Tiger Conservation Authority (NTCA) in 2006.

- ▶ NTCA came as a response to the drastic fall in tiger numbers as highlighted by the local extinction of tigers in Sariska and Panna Tiger reserves.
- ▶ In the decade since then, population in the reserves has rebounded, however, the threats to tiger habitats persisted in different forms. For ex - The Ken Betwa river linking project that was cleared by the Environment ministry this year threatens to submerge about 30% of the Panna, a proposed national highway will sear through the core area of Corbett tiger reserve in Uttarakhand, and a stretch of the National Highway 7 dissecting the vital Kanha-Pench corridor is coming up with inadequate measures to accommodate wildlife movement.
- ▶ In 2017, already 22 cases of poaching-related deaths have come to light. Data from the NTCA revealed that Maharashtra recorded 16 tiger deaths in 2017 so far - 12 natural deaths and four cases of body parts seizures. As compared, Madhya Pradesh with 308 tigers, recorded 14 tiger deaths in 2017 so far - 13 owing natural causes and one case of body part seizure.

#### **Tiger Deaths in India 2017: NTCA**

76 tiger deaths : Natural causes : 62 + Body parts seized: 14

#### **Tiger Deaths in India 2017: WPSI**

Total: 73 = Poaching and seizures: 22 + Found dead: 19 + Killed in road or rail accidents: 1 + Died during rescue or treatment: 7 + Infighting: 20 + Fight with other animals: 4

#### **Tigers as Protectors**

- ▶ India's national animal, the carnivorous big cat serves to protect other vulnerable species as well. In the name of protecting the majestic big cats, the country has managed to hold onto wildlife habitats that would otherwise be lost to human intrusions in an extremely land-scarce country.
- ▶ The need of the hour is to secure their habitats and corridors, to enhance protective cover of those outside of Protected Areas. Tigers are big cats, if they are protected, they will bounce back especially in areas where tiger population is below optimum.

### **SAFE HAVEN FOR ENDANGERED EGYPTIAN VULTURES**

#### Context:

- ▶ Breeding of the rare and threatened Egyptian vultures has been seen in human habitat at the Punjabi University campus in Patiala.

**IUCN status**

- ▶ The Egyptian vulture ( *Neophron percnopterus*), one among the globally threatened vulture species found in India, is classified under the 'Endangered' (EN) red list of the International Union for Conservation of Nature (IUCN). The species is popularly known as "safed giddh" (white vulture) in Hindi.

**Population**

- ▶ According to Birdlife International, a global partnership of organisations working for the conservation of birds, the present global breeding population of the Egyptian vulture is estimated to be 12,000 to 38,000 individuals.

**Food**

- ▶ The species rarely hunt its food-the birds mostly feed on dead carcasses of animals, birds and reptiles. They eat eggs and sometimes, in the absence of animal carcasses, switch over to household solid waste like rotten fruits and vegetables

**Habitat**

- ▶ Egyptian vultures usually build their nests on the cliffs of mountains, roofs of buildings and on tree-tops. Very few colonies of Egyptian vultures are left in Punjab, and the largest colony of the bird has been spotted near Ropar, on a site where carcasses of dead animals are dumped.
- ▶ This scavenger has found an undisturbed and safe roosting space in the Punjabi University Campus in Patiala campus and hence it is breeding successfully.
- ▶ Within a two-year-plus period, between summer-monsoon 2015 and summer-monsoon 2017, its population has increased from one breeding pair to eight individuals at present.

**WORLD'S NORTHERNMOST CORAL REEFS BLEACHED****Introduction**

- ▶ Bleaching has damaged the world's northernmost coral reef in Japan.
- ▶ About 30 percent of the coral reef off the coast of Tsushima island in Japan, which lies in the temperate zone some 1,000 kilometres southwest of Tokyo, suffered bleaching

**About coral bleaching**

- ▶ Coral bleaching is the process by which corals lose their colouration and turn a ghostly white.

- ▶ This happens when they become overly stressed especially when exposed to warmer than normal temperatures and excessive sunlight (normally over 4-6 weeks).

**Significance of corals**

- ▶ Healthy coral reefs protect shores from storms and offer habitats for fish and other marine life, including ecologically and economically important species.

**What happens when corals bleach?**

- ▶ When corals bleach they are actually expelling the brown algae that they grow within their body tissues. Corals expel the algae because high temperatures cause the algae to produce toxic compounds.
- ▶ The expulsion of the algae makes the corals appear a brilliant white - which is due to skeletons being visible through their translucent coral tissue.

**What is the connection between bleaching and climate change?**

- ▶ Coral bleaching is one of the most visual indicators of thermal stress due to climate change. It is a phenomenon caused by ocean warming. The oceans have absorbed 93% of the heat from climate change and are now significantly warmer than they were 50 year ago.
- ▶ The heat that is causing reefs to turn white represents the momentum of climate change - it will increasingly impact our weather, climate and rainfall for decades to come until a new equilibrium is reached. This hidden energy could also trigger runaway heating if the ocean's methane deposits are released. It is why coral reefs are often referred to as "the canary in the coalmine."

**GANGOTRI GLACIER RETREATED 0.15 SQ. KM. IN 9 YEARS****Context:**

- ▶ The Gangotri glacier has retreated 0.15 sq km between 2007 and 2016.

**About Gangotri glacier**

- ▶ The Gangotri, one of the largest Himalayan glaciers, is in Uttarkashi district. Originating at about 7,100m above sea level, the glacier is 30.2km long and has a width that varies between 0.5 and 2.5km.

- ▶ The Bhagirathi, one of the main tributaries of the Ganga, originates from the glacier, which has retreated more than 1,500 metres in the last 70 years.

