



# INSIGHTSIAS

SIMPLIFYING IAS EXAM PREPARATION

- IAS SELF STUDY GUIDE -

## INSIGHTS into EDITORIAL

# OCTOBER 2018

© INSIGHTS ACTIVE LEARNING



# TABLE OF CONTENTS

<b>INSIGHTS into EDITORIAL</b>	<b>3</b>		
1. India's urban mobility and congestion problem	3	18. A security architecture without the mortar	34
2. An ongoing quest for equality	5	19. Unclogging our oceans	36
3. In Parliament's court	6	20. Should India have two time zones?	38
4. Up in the air — on stubble burning	8	21. Lip service to labour rights	40
5. The road to e-vehicle adoption in India	10	22. Ripe for prison reform	41
6. The new deals — on U.S.-Mexico-Canada pact	12	23. Turf battle: on independent payments regulator	44
7. A flight path with obstacles	14	24. Think small: Decentralised sludge management systems	45
8. Rohingya issue: The road to deportation	15	25. Our time begins now	47
9. The backlash against China is growing	17	26. Defusing tensions: on CBI feud	49
10. Power politics at play	19	27. Where India, Japan ties stand now and what is planned for the future	52
11. The diaspora and disasters	21	<b>RSTV, LSTV, AIR - SYNOPSIS</b>	<b>54</b>
12. Another warning on warming	22	1. One World, One Sun, One Grid	54
13. When a woman is harassed at work	24	2. Industrial Revolution 4.0	55
14. The great Indian abdication	26	3. Sikkim India's First Organic State	57
15. Helping the invisible hands of agriculture	28	4. CBI – Central Bureau of Investigation	58
16. Bonding with Africa, in partnership	30	5. Strategic Petroleum Reserve	59
17. Hamstringing the RTI Act	32	6. India's Active volcano	60

# INSIGHTS into EDITORIAL

## 1. INDIA'S URBAN MOBILITY AND CONGESTION PROBLEM

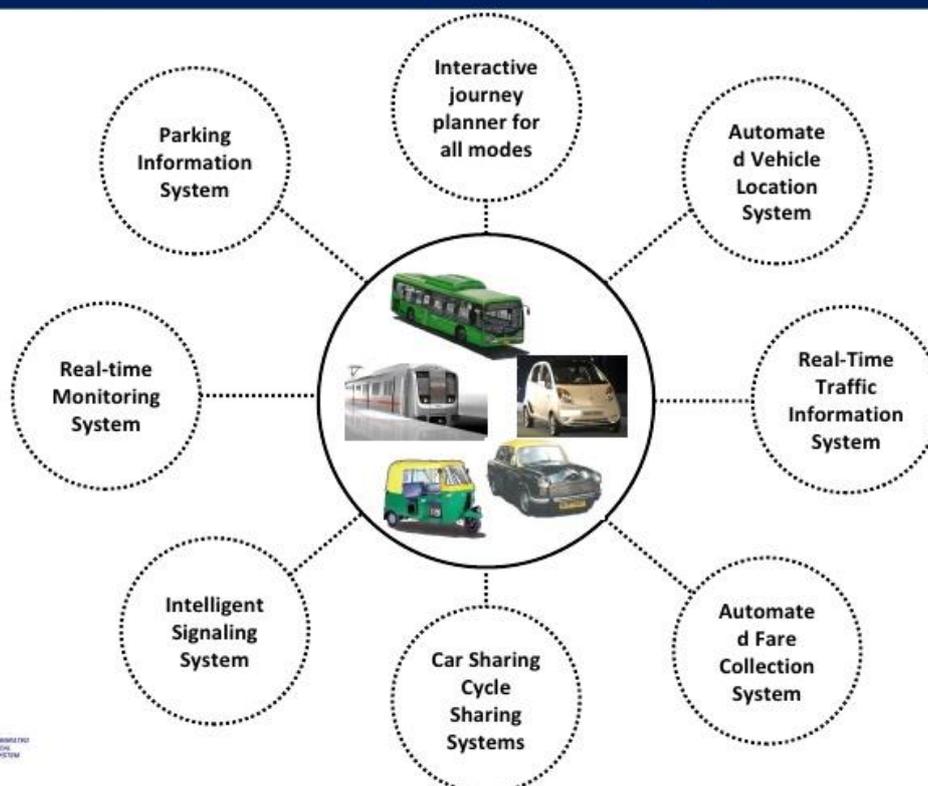
### Introduction:

- India is a country with the **second largest road network in the world**. Out of the total stretch of **5.4 million km of road network**, almost 97,991 km is covered by national highways.
- **Traffic congestion** has increased dramatically in India. **Congestion** and the associated **slow urban mobility** can have a **huge adverse impact** on both the quality of life and the economy.
- It is already a huge challenge for the Indian government to provide world-class roads, due to the sheer magnitude.
- To add to it, India has to spend almost **around ₹20,000 to ₹30,000 crore** on the **maintenance of roads every year**. The reason behind this is the increase in the private vehicle ownership and the overburdening of roads in all major cities of the country.

### Answers need to be identified for the following:

- Are all cities in India congested or just some of them?
- Are Delhi and Mumbai less or more congested than, say, Patna and Varanasi?
- Are mobility and congestion different within cities across the centre and periphery, and at different times of the day?
- How congested are Indian cities compared to cities in the US? What does the future hold?
- **Roads in cities** are multi-purpose public goods, used by various classes of motorized and non-motorized vehicles to travel and park, as well as a wide variety of other users such as street-sellers, children playing and animals.

## What is Smart Transportation System



19

### Understanding the problem of Congestion:

- Our understanding of the **underlying reasons for congestion** is still evolving.
- A popular view is that **urbanization** leads to **ever larger cities** and **increased rates of motorization**. These two features eventually lead to a **complete gridlock and congestion**.

- However, economic growth also brings about **better travel infrastructure**, which facilitates uncongested mobility and increases the pace of urban mobility.
- Indian cities have experienced both these trends. These changes are taking place at a **much faster pace in India** than in the UK and the US.
- **Transportation investments** constitute the largest component of lending of many global development institutions.
- **Data on urban transportation in India** is scarce. In the UK and the US, **knowledge on urban mobility and congestion** stems from surveys of household travel behaviour.
- However, such surveys are prohibitively expensive to carry out in India. We used other methods **to examine urban mobility and congestion**.
- World Bank used a **popular web mapping and transportation service** to generate information for **more than 22 million trips across 154 large Indian cities**.
- The **multi-purpose nature of urban transport** also **impacts urban mobility** in India.

#### Policy challenge that need to be addressed by Area-Specific Approach:

- The unique Indian travel patterns imply that **country-specific and city-level policies are necessary**.
- Standard policy recommendations such as congestion pricing or other types of travel restrictions may do little to improve mobility.
- Instead, **potentially costly travel infrastructure investments** may be the only way to improve uncongested mobility.
- **Better uncongested mobility** generally correlates with the **process of faster economic growth**.
- **Slow urban mobility in India** is primarily due to cities being slow all the time, rather than congested at peak hours. However, congestion is not a nationwide problem. It is concentrated near the **centre of the largest Indian cities**.
- Given their importance to the Indian economy, these areas with the highest levels of congestion, such as the city centres of Kolkata and Bengaluru, should be the **focus of policy efforts to alleviate congestion**.

#### Conclusion:

- ❖ **Investment in urban transport** also plays an important role in influencing **property prices**.
- ❖ A deeper understanding of the interactions between urbanization, urban mobility and congestion will help improve investments in transport and city competitiveness.
- ❖ Recently, the **odd-even scheme** devised by the Delhi CM created a lot of buzz, but did not seem enough, unless it is **supported by other grass root level measures**.
- ❖ **More primary roads and regular grid patterns** are need to be associated with faster urban mobility.
- ❖ There can be an **80% cut in CO2 emissions** if cities embrace **3 revolutions (3R)** in vehicle technology: **automation, electrification, and, most importantly, ride sharing**.

#### Way Forward:

Some of the solutions which can be used are given below.

- Any solution is expected to be successfully implemented, it will definitely **require effort and planning on a huge scale**. This is especially for when we are coming up with plans which can reach the entire country.
  - **Corruption** will have to be curbed, and it will be extremely vital that the raw material is of the highest quality are used for the **longevity and strength of the roads**.
  - **Road pricing system** – people should be charged based on the length of the road and the duration for which they use the road. This will be difficult to implement and will **require huge technological investment** to become possible.
  - **Improvement in public transport** and additional schemes like BRT. The **Bus Rapid Transport** is implemented in some cities like Pune, and it can be very helpful if implemented correctly.
  - People should try and use **carpooling and bike pooling** as much as possible. **Use of bicycles** for smaller distances also improves individual health along with reducing pollution and road congestion.
  - Strict and stringent measures **against traffic violators**. A regulation in the traffic rules and fines levied for breaking them.
  - Metro can play a huge role in **improving the traffic issues** to a great extent. If Nagpur metro becomes successful, it will pave the way for implementation in other cities as well which can be very beneficial.
  - Increase in the **use of CNG and electrical vehicles** and providing relief to those who use the same.

- It's time that city leaders and officers in India recognize the benefits of sustainable mobility and incorporate **well-defined strategies and policies** into their own public agendas. The future of their economies and their citizens depends on it.

## 2. AN ONGOING QUEST FOR EQUALITY

### Context:

- Supreme Court delivered a 4:1 verdict, in **Indian Young Lawyers Association v. State of Kerala**, throwing open the doors of the Sabarimala temple to **women of all ages**.
- With this, the Supreme Court set aside a 27-year-old Kerala High Court judgment that **upheld the prohibition**.
- The High Court had pointed out that the '**Naisthik Brahmachari**' nature of the deity was "**a vital reason for imposing the restriction on young women**".
- However, Supreme Court condemned the prohibition as "**hegemonic patriarchy**". **Patriarchy cannot trump freedom to practice religion**
- The Court said that it amounts to discrimination based on a **biological factor exclusive to gender**. It was violative of **the right to equality and dignity of women**.

**All eyes on SC**

The chronology of the long-standing petition in the Supreme Court against the restriction on women aged between 10 and 50 from entering the Sabarimala temple in Kerala:



**1991:** In *S. Mahendran versus the Secretary, Travancore* case, the Kerala High Court upheld the State's ban on menstruating women from entering the temple. The HC order went unchallenged for 15 years

**2006:** Kannada actor Jayamala claimed she had entered the sanctum sanctorum and touched the idol of the deity in Sabarimala. Her claims led to a furore, leading to a case against the actor

**2006:** A PIL against the Kerala HC order was filed by the India Young Lawyers Association, contending that the ban violated constitutional rights of women

**2008:** On March 7, a Bench of Justices S.B.Sinha and V.S. Sirpurkar referred the case to a three-judge Bench. The case lay in cold storage for 8 years

**2016:** On April 13, a Bench of Justices Dipak Misra, V. Gopala Gowda and Kurian Joseph heard a batch of petitions

**2016:** On April 25, senior advocate K.K. Venugopal, representing the Devaswom, said, "There is a reasonable classification by which certain class of women are excluded." The SC enquired if the defence was implying that menstruation was associated with purity of women

**2018** SC Allows Entry of Women into the Sabari Mala temple in Kerala

However, critical questions for the present Judgement (Article 25(1), 26 put through questions):

- At stake were several thorny questions.
- How deep must the judiciary's inquiry go in deciding whether to **intervene in matters of religion?**
- Should the court disturb **ethical choices** made by a **community of believers?**
- How must the **integrity** behind these practices be judged?
- Are religious exercises susceptible to conventional **constitutional standards of justice and equality?**

### The scope of Article 26:

- The respondents in favour of entry ban justified the ban on entry of women chiefly at two levels.
- First, the temple, they argued, enjoyed **denominational status under Article 26** of the Constitution, which allowed it to determine the manner in which **it managed its religious affairs**.
- Second, prohibiting **women of menstruating age** is supported by the temple's long-honoured custom for the **deity's celibacy concern**.

- Further ban was supported by Rule 3(b) of the Kerala Hindu Places of Public Worship (Authorisation of Entry) Rules, 1965.
- The court repudiated the validity of Rule 3(b), which, it said is at the **core of discrimination.**

#### Dissent opinion of justice Indu Malhotra: Essential practices doctrine:

- Justice Indu Malhotra held that the determination of what constituted an essential practice in a religion should **not be decided by judges on the basis of their personal viewpoints.**
- The issue of what constitutes an **essential religious practice** is for the religious community to decide.
- Essentiality of a religious practice or custom had to be **decided within the religion.** It was a matter of **personal faith.** India is a **land of diverse faiths.**
- **Constitutional morality** in a pluralistic society gave freedom to practice even irrational or illogical customs and usages. She observed that the freedom to practice their beliefs was enshrined in **Article 25 of the Constitution.**
- Harmonisation of fundamental rights with religion included, providing freedom for diverse sects to practise their customs and beliefs.
- The Sabarimala temple was not funded out of the **Consolidated Fund of India.**

#### Judging the rationality of faith to Values of Liberal Constitution:

- The judgment leaves us wondering how far the right to freedom of religion can really extend.
- And to what extent a group's collective liberty can influence an individual's equal right to freedom of religion.
- The court must look beyond the essential practices doctrine and examine claims by applying a principle of "anti-exclusion".
- Where a religious practice causes the exclusion of individuals impairing the dignity or hampers the access to basic goods of individuals, the over-arching values of a liberal Constitution must come to picture.