#### Reasons for decline?

- ▶ This increased melt rate/descent is largely due to warming up due to emission of green house gases. But increased human interference is also not a good sign for the glacier's health.
  - ▶ Himalayan glaciers are rapidly retreating, with a gradual increase in droughts, flash floods, and landslides
- " India's growing economy, a rising level of sediment in regional rivers is creating havoc for many grids.

#### Impact of decline in glaciers

- ▶ There is likely to be increased severity and frequency of monsoonal storms and flooding in the Himalayas, which are expected outcomes of climate change, may significantly alter the area's erosion, river discharge, and sediment dynamics.
- ▶ Eventually, this may affect existing hydropower reservoirs, as well as those planned for construction in the Himalayas.
- ▶ Part of the generated sediment may be deposited on agricultural lands or in irrigation canals and streams, which will contribute to deterioration in crop production and in the quality of agricultural lands.

#### Government initiatives

- ▶ Major initiatives taken under the National Mission for Sustaining the Himalayan Ecosystem (NMSHE) under the National Action Plan on Climate Change (NAPCC) include establishment of a Centre for Himalayan Glaciology at the Wadia Institute of Himalayan Geology in Dehradun and setting up of six thematic task forces.
- ▶ Climate change centres have been set up in Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Manipur, Mizoram, Tripura, Sikkim, Arunachal Pradesh, Nagaland, Meghalaya and West Bengal.

### **NATIONAL PROGRAMME ON "SCIENTIFIC VALIDATION AND RESEARCH ON PANCHGAVYA"**

#### Context:

- ▶ The Department of Science and Technology (DST), Government of India has constituted a National Steering Committee to initiate a

National Programme on "Scientific Validation and Research on Panchgavya" (SVAROP).

#### Panchagavya Therapy

- ▶ Panchagavya is a collective name of five products obtained from cow viz milk, curd, ghee, urine and dung. Panchgavya has its medicinal and therapeutic uses mentioned in the authoritative books of Ayurveda listed in the first Schedule of the Drugs and Cosmetics Act, 1940. Cow urine is ingredient of several Ayurvedic formulations and also used as adjuvant with medicinal formulations and for pharmaceutical processing called Shodhana (Purification) and Bhavana (Trituration) of medicinal materials.

#### Research on Panchgavya

- ▶ Council of Scientific and Industrial Research (CSIR) through its constituent laboratories has conducted research studies in collaboration with Go Vigyan Anusandhan Kendra, Nagpur on cow urine distillate for its antioxidant and bio-enhancing properties on anti-infective and anti-cancer agents and nutrients.
- ▶ Central Council for Research in Ayurvedic Sciences (CCRAS), an autonomous Ayurvedic research organization of the Central Government, has undertaken study to evaluate the immune-modulatory activity and safety/toxicity of Panchgavya Ghrita, which is an Ayurvedic formulation made from cow's five products (milk, curd, ghee, urine and dung) as mentioned in Ayurvedic classical texts and Ayurvedic Formulary of India, Part I.
- ▶ Central Council for Research in Ayurvedic Sciences has conducted a National Seminar on Panchagavya Chikitsa in the year 2014 for promotion and awareness building and brought out a compilation document of published research papers on Panchagavya and its ingredients. The published research papers on Panchagavya have been uploaded in the 'AYUSH Research Portal' for ready access to the public.

## **Polity and Governance**

### **PRADHAN MANTRI VAYA VANDANA YOJANA**

#### Context:

- ▶ PMVVY is a Pension Scheme announced by the Government of India exclusively for the senior

citizens aged 60 years and above which is available from 4th May, 2017 to 3rd May, 2018.

#### **Salient features of scheme**

- ▶ The Scheme can be purchased offline as well as online through Life Insurance Corporation (LIC) of India which has been given the sole privilege to operate this Scheme.
- ▶ Scheme provides an assured return of 8% p.a. payable monthly (equivalent to 8.30% p.a. effective) for 10 years.
- ▶ The scheme is exempted from Service Tax/ GST.
- ▶ On survival of the pensioner to the end of the policy term of 10 years, Purchase price along with final pension installment shall be payable.
- ▶ Loan upto 75% of Purchase Price shall be allowed after 3 policy years (to meet the liquidity needs). Loan interest shall be recovered from the pension installments and loan to be recovered from claim proceeds.
- ▶ The scheme also allows for premature exit for the treatment of any critical/ terminal illness of self or spouse. On such premature exit, 98% of the Purchase Price shall be refunded.
- ▶ On death of the pensioner during the policy term of 10 years, the Purchase Price shall be paid to the beneficiary.

#### **AAJEEVIKA GRAMEEN EXPRESS YOJANA**

##### **Context:**

- ▶ The government of India has launched **Aajeevika Grameen Express Yojana (AGEY)**, to provide an alternative source of livelihood to members of Self Help Groups (SHGs).
- ▶ This scheme has been launched under Deendayal Antyodaya Yojana - National Rural Livelihoods **Mission (DAY-NRLM)**.

##### **Objectives**

- ▶ The main objective of AGEY is to provide an alternative source of livelihood to members of SHGs under DAY-NRLM by facilitating them to operate public transport services in backward rural areas.
- ▶ This will provide safe, affordable and community-monitored rural transport services like e-rickshaws, three and four wheeler motorised transport vehicles to connect remote villages with key services and amenities including access

to markets, education and health for the overall economic development of the area.

- ▶ The sub-scheme will be implemented in 250 blocks in the country on a pilot basis for a period of three years from 2017-18 to 2019-20.

#### **About Deendayal Antyodaya Yojana**

- ▶ The Mission aims at creating efficient and effective institutional platforms of the rural poor enabling them to increase household income through sustainable livelihood enhancements and improved access to financial services.
- ▶ The financial support under the programme is mainly in the form of Revolving Fund and Community Investment Funds, given as grants to the Self Help Groups (SHGs) and their federations.
- ▶ The programme has a special focus on women empowerment including a dedicated component for promoting farm and non-farm based livelihoods for women farmers in rural areas. In addition, start-up enterprises at village levels are also supported to promote entrepreneurial activities in those areas.

#### **PRADHAN MANTRI MATRITVA VANDANA YOJANA**

##### **Context:**

- ▶ Indira Gandhi Matritva Sahyog Yojana has been renamed as Pradhan Mantri Matritva Vandana Yojana.
- ▶ Under this government would provide Rs. 6000 aid to pregnant and lactating mothers for the first live birth.

##### **Objectives**

1. Providing the partial compensation to working women against their wage loss and ensure their proper rest nutrition.
2. Improving the health of pregnant women and lactating mothers and reducing the effects of under-nutrition through cash incentives.

##### **Benefits**

- ▶ The scheme would benefit pregnant women and lactating mothers for the birth of their first live child. The benefit amount would be sent directly to the bank account of the beneficiary through DBT mode.

##### **Exemption**

- ▶ Pradhan Mantri Matritva Vandana Yojana (PMMVY) would not be applicable for the

following category of pregnant women and lactating mothers

1. Those who are in regular employment with central or state government or any public sector undertaking.
2. Those who are the recipients of similar benefits under any other scheme or law.

### **INDIAN COMMUNITY WELFARE FUNDS** **REVISED**

#### **Context:**

- ▶ The government has revised guidelines for Indian Community Welfare Funds.

#### **About the fund**

- ▶ Overseas Indian workers duped by unscrupulous intermediaries in the host countries, runaway house maids, those who become victim of accidents, deserted spouses of overseas Indians or undocumented overseas Indian workers in need of emergency assistance or any other overseas Indian citizens who are in distress would be the main beneficiaries of the Fund. The Fund will also be utilized to meet the expenditure for airlifting the mortal remains of overseas Indian citizens to India on a means tested basis, on the recommendation of respective Heads of Missions.

**The Indian Community Welfare Fund (ICWF) is aimed at providing 'on site' welfare services on a means tested basis in the most deserving cases including:**

- ▶ Boarding and lodging for distressed overseas Indian workers in Household / domestic sectors and unskilled labourers
- ▶ Extending emergency medical care to the overseas Indians in need
- ▶ Providing air passage to stranded overseas Indians in need
- ▶ Providing initial legal assistance to the overseas Indians in deserving cases
- ▶ Expenditure on incidentals and for airlifting the mortal remains to India or local cremation/burial of the deceased overseas Indian in such cases where a sponsor is unable or unwilling to do so as per the contract and the family is unable to meet the cost.
- ▶ Apart from assisting Indian nationals in distress abroad, ICWF has been a critical support in emergency evacuation of Indian nationals in conflict zones in Libya, Iraq, Yemen, South

Sudan and other challenging situations like assistance extended to undocumented Indian workers in the Kingdom of Saudi Arabia during the Nitaqat drive in 2013 and the ongoing Amnesty drive in 2017.

- ▶ The scale and speed of these evacuations and assistance rendered through the Fund has been universally appreciated. It has also created a sense of confidence among the migrant workers going overseas about the support they can expect from India during critical times.
- ▶ ICWF stands extended to all Indian Missions and Posts abroad and is primarily funded by levying service charge on various consular services rendered by Indian Missions and Posts abroad.

#### **Recent changes**

- ▶ The revised guidelines being made broad-based seek to expand the scope of welfare measures that can be extended through the Fund. The guidelines would cover three key areas namely Assisting Overseas Indian nationals in distress situations, Community Welfare activities and Improvement in Consular services. They are expected to provide Indian Missions and Posts abroad greater flexibility in swiftly addressing to requests for assistance by Overseas Indian nationals.

### **BILL ON MOB VIOLENCE**

#### **Context:**

- ▶ All India Majlis-e-Ittehadul Muslimeen (AIMIM) chief and Lok Sabha MP Asaduddin Owaisi sent notice of a private members' Bill to combat incidents of mob lynchings.

#### **Provisions of the Bill**

- ▶ The Bill enjoin penalties of a minimum of ten years imprisonment on public servants for "acts of omission".
- ▶ The Bill criminalizes the act of mob violence as well as acts of omission by public servants.
- ▶ Provisions such as the establishment of Special Courts for the trial of mob violence, with judges for the same being appointed by a collegium of the five senior-most judges of the High Court are in the Bill.
- ▶ The Special Courts shall also have the additional responsibility of receiving complaints of mob violence, and has the responsibility of setting up Special Investigation Teams (SIT) and appointing a public prosecutor. The SIT and

public prosecutor, besides reporting to the Special Court, shall also be under the supervision of the Supreme Court (via the appointment of an amicus curiae).

- ▶ Punishment of up to life imprisonment for those found guilty of engaging in mob violence, and special compensation and witness protection are also included in the Bill.
- ▶ The most significant portion of the Bill is, however, the awarding of penalties on public servants for failing to investigate properly due to malafide intentions or wilful neglect of their duties.
- ▶ Mob violence has been defined to include "any act where two or more persons injure, harm, oppress, and threaten any person's enjoyment of a right guaranteed under the Constitution of India or on the basis of their identity."