#### Conclusion:

- ❖ Ultimately, therefore, for Justice Chandrachud, the **Constitution must be seen as a document that seeks to bring about a transformed society.**
- ❖ When a religious practice goes so far as to deny women equal status in society, when notions of purity and pollution are employed to perpetuate discrimination, the **Constitution ought to mandate a shattering of the conventional divides between the private and the public.**

#### Way Forward:

- ✓ The real test, in Justice Chandrachud's opinion, is to assess whether an exclusion **founded on religious belief,** essential or otherwise, encroaches on a **person's basic right to dignity.**
- ✓ The logic behind the ban was that presence of women deviated men from celibacy. This was placing the **burden of men's celibacy on women.** It stigmatises women and stereotypes them.
- ✓ **Individual dignity of women** could not be at the mercy of a mob. Morality was not ephemeral. It transcends biological and physiological barriers.
- ✓ Justice D.Y. Chandrachud said that the aspect to treat women as the children of a lesser God was to **blink at the Constitution.** The prohibition was a form of **untouchability.**
- ✓ In Justice Chandrachud's words that "the **Constitution exists not only to disenable entrenched structures of discrimination and prejudice, but to empower those who traditionally have been deprived of an equal citizenship.**"

## 3. IN PARLIAMENT'S COURT

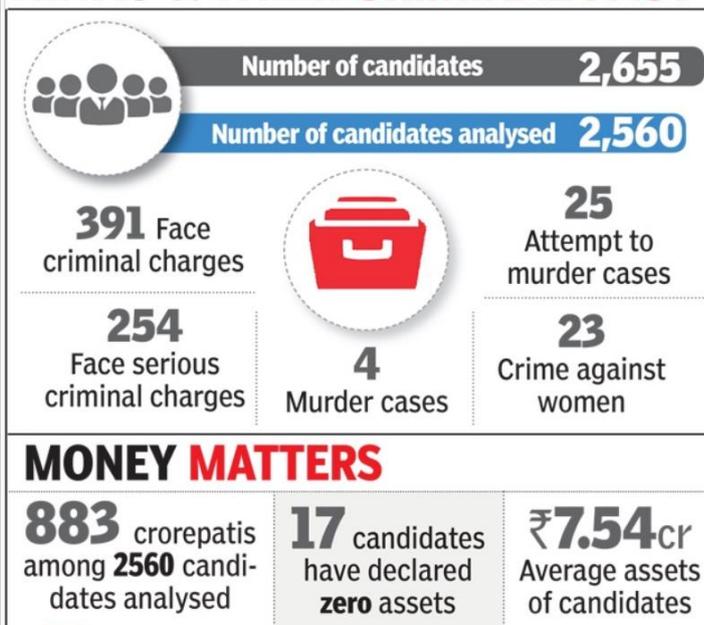
#### Context:

- The Supreme Court has stuck to the letter of the law in putting the onus on **Parliament to frame a law** to prevent people with **criminal charges** against them from **contesting elections** and entering the house, even as it has made it clear that political parties need to do a lot more **to clean up politics.**
- The court mentioned that it was not within its **powers to disqualify politicians facing criminal cases** from contesting election, but recommended that Parliament enact a strong law.
- However, the court made it mandatory for political parties and candidates themselves **to make public disclosure through print and electronic media.**

### Statistics of Criminal Charge Representatives in Politics:

- Data from the *Association for Democratic Reforms (ADR)* indicate 179 out of the 543 elected MPs in the present Lok Sabha have some kind of **criminal cases pending against them**.
- Going by ADR estimates, there are **more than 1500 MPs and MLAs** in parliament and State Assemblies with criminal cases pending against them.
- Some of them of course, may be of **frivolous in nature**, but some of the cases involve allegations of their involvement in serious crimes.
- In case of over 100 MPs, the cases were of a very serious nature, such as **crimes against women and kidnapping**.
- In the previous Lok Sabha of 2009, 163 had criminal cases pending against them, many of them were of a serious nature.
- The profile of the members of the Upper House is no better, 228 members of the Rajya Sabha for whom data was analysed, 20 have cases of serious crimes pending against them.

## NETAS & THEIR CRIMINAL PAST



### Supreme Court Issued Guidelines for disclosure of Charges:

- It has issued **five broad guidelines** related to better labelling and disclosure of such charges.
- These are to make sure that a candidate for political office **declares his or her criminal antecedents**:
  - While filing their nominations, the candidates **must declare**, if there are **pending criminal cases against them** in courts.
  - Political parties are also responsible for putting up **details of criminal cases filed against their candidates on their websites**.
  - Parliament must legislate on the matter to ensure that candidates with criminal antecedents do **not enter public life or become lawmakers**.
  - While filing the nomination forms, candidates must **declare their criminal past and the cases pending against them in bold letters**.
  - Political parties should publicise the background of their candidates via the **electronic media and issue declarations**.
- Making these details public will work in two ways.
- One, of course, is to ensure that people aren't voting for someone without knowing the facts.
- The other is **deterrence**, because these charges will now be well-known, perhaps politicians will be more careful.

### Political Parties raised Concern:

- Political parties say that **barring the candidates** having been charged for heinous crimes is **not practically feasible**.
- They say that this could **lead to wrong cases being filed against the candidates**. This may appear to be valid as data shows that there are **2.7 lakh under-trials**, not convicted and hence innocent, but **locked up in jails**.
- The contention is all the candidates and the legislators should be deemed innocent **until proven guilty**.

### Conclusion:

- ❖ There is serious doubt whether the given judgment by Supreme Court would in any way help in **making our politics cleaner than before**.
- ❖ The chances of Parliament acting fast on this issue are dim. The reasons are simple and obvious. **No political party is free of this problem**.
- ❖ The issue is far **more important and serious** than the attention being paid to it by the policy makers.
- ❖ While the Election Commission has limited powers to legislate on such laws, it is **only Parliament which can legislate to bring about the desired change**.

**Way Forward:**

- ✓ With the SC order, political parties will now find it difficult to make excuses for **choosing tainted candidates**.
- ✓ To be sure, law enforcement and legal systems will have to become **more effective and efficient** to ensure that they weed out politically-motivated charges from actual criminal ones.
- ✓ Thus, despite a **functional democracy** where voters deliberately vote for a '**criminal politician**', who thrives because of fractured governance systems and absence of rule of law, only an electorate that categorically **rejects the criminalisation of politics** can ensure a thorough **cleansing of the system**.
- ✓ This move will not **clean up politics overnight**, but it does **add ammunition to the battle for probity in political office**.

**4. UP IN THE AIR — ON STUBBLE BURNING****Context: Stubble burning in North India**

- The onset of the winter season has come to be associated with **toxic atmospheric pollution in north India**.
- **Crop stubble burning**, which pushes up air pollution, is likely to **rise this winter** after rains delayed harvesting and shrank the time available for management of stubble before the **start of Rabi season sowing**.
- **Open-field burning of agricultural remains** is a major source of air pollution in northern India. The drive against it has also been dampened by the damage caused to crops in Punjab and Haryana due to recent rains.
- The damages are likely to **crimp farmers' earnings** and **effect take-off of machinery** for management of crop residue.
- While **road dust and pollution** from **heavy vehicles** are primarily responsible for the noxious pall that sets on Delhi and other urban centres, the **burning of paddy stubble by farmers** to clear their fields for the next crop is considered to be **responsible for 20% of the smog**.

**Concern of the Farmers: Why stubble burning?**

- Stubble burning is a common practice followed by farmers to prepare the field for sowing of wheat in November as there is **little time left between the harvesting of paddy and sowing of wheat**.
- Burning of Rice straw and wheat residue is not necessary for the farmers because of the **availability of technology** and its **higher economic value** as dry fodder.
- Even though farmers are aware that the burning of straw is harmful to health, they do **not have alternatives for utilising them effectively**.
- The farmers are **ill-equipped to deal with waste** because they cannot afford the **new technology** that is available to handle the waste material.
- Experts say that with **less income due to crop damage**, farmers are likely to be inclined to light up their fields to cut costs and not spend on scientific ways of stubble management.
- It costs **Rs 1,500-3,000 per acre for stubble management**, depending on the equipment and method.

**Punjab to post officers to curb stubble burning:**

- Paddy is grown on **65 lakh acres in Punjab**. After harvesting, **about 20 million tonnes of straw is left on the fields**.
- It is estimated that 15 million tonnes of straw is burnt by farmers for to clear the fields and make them ready for the next crop.
- With **paddy ready for harvest**, the Punjab government has directed the procurement agencies to ensure prompt lifting of the crop from markets.
- Also, to curb the **menace of stubble burning**, the State has decided to appoint nodal officers in 8,000 paddy growing villages.
- Over the past week, at least 61 cases of stubble burning have been detected in **Haryana, and in Punjab**, confirmed members of the state pollution control boards of the two states.

**1 Why straw burning is such a big issue**

- Heat from burning straw penetrates into soil up to 1 cm
- Repeated burning in the field permanently diminishes bacterial population by 50%
- Agriculture departments of Punjab and Haryana offer subsidies on purchase of agricultural equipment that help manage crop stubble
- However, farmers are wary of availing subsidy due to the cumbersome formalities
- Many want to move away from paddy because of the problem with stubble as well as dependence on water in areas that are nearly parched
- Wheat and paddy harvesters together leave a stubble of about 10 inches, which is difficult to plough back

- They both said that **satellite monitoring of burning stubble**, a post-monsoon phenomenon in which farmers set fire to their paddy fields in order to get them ready for wheat sowing in November.

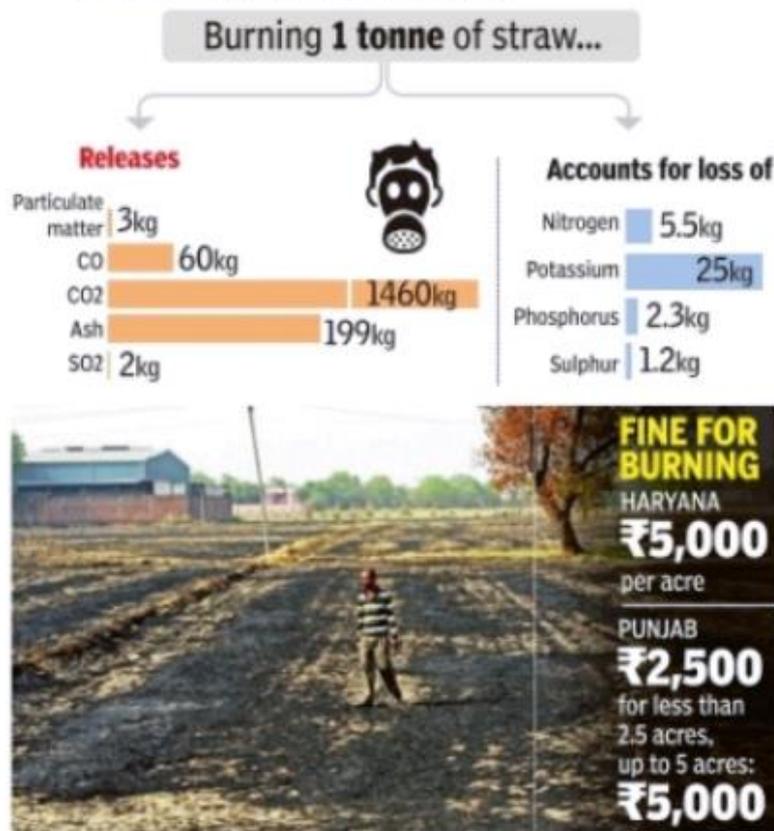
#### Alternative solutions that can avoid Stubble Burning:

- The **available paddy straw** can be effectively used for power generation, which will go a long way towards overcoming the problem of disposal of crop residues and power deficit in the region.
- Suitable machinery for **collection, chopping** and in situ incorporation of straw is required.
- There is great potential for making **investments in paddy straw-based power plants** which can help avoid stubble burning to a large extent and also create **employment opportunities**.
- **Incorporation of crop residues in the soil** can improve soil moisture and help activate the growth of soil microorganisms for better plant growth.
- Convert the removed residues into **enriched organic manure through composting**.
- New opportunities for industrial use such as **extraction of yeast protein** can be explored **through scientific research**.
- The **2014 national policy** envisages adoption of technical measures, including diversified uses of crop residue, capacity building and training along with **formulation of suitable legislation**, to deal with the issue of disposing of stubble.
- Unless Financial assistance is to be provided by the Centre for boosting farm mechanisation, it is difficult to completely stop stubble burning.
- States needs to make **alternative arrangements** for consumption of paddy straw into the soil as per the directions of the NGT.

#### Conclusion:

- ❖ **Crop residue fires** in Punjab and Haryana are enhancing **concentrations of toxic gases** like benzene and toluene, according to research from Indian Institute of Science Education and Research (IISER).
- ❖ The cancer risk would be even **higher for farmers and villagers closest to the fields**, the study said, adding that mitigating crop fires could reduce these risks.
- ❖ **Blaming only the farmers** may not solve the problem of air pollution and there is a need to find sustainable technological solutions
- ❖ It is important to **diagnose and address the fundamental problems** that force the farmers to burn the paddy straw on the field and not utilise it for any productive purpose.

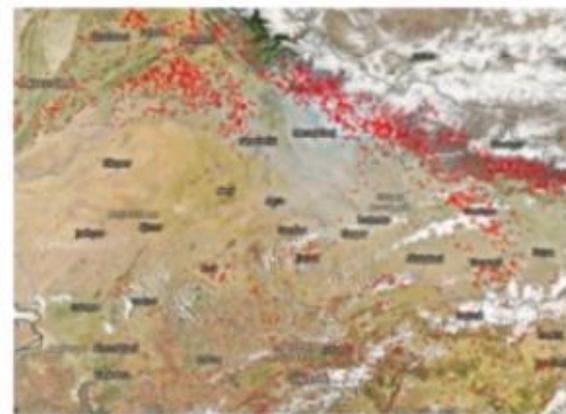
**2** There are two crop stubble burning seasons in north India – **October** after the paddy harvest and **April-end to May** following wheat harvest



**April 19, 2017:** This Nasa image shows how crop burning (red dots) in north India is sporadic so far



**APRIL 30, 2016:** However, as this image from last year shows, things could worsen by end of the month



**Way Forward:**

- ✓ There is also a **need to develop rice varieties** that are both rich in grain yield and high in straw quality. Use of such **dual-purpose rice varieties** will help to maintain ***food security, farm income and improve environmental sustainability***.
- ✓ There needs to be a **proactive engagement** to both persuade and reassure farmers.
- ✓ The **greater availability of machines** and the **zero-tolerance policy** need to be seen as works in progress to derive lessons on how to **refine the crop-clearing** process in an **ecologically sound manner**.
- ✓ Promoting indigenous research and science, incentivising pulses production, and rationalising pricing more broadly. **Converting crises into opportunities is the hallmark of good public policy**

## 5. THE ROAD TO E-VEHICLE ADOPTION IN INDIA

**Context: Rupee depreciation affects Electric Vehicle Industry:**

- The **rupee's dramatic depreciation** in recent months has had an unexpected victim. The **Indian electric vehicle (EV) industry** has been hit hard.
- The reason for this is telling: **local production of inputs** for EVs is at just about **35% of total input production**.
- Companies that are in the midst of processing orders for electric cars and buses will now see their production severely affected in terms of production costs. This neatly sums up some of the **challenges facing India's e-vehicle push**.
- Conventional Vehicular pollution contributes around **35 per cent of the total PM 2.5 emissions**. Of the total vehicular pollution, 40 per cent to 45 per cent comes from two-wheelers and another 30 per cent to-35 per cent from four wheelers.
- The need to **address urban pollution** is urgent. Focusing on reducing contribution of vehicular pollution to overall urban pollution will help address the urgency.

**Reasons for Low Performance of Electric Vehicle Industry:**

- The government's ambitions notwithstanding, the **Indian EV market** currently has one of the **lowest penetration rates** in the world. There are multiple layers to this.

**1. Price Volatility:**

- The first has to do with **policy volatility**. E-mobility is a nascent industry in India and most of the developing countries. Capital costs are high and the payoff is uncertain.
- The **unrealistic quasi-policy statement** that ***all new vehicles should be e-vehicles by 2030 is a prime example***.
- Thankfully, that has been toned down to **15% of all vehicle sales** in the next five years.
- And **inconsistencies remain**. For instance, while electric vehicles are taxed at 12% under the goods and services tax (GST), batteries were taxed at 28% until recently. This has now been lowered to 18% but the discrepancy still exists.

**2. Lack of policy certainty: Cannot frame in Isolation:**

- Second, this lack of policy certainty spills over into perhaps the **single most important element of enabling e-vehicle usage**: charging infrastructure.
- If a switch to e-vehicles is to have any **significant effect on pollution**, the sector cannot be seen in isolation.
- An EV, is only as clean as the electricity source it uses. In India, **thermal sources** account for **about 65% of capacity**.