### **RURAL HEALTH STATISTICS (RHS) 2016**

#### **Context:**

- ▶ The Ministry of Health and Family Welfare brings out an annual publication titled Rural Health Statistics, which provides detailed data on rural health infrastructure, human resources, facilities, training etc. in order to cater to the needs of health planners, policy makers, other government and non-government organisation and research institutions working in the field of Health and Family Welfare.

#### **Why do we need such Statistics?**

- ▶ Government at various levels strives to ensure availability of health care services to the people even in the remote places. This requires addressing the needs of population by fully utilizing the existing capacities in the most effective and efficient manner, in addition to creating capacities by way of additional infrastructure, human resources etc. and introducing new programmes.
- ▶ To achieve these objectives, availability of credible and real time data is necessary and Rural Health Statistics serves this purpose.

#### **Findings of Rural Health Statistics 2016**

- ▶ As on 31st March, 2016, there were 1,55,069 Sub Centres, 25,354 Primary Health Centres (PHCs) and 5,510 Community Health Centres (CHCs) functioning in the country. While the Sub Centres, PHCs and CHCs have increased in number in 2015-16, the current numbers are not sufficient to meet their population norm.

#### **Sub-Centres**

- ▶ Number of existing Sub-Centres increased from 146,026 in 2005 to 155,069 by March 2016. There is significant increase in the number of Sub Centres in the States of Rajasthan (3,896), Gujarat (1,527), Chhattisgarh (1,368), Karnataka (1,189), Jammu & Kashmir (926), Odisha (761), Tripura (949) and Madhya Pradesh (318).
- ▶ There has been an addition of 1414 Sub Centres, during the year 2015-16. Significant increase in the number of Sub-Centres have been reported in the States of Gujarat (738), and Jammu & Kashmir (540).

#### **Primary Health Centres (PHCs)**

- ▶ Number of PHCs has increased by 2,118 during the period 2005-2016. Significant increase is observed in the number of PHCs in the States of Karnataka (672), Assam (404), Rajasthan (367), Jammu & Kashmir (303), Chhattisgarh (273), Gujarat (244) and Bihar (154).
- ▶ The number of PHCs has increased by 46 during the year 2015-16. Significant increases in the number of PHCs have been observed in the States of Gujarat (67) and Arunachal Pradesh (26).
- ▶ Number of ANMs at Sub-Centres and PHCs has increased from 1,33,194 in 2005 to 2,19,980 in 2016 which amounts to an increase of about 65.2%.
- ▶ Percentage of PHCs functioning in government buildings has increased significantly from 78% in 2005 to 91.5% in 2016. This is mainly due to increase in the government buildings in the States of Uttar Pradesh (1,557), Karnataka (806), Gujarat (420), Assam (394), Madhya Pradesh (391), Maharashtra (229) and Chhattisgarh (318).
- ▶ The number of allopathic doctors at PHCs has increased from 20,308 in 2005 to 26,464 in 2016, which is about 30.3% increase.
- ▶ Shortfall of allopathic doctors in PHCs was 12.8% of the total requirement for existing infrastructure.

#### **Community Health Centres**

- ▶ Number of CHCs has increased by 2,164 during the period 2005-2016. Significant increase is observed in the number of CHCs in the States of Uttar Pradesh (387), Tamil Nadu (350), West Bengal (254), Rajasthan (245), Odisha (146),

Jharkhand (141), Kerala (119), Madhya Pradesh (105) and Assam (51).

- ▶ There has been an increase of 114 CHCs as on March 2016 when compared to the numbers reported on March, 2015. Significant increase in the number of CHCs is observed in the State of Bihar (78).
- ▶ Number of CHCs functioning in government buildings has also increased during the period 2005-2016. The percentage of CHCs in Govt. buildings has increased from 91.6% in 2005 to 97.7% in 2016.
- ▶ Significant increase in the number of paramedical staff is also observed in 2016 when compared with the position of 2005.
- ▶ In addition to 4,192 Specialists, 13,207 General Duty Medical Officers (GDMOs) are also available at CHCs as on 31st March, 2016.
- ▶ There was huge shortfall of surgeons (84.0%), obstetricians & gynaecologists (76.7%), physicians (83.2%) and paediatricians (80.1%). Overall, there was a shortfall of 81.0% specialists at the CHCs vis-à-vis the requirement for existing CHCs.

#### Comparison of Manpower with previous year

- ▶ While number of Sub-Centres, PHCs and CHCs has increased during the year 2015-16, the number of Doctors at PHCs and Radiographers at CHCs declined, though marginally from the position in 2014-15.
- ▶ The number of allopathic doctors at PHCs (Statement 14) decreased marginally from 27,421 in 2015 to 26,464 in 2016. Major reduction is observed in States of Bihar (735), Assam (423), Himachal Pradesh (147), Jharkhand (101), Jammu & Kashmir (73), Karnataka (63) and Madhya Pradesh (53). Although, there is increase in the number in state of Tamil Nadu (376) and Gujarat (216).
- ▶ Regarding the specialist doctors at CHCs, the number has increased marginally from 4,078 in 2015 to 4,192 in 2016. Major increases have been noticed in the States of Tamil Nadu (76), Gujarat (74), Madhya Pradesh (26) and Punjab (23).

#### IIITS NOW INSTITUTES OF NATIONAL IMPORTANCE

##### Introduction

- ▶ The Scheme of Setting up of 20 new IIITs in Public Private Partnership (IIIT PPP) approved by the Union Cabinet in 2010 does not have

provision which empowers the Institutes set up in Public Private Partnership to grant degrees to its students.

- ▶ Recently, the Lok Sabha has passed a Bill to declare the Indian Institutes of Information Technology (IIIT) established under the public-private partnership (PPP) route as Institutes of National Importance (INIs).
- ▶ Minister of Human Resource Development (MoHRD) Prakash Javadekar said that as PPP did not mean there would be fee hikes. Fees were not the only source of revenue for the institutions, and they would raise funds from research grants and projects.
- ▶ There might be a slight increase for those who have the capacity to bear. But for the poor students, there will be scholarships. PPP model is much needed as more investment is required to make education competitive for increasing employability.

#### **Benefits of Declaring them as Institutions of National Importance**

- ▶ This will entitle them to use the nomenclature of Bachelor of Technology (B.Tech) or Master of Technology (M.Tech) or PhD degree as issued by a University or Institution of National Importance.
- ▶ The grant of a formal degree in Information Technology, Engineering or PhD will enhance the prospects of the graduating students in the job market and will also enable the Institutes to attract enough students required to develop a strong research base in the country in the field of information technology.
- ▶ The emerging needs of the industry and the economy, as a whole for skilled technical manpower is expected to be met from the talent pool of trained personnel of the institutes.
- ▶ Every Institute shall be open to all - irrespective of gender, caste, creed, disability, and domicile, and ethnicity, social or economic background.

## **Economy News**

### **CENTRE MULLS USE OF KYC FOR BITCOINS**

#### Context:

- ▶ In a recent statement, RBI had warned that any user, holder, investor and trader dealing

with virtual currencies would be doing so at his/her own risk. RBI has also cautioned about the potential financial, legal and security risks arising from their usage.

- ▶ The government said that use of virtual currencies like Bitcoins is not authorized by our central bank and could result in breach of anti-money laundering provisions. The absence of counter parties in usage of virtual currencies like Bitcoins, for illicit and illegal activities in anonymous/pseudonymous systems could subject the users to unintentional breaches of anti-money laundering and combating the financing of terrorism laws.

#### Bitcoin basics

Bitcoins are virtual currencies created in 2008 by an anonymous person calling himself Satoshi Nakamoto. He created a system where in these currencies could be created (mined) by those who could solve some complex algorithmic equations. Every bitcoin transaction is recorded and verified in an open ledger called block-chains, thus preventing counterfeiting or double spending.

#### How to use Bitcoin?

We have to first acquire a bitcoin wallet through one of the sites buying and selling bitcoins. Then we have to transfer funds from our bank to the wallet which can then be used to buy bitcoins. The bitcoins can be stored in the wallets, on your desk-top or mobile, or in the cloud until put to use.

Further, Bitcoins can be used to buy products and services from various websites including Microsoft and Dell. Many gift cards can also be purchased with bitcoins that can be used on online retail stores such as Amazon, Walmart and Target.

But Bitcoin is not a substitute for normal currency.

- ▶ The study estimates state wise investment potential, ranks their competitiveness on six pillars namely -
  - Land
  - Labour
  - Infrastructure
  - Economic Climate
  - Political Stability and Governance
  - Business Perception

#### Key Findings of the Study

- ▶ Among the six states Haryana and Telangana have made the most gains on the index over the past year, moving up 12 and 8 spots respectively.
- ▶ On the other hand, West Bengal, Chhattisgarh, Rajasthan and Uttarakhand have fallen the most. Despite West Bengal Ranking last on the index, followed by Uttar Pradesh and Bihar, these states do fare better on sub-indices. Bihar, for example, does better on labour; Uttar Pradesh on land and West Bengal on economic climate.
- ▶ Economic Power house Maharashtra ranks eighth on the index, down three ranks from last year. Karnataka, the Start Up hub, ranks ninth on the index.
- ▶ Delhi fares poorly on governance and political stability.
- ▶ On the infrastructure pillar, Maharashtra, Karnataka and Odisha moved closer to the frontier, while Uttarakhand and Assam moved further away.
- ▶ West Bengal made the most gains on the economic climate and governance pillars, while Telangana, Punjab, Haryana and Kerala made significant gains under the Business perception pillar.
- ▶ While corruption continues to be a sore area for businesses, the report finds perceptions of corruption seem to be improving, indicating change. The percentage of respondents citing corruption as a constraint for conducting business has fallen from 79 per cent in 2016 to 57 per cent in 2017. Getting approvals also continue to be a constraint. But, an improvement is seen on this parameter, too, with the percentage of firms reporting it as a constraint having fallen from 72 per cent to 53 per cent.

### NCAER STUDY ON COMPETITIVENESS OF STATES

#### Context:

- ▶ In a new study, National Council for Applied Economic Research (NCAER) found that Gujarat, Delhi, Andhra Pradesh, Haryana, Telangana and Tamil Nadu are the six states in India for Business investment potential.

## SECOND PHASE OF BHARATNET

### Context:

- ▶ Union Cabinet has approved the second phase of the BharatNet project that forms the backbone for the government's Digital India initiative. However, the deadline for the delay-marred project had been pushed to March 2019.

### About project

- ▶ The BharatNet project, earlier National Optical Fibre Network or NOFN, seeks to bring high-speed broadband to all 2.5 lakh gram panchayats through optical fibre. It was approved by Cabinet in 2011 and deadline was fixed by end of 2013 then deferred to September 2015 by UPA Government. The Narendra Modi-led government re-examined project status and set target to complete roll out by end of 2016. This was later delayed to December 2018.