**3. Local and Private Investment results in Low Cost production Technology:**

- Third, **localization** is another tricky area, as the strife caused by the rupee's depreciation has shown.
- India does not have any **known reserves of lithium and cobalt**, which makes it entirely dependent on **imports of lithium-ion batteries** from Japan and China.
- It is necessary to acquire **mines in Latin America and Australia**. But that will not be enough. **Private investment** in battery manufacturing plants and developing ***low cost production technology is a must***.
- **Stabilizing the policy environment** when it comes to taxes, non-fiscal incentives and the infrastructure needed to tackle.

### Government push for Electric Vehicles in past:

- “Faster Adoption and Manufacturing of Electric and Hybrid Vehicles in India”, popularly known as **FAME India** scheme for improving and increasing electric mobility in India.
- Government is providing Rs 437 crore subsidy to 11 cities under FAME India, for launching electric buses, taxis and three-wheelers.
- Effort is to **significant boost to electric mobility** with the aim to roll out a number of electric buses, electric three-wheelers and electric shared cabs for **multi-modal public transport**.
- It is envisaged that **early market creation** through demand incentive, in-house technology development and domestic production will help industry reach a self-sufficient economy of scale in the **long run by around the year 2020**.

## THREE-PRONGED PLAN TO BOOST SALE OF ELECTRIC VEHICLES

### 1 PUSHING DEMAND:

- No permit for electric vehicles (EVs) in public transport, taxis & autorickshaws
- Mandate induction of certain percentage of EVs for aggregators & operators
- Allow leasing of EVs for transport operators
- Allow higher depreciation on EVs
- Lending for EVs with lower margin money



### 2 INCREASING SUPPLY

- Tighten fuel-efficiency & emission norms to make auto-makers produce more EVs
- Incentive & weighted deductions for investment in EVs
- Graded duty regime to promote Indian players

### 3 CREATING ECOSYSTEM

- Preferential treatment for EVs on roads
- Greater spread of charging infrastructure
- Provision of EV charging in building norms
- Allow CSR for setting up of charging stations

### NITI Aayog's mobility plan: NITI Aayog recommendations in its report-

- The government must **subsidize the EV industry** while penalizing conventional cars.
- Taxes and interest rates for **loans on EVs** should be lowered.
- The sale and registration of **conventional cars** should be lowered
- Using taxes from diesel and petrol car sales to **create electric charging stations**.
- It also suggests setting up “a **manufacturer consortium** for batteries, common components, and platforms to **develop battery cell technologies** and packs and to procure common components for Indian original equipment manufacturers.”

### Conclusion:

- ❖ Moving towards clean energy while still being technology-agnostic.
- ❖ Environment-friendly EVs will **reduce air pollution** and thus contribute to the **fight against climate change**.
- ❖ As per **NITI Aayog's report** EVs will help in cutting down as much as **1 Gigatonne (GT) of carbon emissions** by 2030.
- ❖ The government should have a role. Instead of trying to pick winners, the government should **focus on building an enabling business environment** that supports research and innovation.
- ❖ Both Central and State Governments should **support clean energy research** in general. That way, the government does its part in steering the policy ship

### Way Forward:

- ✓ **Five projects** have been accurately identified therein – lithium battery, charging infrastructure, driving cycle and traffic pattern, motors and drives, and lightweighting of EVs.
- ✓ **Targeting of direct sops and incentives for EV:** From the supply side, such interventions include speed-tracking of environmental and labour clearances, tax rebates and exemptions.
- ✓ **Demand-side interventions** include direct consumer subsidies, waiver of road tax and registration fees, GST (goods and services tax) refunds, and free parking spaces.
- ✓ **Renewed commitment on the part of government:** To provide and promote greater public infrastructure for EVs, including public charging stations, dedicated electric supply lines for such stations, and battery swap stations.
- ✓ **Boost for R&D innovation:** In February 2016, a Technology Platform for Electric Mobility was initiated jointly by the departments of heavy industries, and science and technology.
- ✓ These are clearly the **most critical areas for research**, and directing funding will be instrumental in meeting the NEMMP target of **six million EVs/hybrids by 2020**.

- ✓ In addition, a **robust system of incentives** for private entities spearheading EV innovation, including tax credits for **setting up research labs**, is also crucial.

## 6. THE NEW DEALS — ON U.S.-MEXICO-CANADA PACT

### Context: USMCA Replacing NAFTA

- After more than a year of intense negotiation, the **U.S., Canada and Mexico** managed to arrive at a **revised trade agreement** to replace the quarter-century-old North American Free Trade Agreement (**NAFTA**).
- A new free trade pact **USMCA** replaces the 25-year-old North American Free Trade Agreement (NAFTA), which Donald Trump threatened to cancel previously.
- The deal does not do anything new to promote the cause of free trade among the North American nations but it achieves the **objective of averting any significant damage to the international trade system**.

### USMCA: United States-Mexico-Canada Agreement:

- Canada and U.S reached a deal to a new free trade pact. This is known as **USMCA**, that means, **United States-Mexico-Canada Agreement**. It gives U.S. greater access to the **dairy markets of Canada** and allows **extra imports of Canadian cars**.
- Now the U.S.A says, USMCA will result in **freer markets, fairer trade and robust economic growth**.
- Under the new deal, Canada will have to **allow American dairy producers** to compete against locals, a move that will favour Canadian consumers.
- The U.S. agreed to retain **Chapter 19 and Chapter 20 dispute-settlement mechanisms** as a compromise, which Canada quite often used to resolve the trade conflicts and to defend against **U.S anti-dumping and countervailing duties**.
- USMCA includes **stronger protections for workers, tough new environmental rules**.
- It also provides **“ground breaking” intellectual property protections**. It adds provisions to prevent “manipulation” of the trade rules, including covering currency values, and controls over outside countries trying to take advantage of the duty-free market.
- In addition, **40% of the car parts** of vehicles produced in the three Countries must be **made in North America**. The minimum wages should be **\$16 an hour**.
- This is the best anyone could possibly hope for in the midst of the global trade war that began this year.

### UNITED STATES-MEXICO-CANADA AGREEMENT (USMCA): WHAT'S NEW?



### What's new in the deal, and how big of an impact will it have?

USMCA headlining items from the new agreement:

- **Country of origin rules**
  - Under the new deal, cars or trucks must have 75 percent of their components manufactured in **Mexico, the US, or Canada** to qualify for zero tariffs.
  - The goal is to boost auto parts manufacturing in North America by forcing car companies to use parts made here versus cheaper parts from Asia.
- **Labour provisions**
  - The most striking difference from NAFTA involves protections for workers in all three countries.
  - The new agreement calls for **40 to 45 percent of automobile content** to be made by workers who earn **at least \$16 an hour by 2023**. This provision specifically targets Mexico and is meant to bring wages there up to US and Canadian standards.
  - In addition, Mexico has agreed to pass laws giving workers the right to real union representation, to extend labor protections to migrants workers (who are often from Central America), and to protect women from discrimination.
  - These are much-needed reforms, and they address a lot of concerns that US labor unions have long had about NAFTA.
- **US farmers get more access to the Canadian dairy market**
  - Canada uses what's called a **supply management system for dairy** (and eggs and poultry), which closely regulates how much of each product can be produced and places strict tariffs and quotas on those items when they're shipped into the country.
  - The US got Canada **to open up its dairy market**.
- **Intellectual property protections and digital trade provisions**
  - This is a win for **the United States**. The new agreement extends the terms of **copyright from 50 years beyond** the life of the author to **70 years beyond** the life of the author.
  - The USMCA aims to fix that by adding new provisions to deal with the digital economy — that is things like e-commerce and data.
  - These new digital provisions include things like no duties on products purchased electronically, such as music or e-books, and protections for internet companies so they're not liable for content their users produce.
- **Canada preserves the special trade dispute mechanism and Investors can't sue governments**
  - In the original NAFTA, a provision known as **Chapter 11** gave investors the ability to sue governments over **changes to policies that they claim would harm future profits**.
  - It's been eliminated for the US and Canada and has been restricted in Mexico except for a few sectors, including energy.

### Trump gets a win on his trade strategy — but what does it all mean?

- Some changes are substantial, such as the provisions about automobiles, but the **core of NAFTA remains intact**.
- They have fixed some of the **problems with NAFTA**, they have brought it up to date, they have **expanded the scope of the agreement**, but they have in no way fixed what seemed to be the **fundamental problems of NAFTA** by President Trump.
- Because, USMCA has introduced **digital trade protections** and other updates, but it perhaps **didn't go far enough**.
- Many of the more forward-looking agreements, such as digital trade protections, were **borrowed from the TPP**.
- But, the question is **how long this strategy can last**, and whether it will work on harder trade deals, for instance with Japan and the European Union.

### USMCA impact on India:

- The **biggest impact**, according to the US trade officials, is going to be in the auto section that stipulates conditions such as manufacturing of greater portion of vehicles in the three countries and with **high-wage labour in the US and Canada**.

- Announcing the USMCA, Mr Trump signalled he would now extend his **'all or nothing' approach** to resetting trade ties with the **European Union, China, Japan and India**.
- Terming **India "the tariff king"**, he said it had sought to start negotiations immediately.
- **India's trade negotiators** will now have their **task cut out** if they want to protect exporters' access to one of the country's largest markets for **its services and merchandise**.

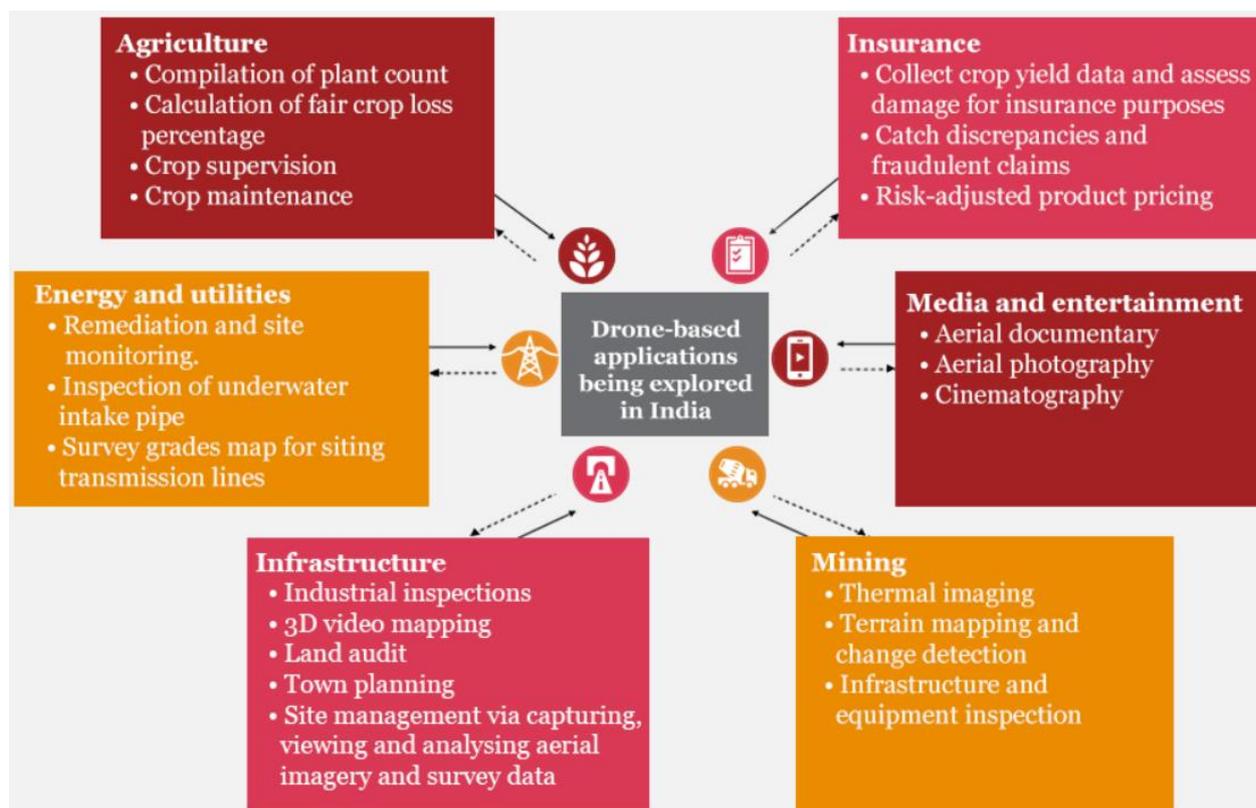
## 7. A FLIGHT PATH WITH OBSTACLES

### Introduction:

- India is one of the fastest-growing markets for **unmanned aerial vehicles (UAVs)**, and one of the **top UAV importers for military purposes** worldwide, says a report.
- According to global market intelligence and advisory firm BIS Research, by 2021, **the Indian UAV market** will reach USD 885.7 million, while the global market size will touch USD 21.47 billion.

### Recent Policy of commercial Drones will be a game-changer:

- Businesses across industries ranging from real estate developers to power producers in India will be able to **use commercial drones for monitoring, and shipping and delivery operations** from 1 December as the government unveiled a **landmark policy**.
- The step could help substantially **lower the cost of operations** at various industries.
- These include aerial photography of real estate projects by companies, monitoring equipment at wind and solar power plants, precision delivery of fertilizers, disaster relief, mineral exploration and shipping mail.



### However, there are Policy contradictions:

- While the rest of the world has been soaring ahead in making the futuristic promise of **unmanned flying vehicles** a more immediate reality, India has largely been dragging its feet.
- Up until the end of August, flying a drone was mostly illegal here.
- With the publication of the **drone regulations**, the Ministry of Civil Aviation has attempted to give some structure to the **development of drone infrastructure in India**.
- While announcing the publication of these guidelines, Civil Aviation Ministry made two points, the contradictions of which also highlight **India's lack of clarity on what it should do with drones**.
  - For one, he estimated the potential of the "drone market" in India to be **\$1 trillion**.
  - And in the next breath is **India's security environment** necessitated extra precautions.

- Drones are barred from being flown near the airports, international border, coastline, Parliament, Secretariat complex in State capitals, military installations etc.

#### Untapped potential:

- The **security and privacy risks** of allowing drones to fly in an unregulated manner are high. However, if India is to reach even the fraction of the **\$1 trillion potential**, it needs to figure out a more balanced manner of regulation.
- The current rules are a start, but only in the sense that they free all drones from their previous illegality.
- Missing out on working on these applications early enough will likely have serious repercussions to India's future competitiveness in the field.
- Manufacturers of drones as well as technologists and researchers making applications using drones have to test fly these frequently, often several times a day.

#### Switzerland Example:

- In Nyon, Switzerland, agriculture scientists fly a drone to **study nitrogen level in leaves, not for a farm as a whole, but for each individual plant.**
- The drone takes a large number of images, which when fed into a computer model with data on soil condition, weather, time of the year and other information helps analyse which plants are deficient in nitrogen, enabling farmers to add corrective fertilizer, only where necessary.
- **Sensefly**, a Swiss drone manufacturer, has customers around the World, whose use of drones has resulted in **higher yields** and significantly **lower usage of fertilizers and herbicides.**

#### Way Forward:

- ✓ **China's drone economy** of manufacturing and development will be worth **\$9 billion in 2020**, while the U.S's commercial drone market is expected to be **\$2.05 billion by 2023 (Global Market Insights).**
- ✓ In India, so many Government authorities are involved in **allowing permission**. It is inevitable that operators could be slapped easily with real and perceived violations.
- ✓ The regulation provides for a list of identified areas for testing and demonstration. Flying drones in those areas comes with **less paperwork**. But, however, the locations are far from technology and development hubs.
- ✓ Filing a series of applications in multiple copies and waiting for various government departments to respond is not the best way to get started.
- ✓ For India to compete against these giants, it already has a lot of catching up to do.
- ✓ The **real impact of drones** will be in the many applications they will be put to. Agriculture is just one such. They are likely to be the disaster prevention systems, rescue operation leaders, and even public transport providers in the not too distant future.

## 8. ROHINGYA ISSUE: THE ROAD TO DEPORTATION

#### Introduction: Rohingyas:

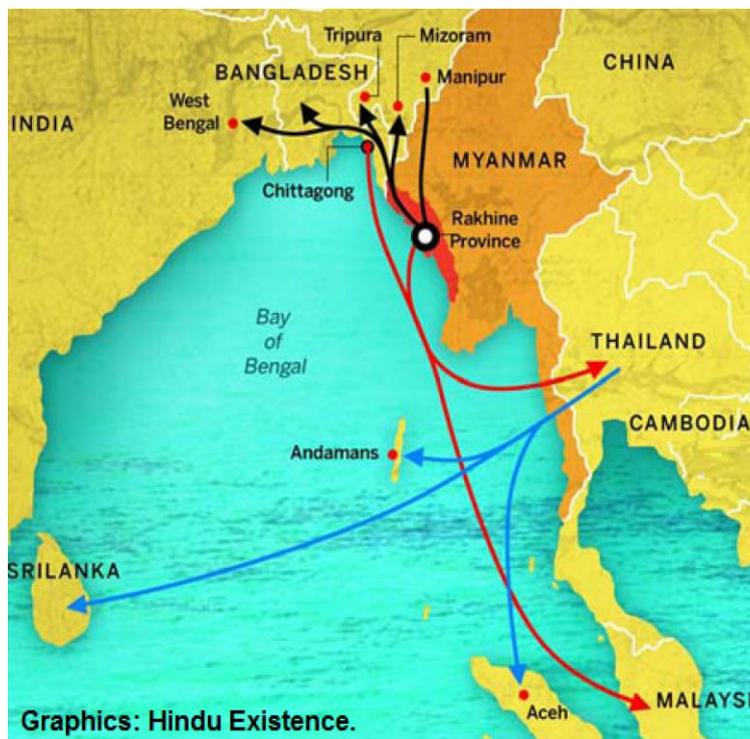
- They are an **Ethnic group**, mostly Muslims. They were **not granted full citizenship** by Myanmar. They were classified as **"resident foreigners or associate citizens"**.
- They speak a dialect of Bengali and not Burmese. Ethnically they are much closer to Indo-Aryan people of India and Bangladesh than to the Sino-Tibetans of the Country.
- They left Myanmar in large numbers, first in 2012, during the first wave of organised attacks against them by the army. Last year, lakhs of them took shelter in Cox's Bazar area of Bangladesh.
- Since 2012, 5 lakh Rohingyas have taken shelter in Saudi Arabia. There are around **40,000 Rohingyas in India**, of which **around 5,700 are in Jammu.** (more vulnerable for getting recruited by terrorist organisations".)
- Now the seven men being sent back had been held in prison since 2012 for illegal entry. Indian Government has described **illegal Rohingya immigrants** as posing a **national security threat**, and ordered state governments last year to identify and deport them.

#### Concerns with regard to Illegal Migrants:

An **illegal immigrant** can be:

- A foreign national, who enters India on valid travel documents and **stays beyond their validity** or a foreign national, who enters **without valid travel documents.**

- Illegal migrants “**infringe on the rights of Indian citizens**” and are “**more vulnerable for getting recruited by terrorist organisations**”.
- Section 3(2)(c) of The Foreigners Act, 1946, gives the Central Government the **right to deport a foreign national**.
- **India is not a signatory to the 1951 United Nations Convention and 1967 Protocol Relating to the Status of Refugees**, and it does not currently have a national law on refugees.
- In 2011, the Union government circulated to all states and Union Territories a **Standard Operating Procedure** to deal with foreign nationals who claimed to be refugees.
- However, the power to identify and deport foreign nationals, who are in India illegally has been delegated to State Governments / Union Territories and the Home Ministry’s Bureau of Immigration.



#### OFFICIAL FIGURES OF ROHINGYAS IN INDIA

STATE	Rohingya population (in Families)
J&K	6684
AP	1755
Haryana	677
Delhi	760
UP	111
WB—including Siliguri	351
Punjab	50
Rajasthan	162
Maharashtra	12
Andaman and Nicobar	03
<b>TOTAL</b>	<b>10,565</b>

#### Customary International Law:

- The **International Court of Justice** Statute defines customary international law in **Article 38(1)(b)** as “evidence of a general practice accepted as law.” This is generally determined through **two factors**: the general practice of states and what states have accepted as law.
- Customary International Law, has been crystallised as a **result of the practice of the States**.
- Some scholars argue that, the principle is so well enshrined that it **constitutes a peremptory norm** from which no derogation what so ever is permitted.
- India’s tough stand on **deporting Rohingyas** back to Rakhine State in the midst of the ongoing violence has **evoked criticism** from national and international human rights activists.

#### Contention of United Nations High Commissioner for Refugees:

- It appealed to India **to stay the repatriation**. The Indian Government says, the men who belonged to Rakhine Province requested the Myanmar Government in 2016 to issue them documents to return to their Country.
- But, **UNHCR** says a lot has changed since then and the important aspect is ethnic cleansing took place in 2017, which saw nearly a million flee to camps in Bangladesh.
- The seven men, who had been imprisoned in Assam since 2012, were denied the opportunity to make an informed decision in the current conditions.
- UNHCR strongly feels the current conditions in Rakhine State are **not conducive for safe, dignified and sustainable return for the Rohingya**.

#### Has India sent back any other foreigners as well ?

- **Bureau of Immigration** data show approximately 330 Pakistanis and approximately 1,770 Bangladeshi nationals have been repatriated during the last three years.

- On February 24, 2016, the government told Parliament that in 2014, West Bengal had arrested 3,724 foreign nationals under various sections of **The Foreigners Act, 1946**, and for violating **Immigration Control Rules and Regulations**, followed by Tripura (1,713), Tamil Nadu (639), and Maharashtra (228).

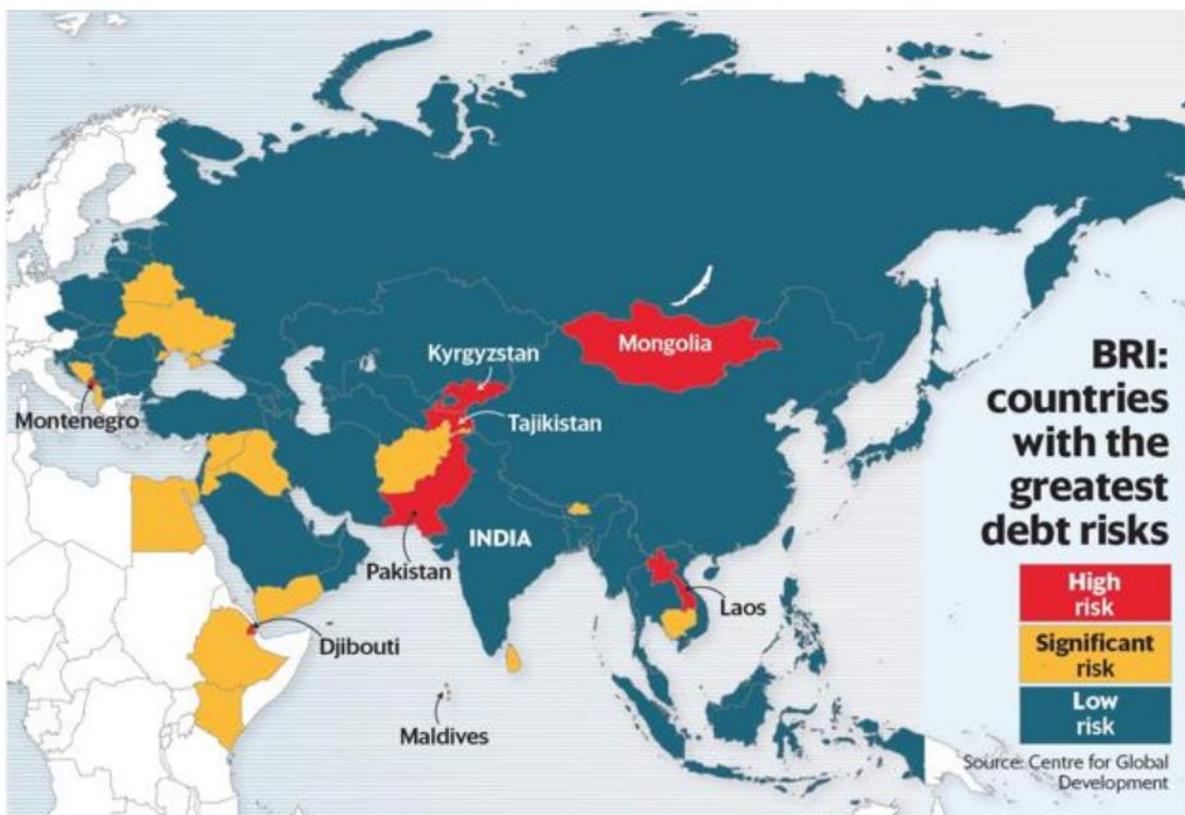
#### Way Forward: Need for enhanced Indian diplomatic efforts:

- ✓ India has a stake in the security conditions in **upper western Myanmar** adjoining the **Naga self-administered zone** where the Khaplang faction of the National Socialist Council of Nagalim operates.
- ✓ The success of India's diplomacy will lie in the extent to which it can induce Naypyitaw to take a long view in the interests of **its own political stability, internal security and social harmony.**
- ✓ If such a process can be initiated with the help of Indian diplomacy, the Rohingyas would be able to come out of the genocidal situation in which they find themselves at present.
- ✓ A modicum of understanding prevails between New Delhi and Naypyitaw with a view to ensuring that **the internal security environment in India's north-eastern states** is not jeopardised by the activities of the Khaplang group in Myanmar.
- ✓ **ASEAN, India and Bangladesh** need to discuss the Rohingya crisis together to work for an **optimum solution to the problem.** The first step would be to convince the present government in Myanmar about the benefits of **well-coordinated cooperation** between ASEAN members, India and Bangladesh to tackle the issue.

## 9. THE BACKLASH AGAINST CHINA IS GROWING

### Introduction:

- **China's Belt and Road Initiative (BRI)** which seeks to invest **about \$8 trillion in infrastructure projects across Asia, Europe and Africa**, has come under intense scrutiny, not least due to suspicions over China's intent behind the ambitious project.
- A study by the **Centre for Global Development**, a Washington-based think tank, analyses one **important consequence of BRI: debt.**
- While the study finds that it is unlikely that the BRI will be plagued with wide-scale debt sustainability problems, it is likely to **raise the risk of a sovereign debt default among relatively small and poor countries.**



China BRI will potentially span 68 countries and could have implications for each of these countries' public debt.

**Context:**

- On a recent official visit to China, Malaysian Prime Minister Mahathir Mohamad criticized his host country's (China's) **use of major infrastructure projects** and **difficult-to-repay loans** to assert its influence over smaller countries.
- While Mahathir's warnings in Beijing against "**a new version of colonialism**" stood out for their boldness, they reflect a broader pushback against **China's mercantilist trade, investment, and lending practices**.
- Mahathir, who previously cleared the way for Chinese investment in Malaysia, ended his trip to Beijing by **cancelling Chinese projects** worth almost \$23 billion.

**How China is inflating their goods Value and making the countries into "Debt Trap":**

- Since 2013, under the umbrella of its "**Belt and Road Initiative**", China has been funding and implementing **large infrastructure projects** in countries around the world, in order to help align their interests with **its own, gain a political foothold in strategic locations, and export its industrial surpluses**.
- By keeping bidding on BRI projects **closed and opaque**, China often massively **inflates their value**, leaving countries **struggling to repay their debts**.

**Consequences of that Debt Trap:**

Once countries become ensnared in **China's debt traps**, they can end up being forced into even **worse deals to compensate** their creditor for **lack of repayment**.

- For Instance, Most notably, last December, Sri Lanka was compelled to transfer the **Chinese-built strategic port of Hambantota to China on a 99-year**, colonial-style lease, because it could no longer afford its debt payments.
- Sri Lanka's experience was a wake-up call for other countries with outsize debts to China. Fearing that they, too, could **lose strategic assets**, they are now attempting to **scrap, scale back, or renegotiate their deals**.
- Countries as diverse as **Bangladesh, Hungary, and Tanzania** have also cancelled or scaled back BRI projects.
- **Myanmar**, hoping to secure needed infrastructure without becoming caught up in a Chinese debt trap, has used the threat of cancellation to **negotiate a reduction** in the cost of its **planned Kyaukpyu port** from \$7.3 billion to \$1.3 billion.
- Even China's closest partners are now wary of the BRI. In **Pakistan**, which has long worked with China to contain India and is the **largest recipient of BRI financing**, the new government has sought to review or renegotiate projects in response to a **worsening debt crisis**.
- In **Cambodia**, fears of effectively becoming a Chinese colony are on the rise.
- At the recent annual **Pacific Islands Forum meeting**, the President of Nauru, the World's smallest republic, with just 11,000 inhabitants, condemned **China's arrogant presence in the South China Sea**.

**Asian Countries Like Japan, South Korea, Taiwan, Australia strategies to contain China:**

- They are unveiling the strategies to **diversify their economic inter-dependence** away from Mainland China and **towards South-east Asia and India**. The concern in these countries is, China is using its **economic muscle for political purposes**.
- An example is, suspending rare Earth metal exports to Japan in 2010 or punishing a major South Korean Corporation for the decision of South Korea to install a missile defence system in 2017.
- Japan's **Free and Open Indo-Pacific strategy** is meant to diversify investments to more promising markets in **Southeast Asia, India and Africa**. **South Korea** unveiled a **New Southern Policy** with focus on South-east Asia, along with making India Korea's key partner for cooperation.
- **Taiwan** announced a **New Southbound Policy** with significant investments in India by Taiwanese electronics manufacturers.
- **Australian Govt.** commissioned **ambitious India Economic Strategy** with the goal of making India, its **third-largest investment destination** and **export destination by 2035**.
- These countries are aligning in Asia for the **acceleration of India's economic growth** and now it is up to **India to grab this opportunity**.