### National Optical Fibre Network (NOFN)

- ▶ National Optical Fibre Network (NOFN) is an ambitious initiative to trigger a broadband revolution in rural areas. NOFN was envisaged as an information super-highway through the creation of a robust middle-mile infrastructure for reaching broadband connectivity to Gram Panchayats.
- ▶ The National Optical Fibre Network (NOFN) aims to connect all the 2,50,000 Gram panchayats in the country and provide 100 Mbps connectivity to all gram panchayats (GPs).
- ▶ To achieve this, the existing fibres of PSUs (BSNL, Railtel and Power Grid) were utilised and incremental fibre was laid to connect to Gram Panchayats wherever necessary.
- ▶ Dark fibre network thus created was lit by appropriate technology, thus creating sufficient bandwidth at the Gram Panchayats.
- ▶ Non-discriminatory access to the NOFN was provided to all the service providers like Telecom Service Providers (TSPs), ISPs, Cable TV operators and Content providers to launch various services in rural areas.
- ▶ Based on NOFN experiences, newer, updated and upgraded version - BharatNet was conceived as a nation-wide broadband network.

### BharatNet Vision

- ▶ BharatNet is a project of national importance which aims to establish, by 2017, a highly scalable network infrastructure accessible on a non-discriminatory basis, to provide on

demand, affordable broadband connectivity of 2 Mbps to 20 Mbps for all households. It aims to realise the vision of Digital India, in partnership with States and the private sector.

- ▶ The entire project is being funded by Universal service Obligation Fund (USOF), which was set up for improving telecom services in rural and remote areas of the country. The objective is to facilitate the delivery of e-governance, e-health, e-education, e-banking, Internet and other services to the rural India.

### Implementation

The three-phase implementation of the BharatNet project is as follows:

- ▶ The first phase envisages providing one lakh gram Panchayats with broadband connectivity by laying underground optic fibre cable (OFC) lines by March 2017.
- ▶ The second phase will provide connectivity to all 2,50,500 gram panchayats in the country using an optimal mix of underground fiber, fiber over power lines, radio and satellite media. It is to be completed by December 2018.
- ▶ For success in phase-2, which will also involve laying of OFC over electricity poles, the participation of states will be important. This is a new element of the BharatNet strategy as the mode of connectivity by aerial OFC has several advantages, including lower cost, speedier implementation, easy maintenance and utilization of existing power line infrastructure. The last mile connectivity to citizens was proposed to be provided creating Wi-Fi hotspots in gram Panchayats
- ▶ In the third phase from 2018 to 2023, state-of-the-art, future-proof network, including fiber between districts and blocks, with ring topology to provide redundancy would be created.

## GSTN, CBDT TO SHARE DATA

### Context:

- ▶ The Goods and Services Tax Network (GSTN) and the Central Board of Direct Taxes (CBDT) will soon join hands to share data. According to the GSTN chairman, data exchange and analytics can help stop tax evasion.

### GSTN

- ▶ The Goods and Service Tax Network (or GSTN) is a non-profit, non-government organization. It will manage the entire IT system of the GST portal, which is the mother database for

everything of GST. This portal will be used by the government to track every financial transaction, and will provide taxpayers with all services - from registration to filing taxes and maintaining all tax details.

### Structure of GSTN

- ▶ Private players own 51% share in the GSTN, and the rest is owned by the government. The authorized capital of the GSTN is 10 crore (US\$1.6 million), of which 49% of the shares are divided equally between the Central and State governments, and the remaining is with private banks.
- ▶ The GSTN has also been approved for a non-recurring grant of Rs. 315 crores. The contract for developing this vast technological backend was awarded to Infosys in September 2015.
- ▶ The GSTN is chaired by Mr. Navin Kumar, an Indian Administrative Service servant (1975 batch), who has served in many senior positions with the Govt. of Bihar, and the Central Govt.

**Since the GST Network is going to be such a vast repository of corporate tax data, will the CBDT also have access to this data?**

- ▶ GSTN is busy with registrations and return filing right now. But after some time, when the government will have the data, it will undertake data analytics. Analytics on GSTN data will be helpful, but much more can be done if data from other sources like the Income Tax Department will be integrated.

### Legal issues since the data is confidential

- ▶ Both the data belongs to the government. So, if the government decides it should be done, there will be no legal issues.

### How many people have registered on the GST Network so far?

- ▶ Registrations with respect to people who have not been registered under any previous taxes are fresh registrations. People who are registered under the earlier taxes, majorly VAT, service tax and central excise, their transition to GST is called migration or enrolment. 86 lakh is the figure for enrolment - existing tax payers who are to be migrated to GST.

## **EVEN BEFORE DEMONETIZATION JOBS BARELY GREW: NSSO DATA**

### Context:

- ▶ According to the key indicators of unincorporated non-agricultural enterprises (excluding construction), released by the National Sample Survey Organisation (NSSO), even before demonetization, jobs in the country's informal sector barely grew despite the fact that the number of enterprises rose at a decent pace and wages saw an impressive jump.
- ▶ The latest survey covers the period from July 2015 to June 2016, while the earlier one was from July 2010 to June 2011. The survey is important, as it covers 11.13 crore workers, roughly a fourth of labour force, across 6.3 crore enterprises, 82 per cent of which operate from homes or other permanent structures and are, therefore, not very temporary operators. The aggregate gross value added (GVA) by these enterprises engaged in market production was as much as Rs 11.52 lakh crore in 2015-16.
- ▶ Although the latest survey incorporates certain changes, the methodologies adopted in earlier and the current surveys are more or less similar, so the findings are broadly comparable.