**Way Forward:**

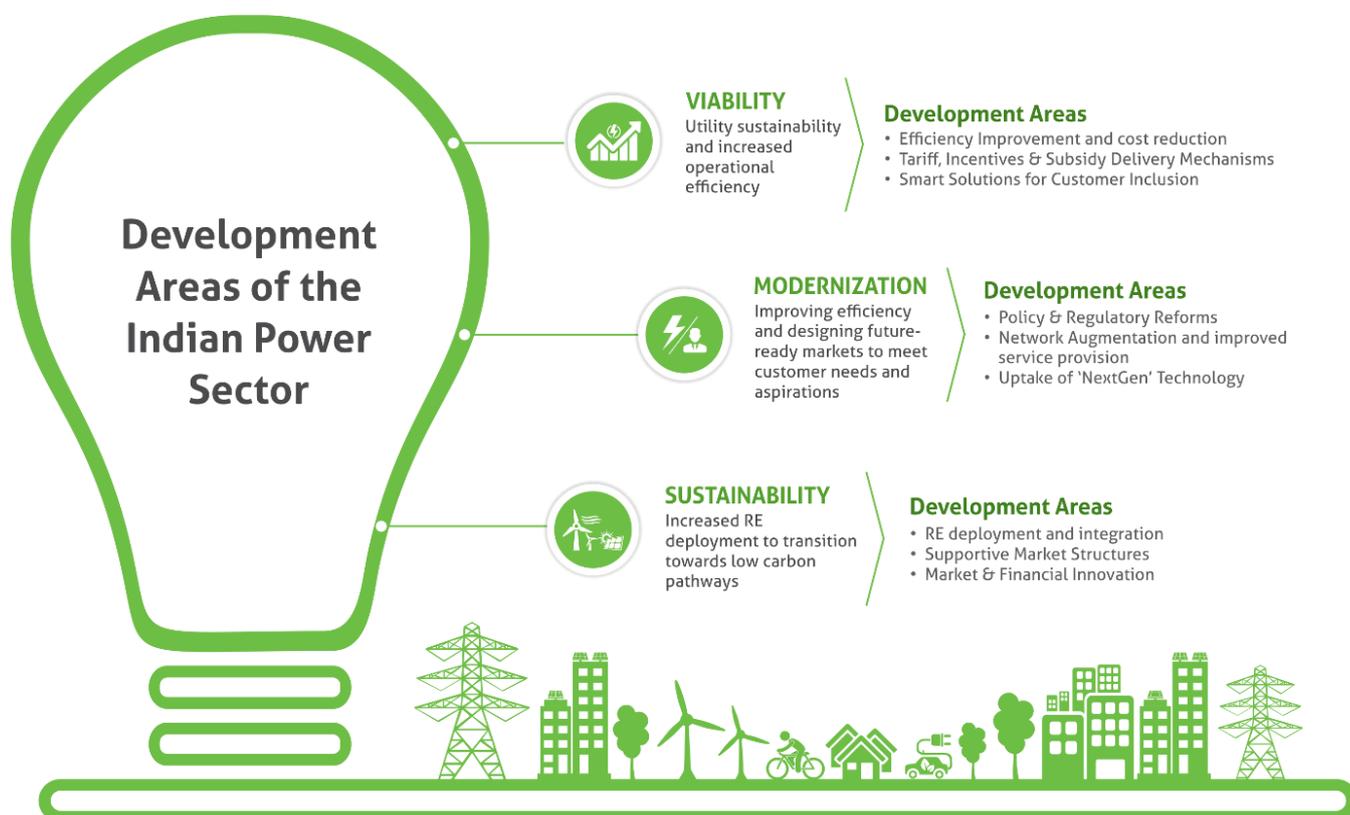
- ✓ Unlike most of the world's other major creditors, China is not bound to a set of rules on how it **addresses debtor repayment problems**.
- ✓ The think-tank **Centre for Global Development** advocates applying globally-accepted **creditor disciplines and standards** to the Belt and Road Initiative.

- ✓ To do this, they recommend the **World Bank and other multilateral banks** increase their participation in the Belt and Road Initiative and work with the Chinese government to set **the lending standards for the BRI projects**.
- ✓ Another recommendation is **to establish a new creditor's group** which would maintain the core principles of International Standards and Creditor Disciplines.
- ✓ To mitigate lending risks, China is also recommended to provide **technical and legal support to developing countries**.
- ✓ Finally, the think tank proposes that China should offer **debt swap arrangements in support of environmental goals** where borrowing country debt is forgiven in exchange for a commitment to an **environmental objective, for instance, forest preservation**.

## 10. POWER POLITICS AT PLAY

### Context:

- The Central government has proposed a set of **changes to the Electricity Act 2003**. In the revised proposal, the Ministry of Power has included ample provisions for **renewable energy generation and distribution**.
- The amendments seek to **enable a market transformation in electricity**. The link between political power and electrical power is widely known; promises around **electricity access, price and quality** are important political currency.



### The Electricity (Amendment) Act 2018:

- **Direct Benefit Transfer of Subsidy:** Breaking the cycle of subsidy and losses incurred by the DISCOMS, the Act has **introduced DBT in electricity** as well.
  - **The Act says:** If the State Government or Central Government desires the grant of any subsidy to any consumer or class of consumers, such **subsidy shall be directly transferred to the beneficiary by direct benefit transfer into the bank account of the beneficiary.** The same will apply if subsidy is given through any government scheme as well.
- **Separation of content & carriage:** The long-pending demand to separate the **infrastructure builder** for power distribution to consumers and **the licensee to supply** has been introduced in the Act.
  - This would entail **more than one electricity supplier in an area** and consumer will have options to choose their preferred electricity supplier.
  - Allied to it is introduction of time of the day tariff power rate as per the **energy source, season, time and demand**.

- **Honourable mention to renewable energy:** Since 2013, the renewable capacity in the country has grown **more than 80 per cent** currently standing at **70,000 MW**.
  - The draft Act has introduced **Renewable Purchase Obligation** and also defined penalty for defaulting on it.
  - The Act also aims to introduce **one member** from the ministry of new & renewable energy in the **Central Electricity Regulatory Commission**, in place of a representative of department of consumer affairs.
- **Getting smarter:** The Electricity Act for the first time has **mentioned Smart Meter and Prepaid Meters** and regulations related to the same, making it **mandatory to install smart meter**. This would help **proper accounting of power consumption and wastage**.
- **24\*7 Power supply is an obligation:** The draft amendments propose that **24X7 power supply is an obligation** and the state electricity regulatory commission can penalise the power distribution company (DISCOMS), if it fails to do so.
  - The Commission can suspend or revoke the **license of the DISCOMS** as well, which has been mandated for the first time.
- **Violation of PPA (Power Purchase Agreements) to be penalised:** The Act said that, “Violation of PPA will lead to penalties which may be as determined by the Appropriate Commission which may be fines which may extend to Rupees One crore per day, and, in case of licensees may also extend to suspension and cancellation of licence.”
  - This comes as a major relief for power generators which lately have been facing brunt of states cancelling PPA citing high cost or lack of funds.
- **Competition and choice are the Need of the hour in proposed Amendment:**
  - Bringing in **competition and choice** in supply for the final consumer has long been an **aim of electricity reform** and remains central to these amendments.
  - The idea is that while a **single public utility** will **run the wires** through which electricity flows, **multiple supply licensees** (both public and private) will be allowed to **compete for consumers**.
  - The intent is that the discipline of competing for customers will lead to **improved supply and lower bills**.
- **Subsidy Collective Responsibility of States and The Centre:**
  - Till now, it is only the responsibility of each State. The Centre, in future may have **access to enhanced tax revenues**, because it stands to gain from additional tax revenue from profitable new wires companies and private suppliers.
  - The Centre could become a **new fulcrum of redistribution** from wealthy areas in wealthy States, to the needy customers that are concentrated in a few States.
- **More Power to The Centre:**
  - Fiscal strategy of allowing **redistribution across States** provides greater control. It limits the States’ and regional political parties’ capability to make electoral use of electricity pricing.
  - The politics of power prices will shift **from sub-national to national electoral politics**. It proposes a reformulation of the selection committee for State regulators, from a majority of State representatives to a majority of Central representatives.
  - More oversight on capacity addition, through the requirement of detailed project report to the **Central Electricity Authority**.
  - The States are poor in several aspects, but, these proposals tantamount to **shifting the responsibility to the Centre instead of reforming the States**.

#### Way Forward:

- ✓ India’s electricity sector remains beset with problems. Yet, the amendments leave quite unclear what happens to those left behind **by distribution reforms** and **by efforts to help out generators**.
- ✓ But the amendments risk placing the cost of disruption on the backs of the poorest, and shifts the potential for ameliorative measures to the **hands of the Centre, rather than the States**.
- ✓ In the proposal it is also mentioned that the central government will, after consultation with the state governments, prepare and notify a **national policy for harnessing solar power and other forms of renewable energy** to ensure electricity to un-electrified rural households and permitting standalone systems.
- ✓ The Ministry of Power (MoP) has come up with an **ambitious plan to deliver 24x7 power for all by 2019** by creating an efficient, resilient and financially sustainable power sector.
- ✓ This objective, along with clean energy access have become the centre of all plans around **economic development and environment**.
- ✓ **Disruptive change in Indian electricity** may be needed, even inevitable.

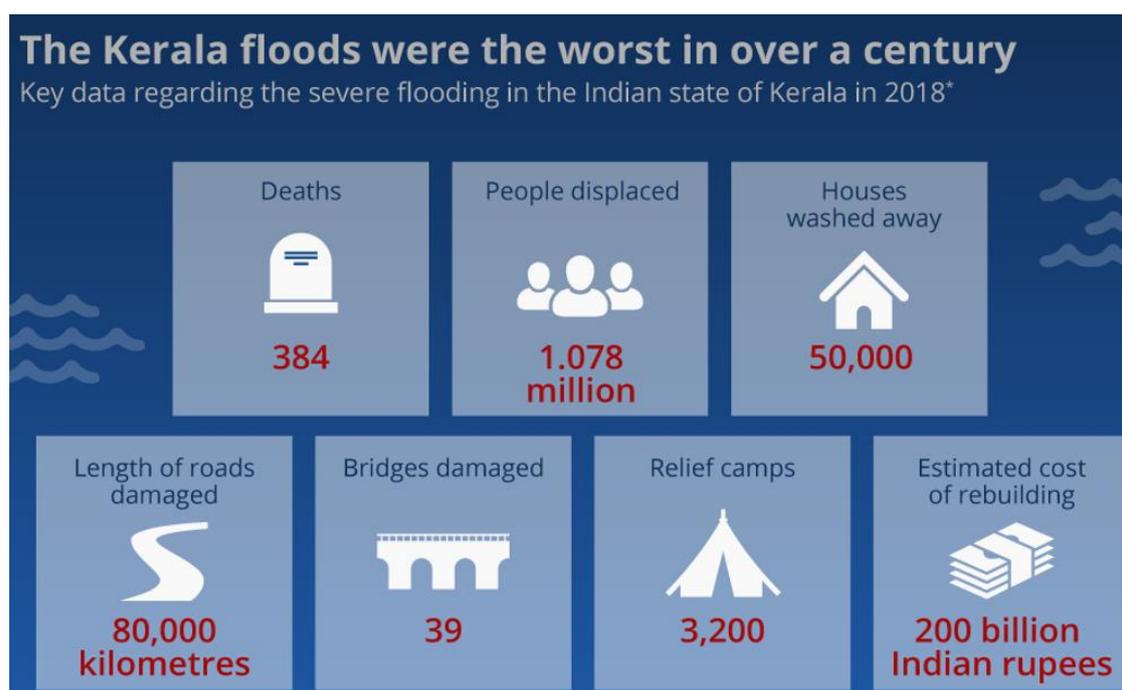
## 11. THE DIASPORA AND DISASTERS

### Importance of Diaspora to India:

- The **Indian Diaspora** is a generic term to describe the people who **migrated from territories** that are currently within the borders of the Republic of India. It also refers to their descendants.
- The Diaspora is currently estimated to number **over twenty million**, composed of **“NRIs”** (Indian citizens not residing in India) and **“PIOs”** (Persons of Indian Origin who have acquired the citizenship of some other country).
- The Diaspora covers practically every part of the world. It numbers **more than a million each in eleven countries**, while as many as twenty-two countries have concentrations of at least a hundred thousand ethnic Indians.

### Indian Diaspora played a crucial role in rehabilitation of Kerala Floods:

- There is **Department of Non-Resident Keralite Affairs**, headed by the Chief Minister.
- Department of Non-Resident Keralite Affairs looks at the welfare of the **3.4 million migrants globally**, in addition to nearly 2 million internal migrants within India. Malayalis, who moved from Kerala permanently with their family and live within the country or abroad number **around 2 to 3 million**, since the formation of the State in 1956.
- Kerala floods displaced **over a million people**. It directly affected over a **sixth of the state’s total population**.
- The losses are calculated to be **more than the state’s annual plan**. In 2017-18, Kerala’s annual plan outlay was Rs. 26,500 Cr. The contributions to Chief Minister’s Distress Relief Fund **crossed more than Rs. 1,680 Cr.**
- Remittances received in Kerala accounted for approximately Rs. 85,000 Cr in one single year.
- Union Minister KJ Alphons has announced that **Indian diaspora residing in China’s Shanghai** has contributed Rs. 32.13 lakh to the **Chief Minister’s distress relief fund for Kerala floods**.



### Kerala Migrants data:

- According to the **KMS (Kerala Migration Survey) 2018**, there are over 2.1 million Malayali emigrants globally and 1.3 million return migrants.
- The Department of Non-Resident Keralite Affairs, headed by the Chief Minister of Kerala, looks after the welfare of the **3.4 million migrants globally**, in addition to the nearly **2 million internal migrants within India**.
- These are Keralites who have direct connections to their households — fathers, mothers, spouses, and, in some cases, elderly children.

### Role played by the Diaspora at the time of Disaster Response:

- In a globalised world, the international dimensions of disaster response and recovery, and the **significant policy role** played by the diaspora can be critical.

- For example, after the **earthquake in 2010 in Haiti**, the Haitian diaspora in the U.S. served as a conduit for doctors, nurses, engineers, educators, advisers and reconstruction planners.
- **Haitian-Americans** continue to be **vital in long-term recovery** — as supplies, remittances, sharing human and financial resources, lobbying governments, international organisations and corporations for **disaster relief** and **redevelopment funding**, and in facilitating **eased travel restrictions**.
- In **Nepal, after the 2015 earthquake**, the Non-Resident Nepali Association collected \$2.69 million, mobilised over 300 volunteers including doctors and nurses, and pledged to rebuild 1,000 disaster resilient houses.
- In the **Tsunami in South Asia (2004) and the Pakistan earthquake (2005)**, diaspora and migrant remittances flowed generously, demonstrating the counter cyclical nature of remittances.
- In Kerala, the **migrant community and diaspora** moved swiftly to organise an **Internet-driven response**.

#### Conclusion:

- Diaspora can play an important role in **India's quest to be a knowledge power and a developed country**.
- By **sharing and re-sharing vital information** on affected regions and people, supplies, and precautionary measures (on social media platforms), Diaspora were instrumental in **expanding the flow of information** that would later be used by politicians, private and military rescue operations, and relief workers.
- India must follow a **robust and flexible policy** in order to leverage the **strengths of Diaspora** and minimize the possibilities of any negative fallout.