### Findings of the Survey

- ▶ While the number of enterprises witnessed a 10 per cent rise in its latest survey from the one conducted five years earlier, that of workers grew just 2.9 per cent. However, workers' emolument during this period jumped 86.2 per cent.
- ▶ This suggests some of the informal sector enterprises either cut employment or hardly added jobs to protect margins even before the note ban in November last year accelerated the pace of churning in the informal sector.
- ▶ Although agriculture enterprises are not taken into accounts in this survey, analysts say the farm sector has a bearing on the performance of these non-farm entities as well, as the rural economy is still agriculture-driven.
- ▶ Two straight years of drought through 2015 in many parts of India affected farm production and dented growth in rural disposable incomes. Importantly, at 70 per cent, the contribution by enterprises in urban areas to overall GVA was much higher than that of rural enterprises (30 per cent).

- ▶ Maharashtra had the highest share (11.8 per cent) in the aggregate annual GVA at all-India level, followed by UP (11.0 per cent), Tamil Nadu (9.2 per cent), Karnataka (8 per cent) and West Bengal (7.4 per cent). These five states accounted for nearly half of the aggregate annual GVA by the unincorporated non-agricultural enterprises.

### **PAYMENT BANKS FOR THE INFORMAL SECTOR**

#### **Context:**

- ▶ There are two kinds of banking licences that are granted by the Reserve Bank of India - universal bank licence and differentiated bank licence.
- ▶ Payment bank comes under a differentiated bank licence since it cannot offer all the services that a commercial bank offers. In particular, a payments bank cannot lend.
- ▶ It can take deposits upto Rs.1 lakh per account and it can issue debit cards but not credit cards. Commercial banks in India like State Bank of India or ICICI Bank, do not have any such restrictions.

#### **What is the objective of a payment bank?**

- ▶ The main objective is to further financial inclusion by providing small savings accounts and payments/remittance services to migrant labour workforce, low income households, small businesses and other unorganised sector entities.
- ▶ A payment bank can work as a business correspondent (BC) of another bank. They can also distribute simple financial products like mutual fund units and insurance products.

#### **What is the minimum capital requirement for a payment bank?**

- ▶ RBI has mandated the minimum paid-up equity capital for payments bank at Rs.100 crore.

#### **Where can a payment bank deploy its deposits?**

- ▶ Apart from maintaining Cash Reserve Ratio (CRR), these entities have to invest a minimum 75% of demand deposit balances in Statutory Liquidity Ratio (SLR)-eligible government securities or treasury bills with maturity of up to one year and hold a maximum of 25% in current and time/fixed deposits with other commercial banks for operational purposes and liquidity management.

### **Who all are eligible to set up a payments bank?**

- ▶ RBI permits non-bank Prepaid Payment Instrument (PPI) issuers, individuals and professionals, non-banking finance companies (NBFCs), corporate business correspondents (BCs), mobile telephone companies, super market chains, companies, real sector cooperatives that are owned and controlled by residents and public sector entities to apply for a payments bank licence. Setting up of a joint venture by a promoter with an existing commercial bank is also allowed.

## **Miscellaneous News**

### **GLOBAL WITNESS REPORT**

#### **Context:**

- ▶ A new report by the non-profit group Global Witness has been released documenting the the data about the fate of local people trying to protect their land and water in the Middle East Asia, Eastern Europe and Africa.
- ▶ Report documents the violence oppression and killings of the protestors and found that rarely prosecuted murders are being documented in more countries than ever before i.e. 24 countries this year compared to 16 in 2015. Together with criminalizing and aggressively prosecuting protestors, the result of protests is suppression of environmentalists.

#### **Key statistics of the Report**

- ▶ **GLOBAL PICTURE** - Around the world, corporate and political leaders often demonize protestors, sometimes even calling them terrorists as tactics to keep the public from getting involved in these issues. The media portrays protestors as violent even when it's the police or security forces that attack peaceful marches.
- ▶ At least 200 people were murdered last year for protecting the land, water, and wildlife in their communities, including five park rangers in Africa's Virunga National Park, which is home to some of the world's last remaining mountain gorillas.
- ▶ **Unrest in US** - Criminalization and demonization of protestors is reaching new heights in the U.S. The Standing Rock Indian reservation in North Dakota protestors were attacked and injured by militarized police and the National Guard over construction of an oil

- pipeline under Lake Oahe. Some 800 people now face prosecution for protesting.
- ▶ Some countries have even declared martial law to end protests, such as the Philippines and Thailand.
  - ▶ Protestors are often attacked for being anti-growth or anti-jobs, when all many of them want is environmentally sustainable jobs and businesses that don't pollute their air or water.
  - ▶ Countries with pro-business governments are where murders of protestors were most common.
  - ▶ Killings of forest defenders in Brazil have become more brazen under the new business-friendly.
  - ▶ The protection for local and indigenous peoples had been rolled back and documented 49 people who were murdered by loggers and large landowners in the Amazon last year.
  - ▶ Even national parks aren't always safe. At least 20 national park rangers and forest guards were killed in the Democratic Republic of Congo (DRC) and other countries in 2016.
  - ▶ Poachers, militia groups, oil exploration, and corruption are ongoing threats to gorillas, wildlife, and rangers in Virunga National Park in the DRC
  - ▶ In its quest for economic development Nicaragua became the most dangerous place per capita for protestors last year.
  - ▶ Corruption is a global driver of environmental destruction not only in Africa but all over the world. Corruption may take different forms, but the end results can be similar.

### **PANEL FOR BIGGER INDIAN ROLE IN AFGHANISTAN**

#### **Context:**

- ▶ US Senate Panel report has said that India has a critical role to play in breaking the stalemate in Afghanistan. For this purpose Panel called for enhancing trilateral cooperation between Afghanistan India and the US.

#### **India's Stand**

- ▶ India has been cautious while expanding cooperation with the Afghan government. India has a strategic partnership agreement with Afghanistan, but its military component remains limited.

- ▶ The Panel is concerned with the current stalemate in Afghanistan, and believes that the US should leverage the capabilities of allies and partners to more effectively secure regional stability and security.
- ▶ The Panel believes that the United States needs to recommit to the fight in Afghanistan and that India, as a major defence partner of the United States and a contributor to regional security, has a critical role to play in this effort.

#### **Prioritizing Defence Cooperation**

- ▶ This report is accompanied with the National Defense Authorization Act (NDAA) 2018 and also called for enhancing the overall defence cooperation between the US and India and eventually a joint Naval Patrol of the Indian Ocean.
- ▶ The Senate Panel also pulled up the Department of Defense for not making faster progress in improving cooperation between India and the U.S.
- ▶ Report acknowledged the improvement in partnership, besides concerned with a growing gap between the overarching goals of the bilateral defence relationship and the Department's implementation of these objectives.
- ▶ The Panel specifically noted the delay by the Pentagon in designating an individual within the Department to "coordinate and expedite bilateral defence cooperation. According to the lawmakers' body appointing such an individual would bring a refined approach to prioritizing defence cooperation and aligning it with missions like maritime awareness and anti-submarine warfare, and eventually joint naval patrol of the Indian Ocean.

### **INDONESIA RENAMES PART OF SOUTH CHINA SEA**

#### **Context:**

- ▶ Indonesia has renamed the northern areas of its exclusive economic zone in the South China Sea as the "North Natuna Sea" in an act of defiance against Beijing's territorial ambitions in the region.
- ▶ Part of the renamed area falls in China's "nine-dash line" – waters extending hundreds of miles to the south and east of China's island province Hainan.

### Claims in South China Sea

- ▶ Dotted with hundreds small islands, reefs and shoals, the South China Sea is a crucial shipping route and believed to be rich in natural resources, such as oil and gas.
- ▶ China claims the entirety of the sea, but Vietnam, Taiwan, the Philippines, Brunei and Malaysia all have competing territorial claims to parts that are near their respective shores.
- ▶ In recent years, China has invested heavily in building and militarizing artificial islands in the South China Sea.
- ▶ Other nations have deployed military assets to assert their territorial claims on a much smaller scale.

### Previous renaming attempts

- ▶ Indonesia is not the first country to rename part of the South China Sea.
- ▶ In 2011, the Philippines renamed the waters as the "West Philippine Sea" and two years later took the territorial dispute before an international tribunal at The Hague.
- ▶ In July 2016, the tribunal ruled in favor of the Philippines, concluding that China has no legal basis to claim historic rights to the bulk of the South China Sea. China, which had refused to participate in the proceedings, responded by calling the ruling a farce.

### HALF OF THE HIV INFECTED GET TREATMENT NOW: UNAIDS

#### Context:

- ▶ The latest UNAIDS report reveals that more than half of all People Living with HIV (PLHIV) now have access to HIV treatment. Further, globally AIDS-related deaths have almost halved since 2005.

#### Data

- ▶ As of last year, 19.5 million of the 36.7 million HIV+ patients had access to treatment. Deaths caused by AIDS have fallen from 1.9 million in 2005 to 1 million in 2016.
- ▶ India has 2.1 million people living with HIV, with 80,000 new infections annually, as of 2016. In 2005, the annual incidence was 1,50,000 people.

#### Challenges

- ▶ The report states that "although important progress has been made in improving access to medicines for people living with HIV,

insufficient availability and poor affordability of essential medicines in low- and middle-income countries remain major barriers.

#### Steps needed

- ▶ Actions focused on the intersections between intellectual property rights, innovation, and public health are vitally important for resolving market failures in medicine development and manufacture, unmet needs for research and development, and pricing.
- ▶ This is especially true in light of the concentration of the generic pharmaceutical industry in India, and the global AIDS response's continued reliance on the Indian industry, which supplied nearly 90% of antiretroviral medicines in low- and middle-income countries in 2015".
- ▶ The report stated for 90-90-90 target, is the annual scorecard for progress. The idea behind the 90-90-90 target is to diagnose 90% of people who are HIV positive; get 90% of the diagnosed HIV+ people on antiretroviral treatment, and 90% of those on antiretrovirals should be virally suppressed. This is attained when an HIV+ patient's viral load reaches an undetectable level, curbing transmission.

### BILLIONABLES APP

#### Context:

- ▶ BillionAbles is India's first all inclusive online platform to discover accessible places, products and services for persons with disabilities, health disorders, special needs and elderly.
- ▶ Users can filter the search results on the basis of features such as step-free access, Braille and sign language availability or gluten-free food availability.

### KELVIN WAVES

#### Context:

- ▶ According to the study strong winds known as Kelvin waves in eastern Antarctica are causing ice to melt in the west Antarctic Peninsula, located as far away as 6,000 km.

#### About the waves

- ▶ There are two types of Kelvin waves, coastal and equatorial, and they are both gravity driven and non-dispersive. They are often excited by an abrupt change in the overlying wind field, such as the shift in the trade winds at the start of El Niño.

- ▶ Coastal Kelvin Waves balance the Coriolis Force against a Topographic Boundary (i.e., Coastline). They always propagate with the shoreline on the right in the northern and the left in the southern hemisphere.
- ▶ A Coastal Kelvin Wave moving northward along the coast is deflected to the right, but the coast prevents the wave from turning right and instead causes water to pile up on the coast. The pile of water creates a pressure gradient directed offshore and a geostrophic current directed northward.
- ▶ Equatorial Kelvin waves are a special type of Kelvin wave that balances the Coriolis Force in the northern hemisphere against its southern hemisphere counterpart. This wave always propagates eastward and only exists on the equator.

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