#### Way Forward:

- ✓ As the diaspora is one of the **greatest assets of Kerala**, communities should **improve relations with diaspora groups**. Return migrants should also act as **liaison agents**.
- ✓ Diaspora communities will also inevitably **shape political and economic responses to a disaster**.
- ✓ The **linking of social capital** between diaspora, civil society organisations, advocacy groups and government institutions, although necessary during rehabilitation, is bound to lead to **unanticipated and undesirable outcomes**.
- ✓ At least temporarily, the State may witness **higher rates of emigration** among the common people as they try to mitigate losses caused by the floods.
- ✓ For example, the KMS shows that **migrants use over 40% of their remittances** in purchasing land, construction and repayment of mortgage debt.
- ✓ Finally, there is a need to investigate the **relationship between rehabilitation and migration further**.
- ✓ To conclude, the **communication and transportation revolution** and the global reach of media are creating a major change in the **nature of relationship** between the Diasporas and their country of origin.

## 12. ANOTHER WARNING ON WARMING

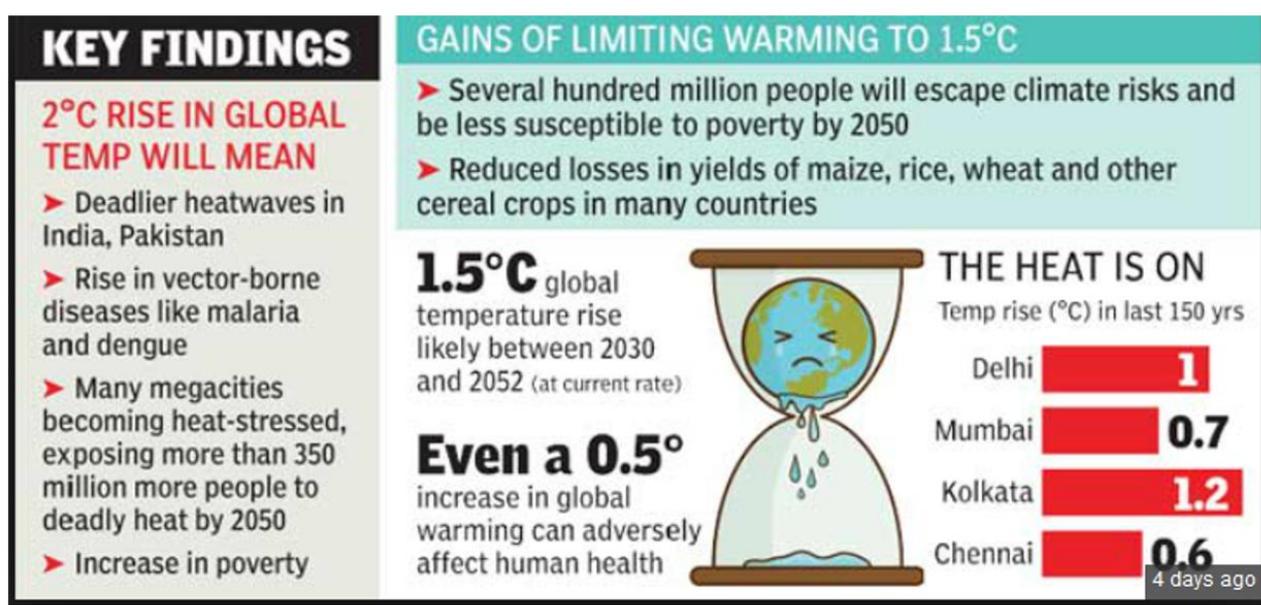
#### Context:

- The **Intergovernmental Panel on Climate Change (IPCC)** has released a special **report on global warming of 1.5°C** over pre-industrial temperatures.
- IPCC provides details on how the global response to climate change needs to be strengthened within the broader context of **sustainable development** and continuing efforts **to eradicate poverty**.
- The **impacts of 1.5°C of warming** and the possible development pathways by which the world could get there are its main focus.
- It was in 2015, at the **Paris climate conference**, that the global community made a pact to pursue efforts to **limit warming to within 1.5°C** — half a degree below the previous target of 2°C.
- With the increase in extreme events and the very **survival of small islands** at stake, the lower limit was greeted then with surprise and enthusiasm.

#### Why there is so much concern between 1.5°C and 2°C :

- For most people, the difference between 1.5°C and 2°C may seem trivial when daily temperatures fluctuate much more widely.
- However, the reference here is to **global average temperatures**. Different regions of the earth will warm at different rates. For instance, the Arctic is already experiencing warming that is many times higher than the global average.

- As per those reports, if the temperature goes beyond 2°C, then, the impacts of climate change could be **irreversible and catastrophic**.
- Mainly, **small island nations** and least developed nations are likely to suffer the most and hence, they asked for the **goal to restrict the temperature rise to even within 1.5°C**.
- The sea levels are expected to **rise on an average by about 50 cms by 2100**, when the World is warmer by 2°C.
- But, beyond 2100, the overall propensity for much **higher sea level rise** is greater in 2°C World.
- The risks to food security, health, fresh water, human security, livelihoods and economic growth are already on the rise and will be worse in a 2°C World.
- The number of people exposed to **complex and compounded risks** will also increase, mostly poorer countries in **Asia and Africa will suffer the worst**.
- This requires massive deployment of financial and technological resources.
- If nations do not mount a strenuous response against climate change, average global temperatures, which have **already crossed 1°C**, are **likely to cross the 1.5°C mark around 2040**.
- The window of opportunity to take action is very small and closing fast.



Several mitigation pathways to achieve these reductions and all of them incorporate different levels of CO2 removal:

- There are many synergies between achieving **mitigation targets** and fulfilling **Sustainable Development Goals**.
- To stay **below 1.5°C**, the transitions required by energy systems and human societies, in land use, transport, and infrastructure, would have to be rapid and on an unprecedented scale with **deep emission reductions**.
- How is the **remaining carbon budget**, that is the room available in the atmosphere to **safely contain more CO<sub>2</sub>**, going to be shared among different countries?
- This is a difficult question to address. The U.S. also reiterated its intent to pull out of the Paris Agreement. It has been reported, for instance, that the U.S. has been obstructionist in the deliberations at the recent meeting to determine the final text of this IPCC report.
- Contributions from the U.S. and other rich countries to the **Green Climate Fund and other funding mechanisms** for the **purpose of mitigation and adaptation** are vital even to reach the goals of the Nationally Determined Contributions (NDCs) commitments that each country made prior to the Paris conference.
- Even if all the NDCs are implemented, the **world is expected to warm by over 3°C**.

**Pathways and polices in Way Ahead:**

- The **IPCC report** identifies **two main strategies**.
  - The first **stabilises global temperature** around the **5°C mark** with limited overshoot and
  - The second permits temperatures to exceed 1.5°C temporarily before coming back down. The consequences of the temporary overshoot would cause worse impacts than the first approach.
- To limit warming to **around 1.5°C** with no or limited overshoot, **global net carbon dioxide (CO<sub>2</sub>) emissions** need to **decline by about 45%** from 2010 levels by 2030 and **reach net zero** around mid-century.

- To limit warming to the lower temperature goal, the world needs “**rapid and far-reaching**” changes in energy systems, land use, city and industrial design, transportation and building use.
- Emissions of **other greenhouse gases**, such as methane, also will have to drop. Switching away rapidly from fossil fuels like coal, oil and gas to do this could be **three to four times more expensive** than the less ambitious goal, but it would clean the air of other pollutants.
- And that would have the side benefit of avoiding more than **100 million premature deaths** through this century, the IPCC report mentioned this also.
- In comparison, to limit warming to just below 2°C, the reductions needed are **about 20% by 2030** and reach **net zero around 2075**.

#### Conclusion:

- ❖ The **IPCC report** stated that Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate.
- ❖ Disputes over the **implementation of the Paris Agreement** at numerous meetings depict the **deep divides** among rich countries, emerging economies and least developed countries.
- ❖ For scientists there is a bit of “**wishful thinking**” that the report will spur governments and people to act quickly and strongly, one of the panel’s leaders, German biologist Hans-Otto Portner, said, “**If action is not taken it will take the planet into an unprecedented climate future.**”
- ❖ This **special report** (IPCC report) poses options for the global community of nations, which they will have to **contend with in Poland**, the next Conference of the Parties.
- ❖ Each will have to decide whether to play politics on a global scale for one’s own interests or to collaborate **to protect the world and its ecosystems as a whole**. The path forward offers no simple or easy solutions.

## 13. WHEN A WOMAN IS HARASSED AT WORK

#### Context:

- Accusations of sexual assault have spread across **India’s social media** as the **#MeToo movement** took aim at prominent journalists, writers, editors and a comedian.
- Scores of women, many journalists, came out this week with **accounts of sexual harassment** from colleagues and editors, accusing them of indecent remarks, unwanted touches, demands for sex, and the dissemination of pornography.
- Many personal stories of anger and guilt, buried under **years of silence**, emerged out to public media because of this recent campaign.
- The last couple of years have seen a **tidal wave of sexual allegations and accusations against men** in professionally powerful positions across the globe, and it seems that finally, this wave has now reached Indian shores.

#### Indian Protection Act: Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013: Origin from Vishaka guidelines:

- Supreme Court in a judgment in 1997 laid the Vishaka guidelines, which are **legally binding**, defined sexual harassment and imposed **three key parameters** on the institutions **i.e., prohibition, prevention and redressal.**
- The Supreme Court directed that they establish a **Complaints Committee**, to look into the harassment at the workplace.
- Sexual Harassment of Women at Workplace (**Prevention, Prohibition And Redressal**) Act, 2013 defines **sexual harassment**:
  - It includes “**any one or more**” of the following “**unwelcome acts or behaviour**” committed directly or by implication:
    - Physical contact and advances, Sexually coloured remarks, Showing pornography, A demand or request for sexual favours, Any other unwelcome physical, verbal or non-verbal conduct of sexual nature.
- This Act lays down the procedures for a complaint and inquiry and the action to be taken.
- It mandates that every employer constitute an **Internal Complaints Committee (ICC)** at each office or branch **with 10 or more employees**.
- It lays down the procedures and defines various aspects of sexual harassment.

- A woman can be of any age, whether employed or not, who “alleges to have been subjected to any act of sexual harassment”, that means the rights of all the women working or visiting any workplace, in any capacity, are protected under the Act.

#### Internal Complaints Committee have Powers similar to Civil Court:

- ICC has similar powers to those of a civil court, in respect of the following matters:
  - Summoning and examining any person on oath.
  - Requiring the discovery and production of documents.
- While the inquiry is going on, if the woman makes a written request, ICC “may” recommend her transfer, leave for three months, or any other relief as may be prescribed.
- When the inquiry is completed, ICC is to **provide a report** of the findings to the employer **within 10 days**. The report is made available to both the parties.
- If the **allegations are proved**, ICC recommends that the employer take action for sexual harassment in accordance with the provisions of the service rules. These vary from company to company.
- It also recommends that the company deduct from the salary of the person found guilty,
- Compensation is based on: Suffering and emotional distress caused to the woman, Loss in career opportunity, Her medical expenses, Income and financial status of the respondent, Feasibility of such payment.
- After the recommendations, the aggrieved woman can **appeal in Court within 90 days**.
- If the complaint is found to be false then,
- **Section 14 of the Act** deals with punishment for false or malicious complaints and false evidence.
- In such case, ICC “may recommend” to the employer to take action against the woman, or the person who made the complaint, in accordance with the provisions of the service rules.

## SEXUAL HARASSMENT IN THE WORKPLACE

### WHAT IS SEXUAL HARASSMENT?

Sexual harassment is engaging in a course of vexatious comment or conduct that is known or ought to be known to be unwelcome, based on the prohibited grounds of sex, sexual orientation, gender identity, and gender expression. In some cases, one incident could be serious enough to be sexual harassment.

 @DiversityMusing

### EMPLOYER'S RESPONSIBILITY

- Create a safe and respectful work environment
- Develop a policy and procedures
- Promptly and appropriately respond to issues as they arise
- Educate managers about their roles and responsibilities
- Ensure senior managers lead by example

### SEXUAL HARASSMENT INCLUDES, BUT IS NOT LIMITED TO:

- Asking for sex in exchange for a benefit or a favour
- Degrading words and comments
- Degrading pictures or objects
- Making unnecessary physical contact, including unwanted touching
- Calling people sex-specific derogatory names
- Repeatedly asking for dates, and not taking “no” for an answer
- Making sex-related comments about a person’s physical characteristics or actions
- Saying or doing something because you think a person does not conform to sex-role stereotypes
- Posting or sharing pornography, sexual pictures or cartoons, sexually explicit graffiti, or other sexual images (including online)
- Making sexual jokes
- Bragging about sexual prowess
- Refusing to refer to a person by their self-identified name or personal pronoun
- Requiring a person prove their gender

Sources: Ontario Human Rights Commission, Sexual harassment in employment (fact sheet)  
City of Toronto, Sexual Harassment in the Workplace. August 2016.

### IF IT HAPPENS TO YOU

- Remember it's not your fault
- Talk to someone you can trust
- Document incidents
- Learn about your rights and options for getting the behaviours to stop 

### YOUR OPTIONS FOR RESOLUTION

- If it is safe and if you are comfortable, speak to the harasser
- Speak to your manager or Human Resources
- Go to the next person in authority if the harassment continues
- Make a formal complaint
- If you are threatened or assaulted, contact the police

### IF IT HAPPENS TO SOMEONE ELSE

- Object when you see sexual harassment -- Tell the person this behaviour is not okay
- Educate yourself on the issue
- Support co-workers who disclose they've been sexually harassed
- Respect whatever choice the person makes
- Request that your organization develops clear policies and procedures

#### Conclusion:

- ❖ Women can experience **lingering health problems** years after workplace sexual harassment or sexual assault even by words also, a new study finds.

- ❖ These **health problems** can include high blood pressure, poor-quality sleep, anxiety and symptoms of depression, the researchers found after doing medical exams of about 300 women.
- ❖ The findings are timely given **the #MeToo and #TimesUp movements**, in which a growing number of women are talking about their sexual harassment and assault experiences, according to a statement about the research, which was published in the journal **JAMA Internal Medicine**.
- ❖ This has to be analysed from global perspective in addition to Indian protection laws. (more articles in coming days)

#### Way Forward:

- ✓ Union Minister for Women and Child Development said they would set up a panel of legal experts to look into the **#MeToo allegations**.
- ✓ Civil Society and NGOs are trying to see how the movement can be taken beyond its current **confines of urban centres**. The hope now is that sexual harassment at workplace will **cease to be condoned or brushed under the carpet**.
- ✓ **SDG 5 is about gender equality** and Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all.
- ✓ They address global challenges, including those related to poverty, inequality, climate, environmental degradation, prosperity, and peace and justice.
- ✓ The Goals interconnect and in order to leave no one behind, the **target is to achieve them by 2030**.
- ✓ **Sexual harassment** and the **#MeToo movement** resonated at the opening plenary session of the **fifth Global Symposium on Health Systems Research** with speakers highlighting how this is just the **"tip of the iceberg"** and there is a long road ahead in **achieving sustainable development goals** with leaders sometimes being sexual harassers.
- ✓ The #MeToo movement has shown us that even the **most privileged** among women have not been spared from **cultures of sexual harassment and exploitation**.

## 14. THE GREAT INDIAN ABDICATION

#### Introduction:

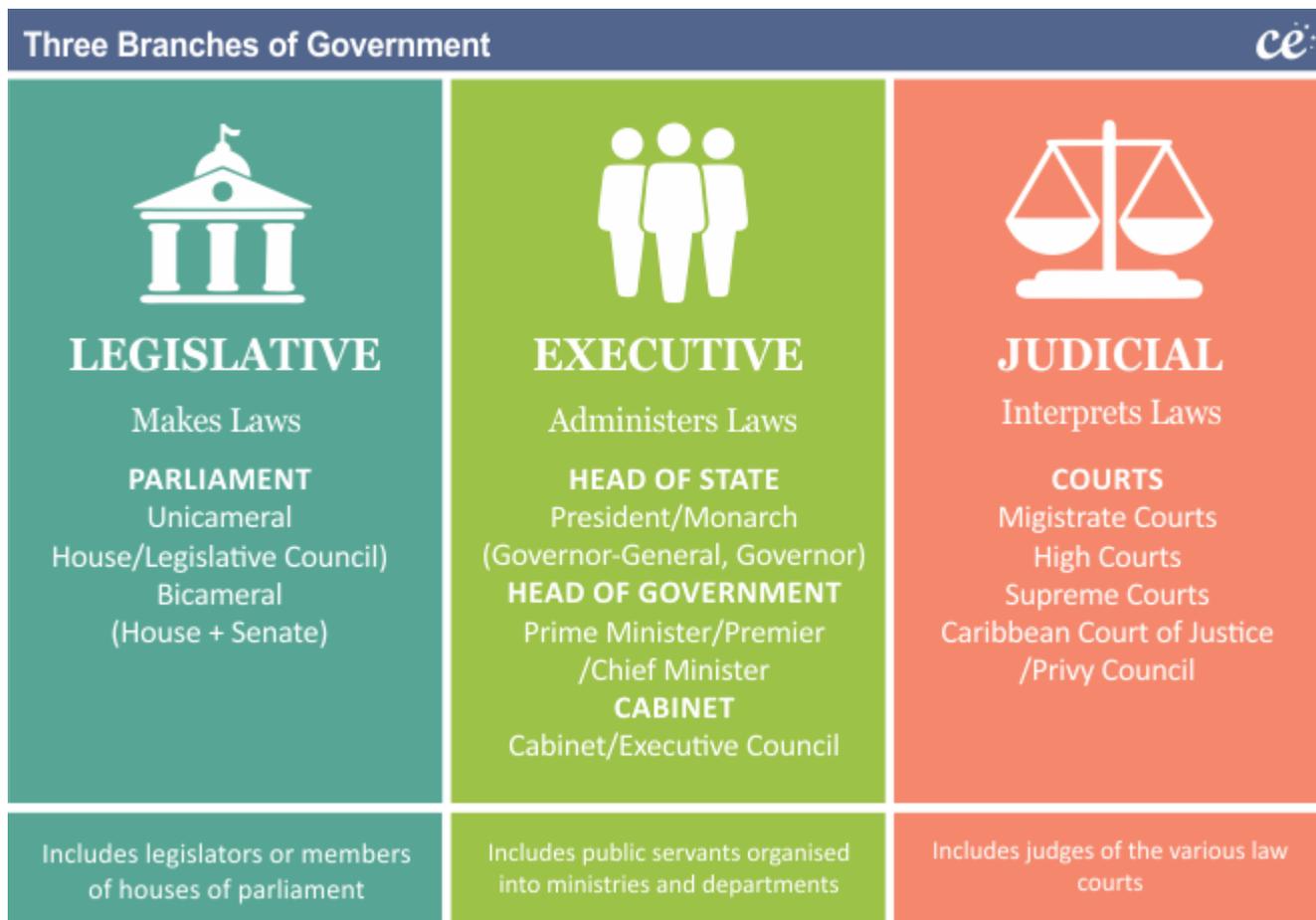
- The mission of **deepening democracy** and protecting and advancing social freedoms is placed solely on the Judiciary, but the **role of Parliament is forgotten**.
- After the slew of **verdicts by the Supreme Court**, on triple talaq, Section 377, adultery, and the Sabarimala temple, a prominent cartoonist adapted the famous **"Road to Homo Sapiens (present Humans)"** picture to depict the Supreme Court Justice as a barber who cleans up the **barbarous Neanderthal** (one of the stages of evolution of human) to make him a **modern human**.

#### Role of Supreme Court is changing as a Legislature:

- If the judiciary has assumed the role of the **single most important pillar** of India's parliamentary democracy, built on **separation of powers**, it is mainly because of the **degradation and abuse of the roles** of the legislature and the executive.
- India, at present, is going through a **deep crisis** in which the mission of **deepening democracy**, and protecting and advancing **social freedoms** is placed solely upon the judiciary.
- **For Instance**, Judgements regarding Triple Talaq, Section 377, Adultery law, Sabarimala temple women entry
- On the one hand there is a **complete abnegation** of the **role of the legislature**, and on the other, there is a dichotomy **between social morality and judicial morality** (itself an interpretation of constitutional morality).
- Both are dangerous tendencies.

#### Case backlogs in Supreme Court and High Courts:

- The abdication of responsibility by the legislature is even more damaging considering that the judiciary is groaning under the **weight of a mammoth 3.3 crore pending cases**.
- The **backlog of cases in the High Courts and the Supreme Court is 43 lakh and 57,987 respectively**.
- What could be more unjust in a democracy than **thousands of innocent undertrials languishing in jails for a lifetime awaiting justice?**
- **A staggering 67% of India's prison population awaits trial; 55% of these undertrials are Dalits, tribals, and Muslims.**



#### Degeneration of PILs Purpose:

- In this context, should the valuable time of the judiciary be spent in entertaining and delivering verdicts on **Public Interest Litigations (PILs)**, seeking, to take a couple of instances, a ban on pornography or making the national anthem mandatory in cinema halls?
- The **PIL, a unique and powerful tool to seek justice** for the weakest sections, has now degenerated.
- Witness the recent example of one having been filed seeking segregated seats for **vegetarian and non-vegetarian passengers** in trains.
- Overworked courts cannot become a **one-stop solution** for performing legislative/executive tasks such as banning fire crackers/loud speakers and enforcing seat belt/helmet wearing rules.
- Some more examples are **solving theological/civil society questions** such as what the essence of Hinduism is or whether a mosque is integral for namaz (going beyond whether religious practices violate constitutional norms).

#### Role of Parliament as a “Debate Temple” is degrading:

- The Supreme Court verdicts have curiously become a **spectator sport** on primetime television with a **great amount of anticipation** about the judgments in pending cases.
- The same curiosity is missing about **parliamentary bills/debates**, which are absolutely vital to a parliamentary democracy.
- One example would suffice. Earlier this year, the government amended the ***Foreign Contribution Regulation Act to retrospectively legalise political donations from foreign companies and individuals since 1976.***
- This move with potentially **catastrophic ramifications** for Indian democracy was pushed through without discussion in Parliament and **hardly any debate in the public sphere.**

#### Parliament’s erosion in recent years:

Parliament, the **supreme venue representing the people**, has become a shadow of what it should be.

- If the Lok Sabha met for an **average of 127 days in the 1950s**, in **2017 it met for a shocking 57 days.**
- If 72 Bills were passed in a year in the first Lok Sabha, the number was **40 in the 15th Lok Sabha (2009-14).**
- The critics view that the Prime Minister rarely attends parliamentary debates, affecting the **sanctity of the forum.**

- The Budget session for this fiscal year saw a scarcely believable **usage of 1% of its allotted time in the Lok Sabha**, and the **Budget, the most vital cog of a national's material basis**, itself passed without discussion through the guillotine process.
- The basic minimum that could have been done amidst mounting allegations in the **Rafale fighter aircraft deal** was to institute a probe by **a Joint Parliamentary Committee**, but even that is not forthcoming.
- Parliament, instead of representing the **highest democratic ethos**, panders to electoral majorities, leaving it incapable of challenging barbaric social/religious practices enforced by dominant interests.
- That is why it took 70 years for **Section 377 to be partially struck down**, then it is not surprising that the Supreme Court steps into this dangerous void left by the executive and the legislature.
- But the **task of democratising society** cannot be left to the judiciary, an unelected body, the higher echelons of which **self-appoint their members through the collegium system**.
- Instead, it must be through **social and political struggles** from the bottom, and not **through judicial diktats** from above (even if the latter can be useful).

#### Way Forward:

- ✓ **Overworked courts** cannot become a **one-stop solution** for **performing legislative/executive tasks** such as banning fire crackers/loud speakers, enforcing seat belt/helmet wearing rules, or solving theological/civil society questions such as what the essence of Hinduism is or whether a mosque is integral for namaz (going beyond whether **religious practices violate constitutional norms**).
- ✓ The task of completing the **world's largest democracy's political and social revolution** cannot be laid only at the doorstep of the wise men and women in robes.
- ✓ The task of **democratising society** must be through **social and political struggles** from the bottom, and not through judicial diktats from above (even if the latter can be useful).
- ✓ In a **constitutional democracy**, power is divided so that the legislature makes the laws, the executive authority enforces and carries them out, and the judiciary operates independently. No one branch can control **all power in a democratic system**. This is referred to as the **Separation of Powers**.

## 15. HELPING THE INVISIBLE HANDS OF AGRICULTURE

#### Context:

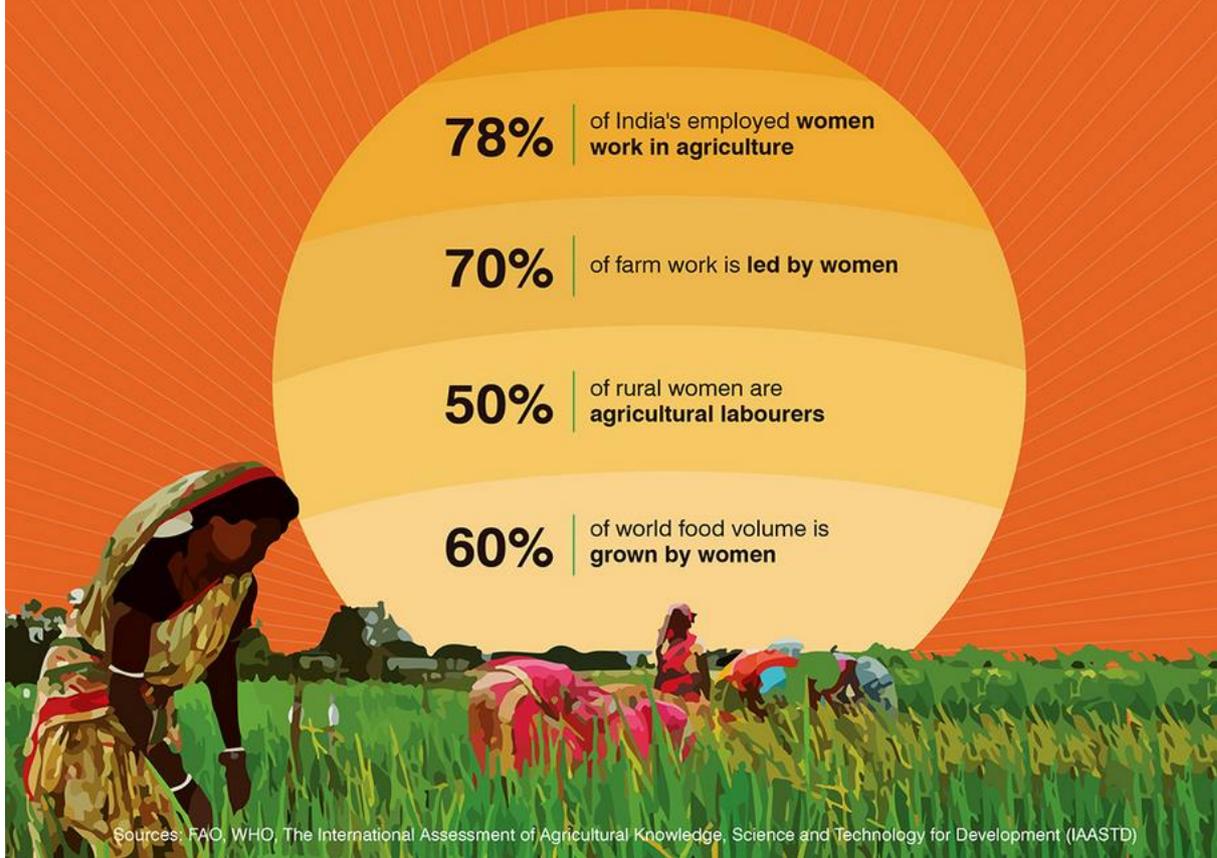
- Since 2017, **October 15** is celebrated as **Rashtriya Mahila Kisan Diwas in India**. UN observed this day as **International Day of Rural Women by the United Nations**.
- In 2016, the **Ministry of Agriculture and Farmers' Welfare** decided to take the lead in celebrating the event, recognising the **multidimensional role of women at every stage in agriculture** from sowing to planting, drainage, irrigation, fertilizer, plant protection, harvesting, weeding, and storage.
- This year, the Ministry has proposed deliberations to discuss the **challenges that women farmers face** in crop cultivation, animal husbandry, dairying and fisheries.
- The aim is to work towards an **action plan using better access to credit, skill development and entrepreneurial opportunities**.

#### Women in Agriculture:

- The **Agriculture Census (2010-11)** shows that out of an estimated 118.7 million cultivators, **3% were females**.
- According to **Oxfam India**, women are responsible for **about 60-80% of food** and **90% of dairy production**, respectively.
- Similarly, out of an estimated 144.3 million agricultural labourers, **6% were females**.
- According to **Census 2011**, there has been a **24% increase** in the number of female agricultural labourers between 2001 and 2011.
- As per Census 2011, out of total female main workers, **55% were agricultural labourers and 24% cultivators**.
- Participation of both men and women in agriculture has declined, but the rate of decline has been faster among men than it has among women.
- **Decline among women** has been specifically in relation to their roles as cultivators, however their numbers as **agricultural labourers have increased**.

# Celebrating the role of women in agriculture

This Women's Day, let's take a quick glance at how women have dedicated their lives to nurture agriculture in India.



## Women's work goes on Unnoticed:

- The **work by women farmers**, in crop cultivation, livestock management or at home, often **goes unnoticed**.
- Rural women are engaged in agricultural activities in **three different ways** depending on the **socio-economic status**: They are work as:
  - Agricultural Labourers or as Cultivator doing labour on their own land or as Managers of certain aspects of agricultural production by way of labour supervision and the participation in post-harvest operations.
  - Attempts by the government to **impart them training** in poultry, apiculture and rural handicrafts is trivial given their large numbers.
  - In order to **sustain women's interest in farming** and also their uplift, there must be a vision backed by an appropriate policy and doable action plans.
  - While the "**feminisation of agriculture**" is taking place at a fast pace, the government has yet to gear up to address the challenges that women farmers and labourers face.

## Issue of land ownership:

- The **biggest challenge** is the **powerlessness of women** in terms of claiming ownership of the land they have been cultivating.
- In **Census 2015**, almost **86% of women farmers** are **devoid of this property right in land** perhaps on account of the patriarchal set up in our society.
- Notably, a lack of ownership of land does not allow women farmers to approach banks for institutional loans as banks usually **consider land as collateral**.
- As of now, women farmers have **hardly any representation in society** and are nowhere discernible in farmer's organisations or in occasional protests. They are the invisible workers without which the agricultural economy is hard to grow.
- A **declining size of land holdings** may act as a deterrent due to lower net returns earned and technology adoption.

**Solution for land ownership Issues:**

- Research worldwide shows that women with **access to secure land, formal credit and access to market** have greater propensity in making investments in improving harvest, increasing productivity, and improving household food security and nutrition.
- **Provision of credit without collateral** under the micro-finance initiative of the National Bank for Agriculture and Rural Development should be encouraged.
- Better access to credit, technology, and provision of entrepreneurship abilities will further **boost women's confidence** and help **them gain recognition as farmers**.
- The possibility of **collective farming** can be encouraged to make **women self-reliant**. Training and skills imparted to women as has been done by some self-help groups and cooperative-based dairy activities (**Saras in Rajasthan and Amul in Gujarat**).
- These can be explored further through **farmer producer organisations**. Moreover, government flagship schemes such as the National Food Security Mission, Sub-mission on Seed and Planting Material and the Rashtriya Krishi Vikas Yojana must include **women-centric strategies and dedicated expenditure**.

**Female Farmers: Labour Intensive Tasks as well as Household Activities:**

- Female cultivators and labourers generally perform **labour-intensive tasks** (hoeing, grass cutting, weeding, picking, cotton stick collection, looking after livestock).
- In addition to working on the farm, they have **household and familial responsibilities**.
- Despite more work (paid and unpaid) for longer hours when compared to male farmers, women farmers can neither make any claim on output nor ask for a higher wage rate.
- An **increased work burden with lower compensation** is a key factor responsible for their marginalisation.

**Gender-Friendly tools and train Women Farmers about Innovative Technologies:**

- It is important to have **gender-friendly tools and machinery** for various farm operations. Most farm machinery is difficult for women to operate.
- Manufacturers should be incentivised to come up with **better solutions**. Farm machinery banks and custom hiring centres promoted by many State governments can be roped in to provide subsidised rental services to women farmers.
- Women generally have **less access to resources and modern inputs** (seeds, fertilizers, pesticides) to make farming more productive.
- The **Food and Agriculture Organisation** says that equalising access to productive resources for female and male farmers could increase agricultural output in developing countries by as **much as 2.5% to 4%**.
- **Krishi Vigyan Kendras in every district** can be assigned an additional task to educate and train women farmers about innovative technology along with extension services.

**Way Forward:**

- ✓ As more women are getting into farming, the foremost task for their sustenance is to **assign property rights in land**.
- ✓ Once women farmers are **listed as primary earners and owners of land assets**, acceptance will ensue and their activities will expand to acquiring loans.
- ✓ Then they can decide the crops to be grown using **appropriate technology** and machines, and disposing of produce to village traders or in wholesale markets, thus elevating their place as real and visible farmers.
- ✓ To achieve the **full economic benefit from employment**, rural women should be provided a **greater choice over their occupations** so that they are not forced to do the work left behind by men.
- ✓ It is thus important to have **overall women empowerment through education, awareness and doing away with gender biases**.

**16. BONDING WITH AFRICA, IN PARTNERSHIP****Context: Forum on China-Africa Cooperation (FOCAC):**

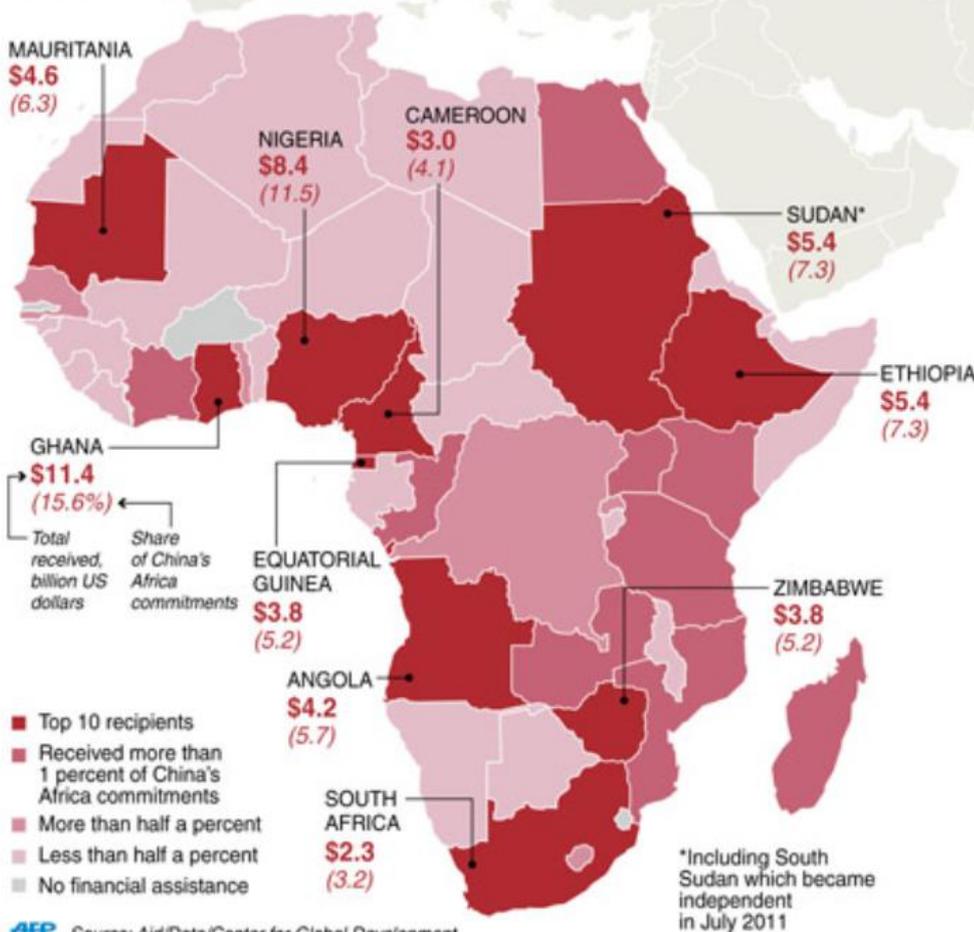
- Chinese President Xi Jinping grabbed headlines by announcing a hefty **\$60 billion package for Africa**.
- African leaders have been naturally expressing overwhelming happiness after Mr. Xi's announcement in Beijing at the inaugural of **the Forum on China-Africa Cooperation (FOCAC)**.

- The **50-plus African leaders** and their Chinese hosts **charted big plans** to build roads, power plants, and railways and much more in Africa.

## China assistance to Africa

During the last decade, China has been investing heavily in African natural resources, developing mines, oil wells and running related construction companies

**Top recipients of Chinese finance to Africa 2000-2011**  
Survey of media reports on 1,673 Chinese-backed projects



### Billion-dollar projects

<b>Ghana, 2010</b>	Concessional loan	\$5.49 billion
<b>Nigeria, 2006</b>	Infrastructure in exchange for preferential oil right bidding	5.38
<b>Mauritania, 2006</b>	Oil exploration, sewage systems, iron mine, road	4.04
<b>Ghana, 2009</b>	Loan for oil and road projects	3.0
<b>Equatorial Guinea, 2006</b>	Oil-backed loan	2.69
<b>Ethiopia, 2009</b>	Loan for dam construction	2.25
<b>South Africa, 2011</b>	Financial cooperation agreement	2.25
<b>Angola, 2004</b>	National Rehabilitation Project	1.51
<b>Madagascar, 2008</b>	Hydroelectric construction	1.42
<b>Sudan, 2007</b>	Railway construction	1.38
<b>Angola, 2009</b>	Agriculture development	1.20
<b>Zimbabwe, 2004</b>	Powerplant construction	1.01

### China's move will affect on Emerging Economies:

- Mr. Xi's mega announcement should **trigger celebrations** not only in Africa, but also among heads of the emerging economies, especially those of other nations in the **Brazil-Russia-India-China-South Africa (BRICS)** grouping.
- That is, if they reject the media-hyped argument that China, eyeing **Africa's natural resources**, is seeking to ensnare the continent into another round of political serfdom through **carefully laden "debt traps"**.

### Strategies adopted by Indian government:

- Pan African level engagement
- Partnership with regional organization
- Development partnership through IBSA and BRICS
- Bilateral engagement with countries
- Involving Indian communities and Indian Diaspora

### Difference in Approaches of India and china towards Africa:

- Like China, India also hosts its **own triennial conclave** with African leaders, which was last held in 2015.
- Though headline numbers show that in dollar throughput, it is **distant from China**, India's contribution to Africa's development is nonetheless significant.
- If China and India are serious about the **rise of Africa**, the key is to **co-link their development strategies** on a continental scale.
- The good news is that both countries seem to have done some spadework, in finding an **imaginative coordinating mechanism** that could benefit them, as well as Africa.
- Ahead of the **BRICS summit in Johannesburg** in July, the Chinese Foreign Ministry put out the message that New Delhi and Beijing should vigorously pursue the **'China-India Plus One' or 'China-India Plus X' model** in engaging with Africa.

- The mandarins in Beijing were referring to the mechanism yielded **by the Wuhan informal summit**, where it was decided that China and India would coordinate their approaches for engaging a third country or set of countries in South Asia and beyond.
- The Chinese also described **Beijing and New Delhi as “like-minded partners” in Africa**.
- Meanwhile Russia has already launched an **initiative to bond with Africa**.

#### India has comparative edge over China in Africa:

- Amid increasing Chinese influence over the mineral and hydro-carbon rich Africa, India too has intensified its efforts to strengthen ties with the continent.
- India has extended **Line of Credit worth millions of dollars** in varied areas to the African countries.
- India has a “comparative advantage” over China in **building connectivity projects and trade corridors in Africa** due to its compatibility and proximity to the continent.
- India and many African countries focussing on stepping up cooperation in trade and investment, defence and security and oil gas sectors among others.
- The **term ‘Indo-Pacific’** is a recognition of India’s pivotal role in establishing trading regimes and rules-based maritime freedom of navigation, and noted that Africa “counts” on India to play a very important part **strategically and politically for the same**.
- The Chinese are subsidising the construction of their infrastructure requirements to enable the Chinese investors to come.
- Many African countries opined that the Chinese were “outdating” certain “sunset” industries and moving towards high gear industrialisation to make machines which manufacture machines.
- India is a “**pivot**” in the **Indo-Pacific region** and it has “played a critical role in creating a **conductive maritime regime**” for a rules-based freedom of navigation.

#### Conclusion:

- ❖ **South Africa**, the host of the recent BRICS summit and **co-chair of FOCAC** in Beijing, will always remain the **natural gateway for a vibrant emerging economy engagement with Africa**.
- ❖ A post-Wuhan India must pick up the threads and weave a potent emerging economy narrative for **bonding with Africa**, triggering a **structural shift of global significance**.

#### Way Ahead:

- ✓ The African countries are set to launch the **African Continental Free Trade Area or AfCFTA**, the biggest free trade agreement in the world since the World Trade Organization was created in the 1990s.
- ✓ When implemented, the AfCFTA is projected to **increase intra-African trade by 52.3 percent by 2022**, from 2010 levels.
- ✓ In turn, higher trade levels can facilitate economic growth, transform domestic economies, and help the countries **achieve the Sustainable Development Goals (SDGs)**.
- ✓ The AfCFTA will provide a **number of opportunities** for the Indian firms and investors to tap into a larger, unified, simplified and more robust African market.
- ✓ It is critical for India to view Africa not just as a destination for short-term returns but as a **partner for medium and long-term economic growth**.

## 17. HAMSTRINGING THE RTI ACT

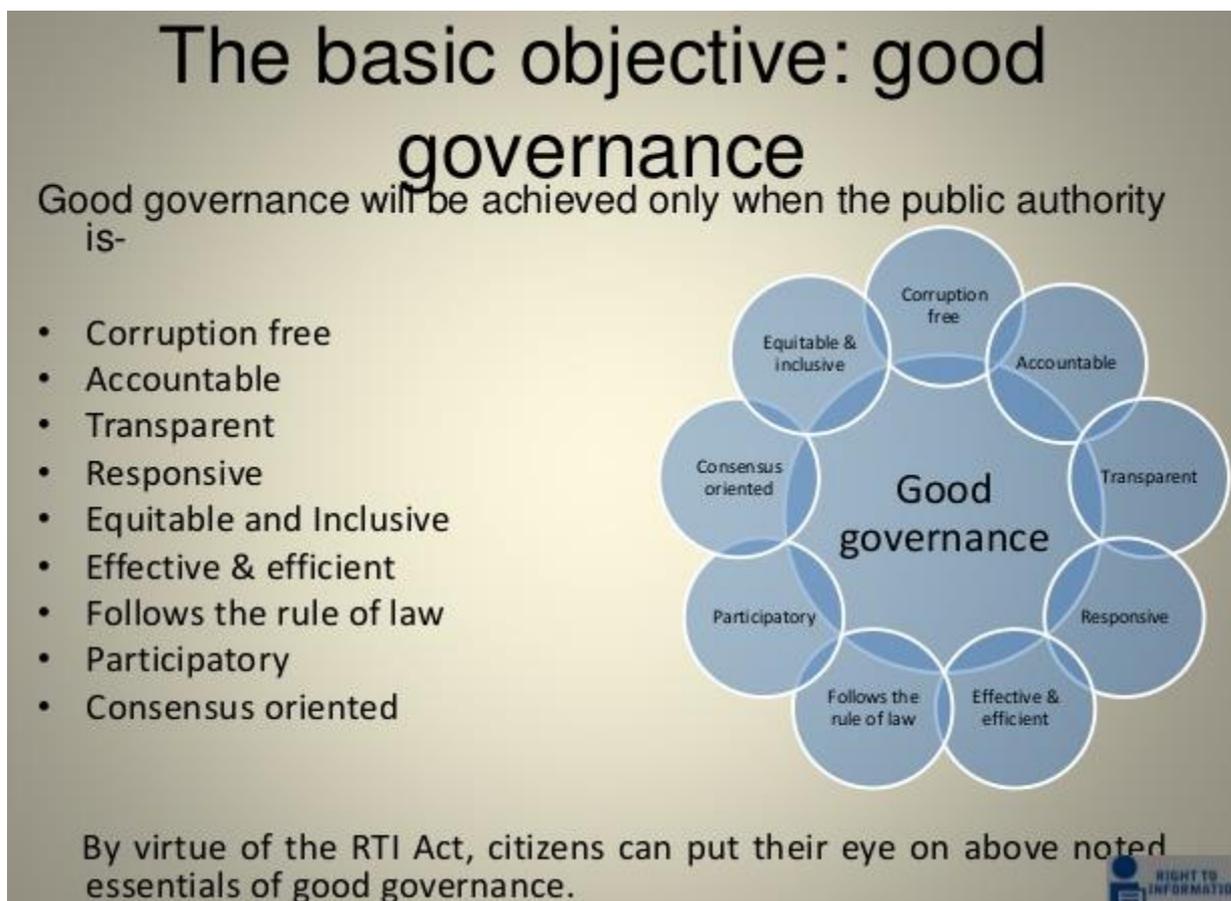
#### Context:

- RTI is one of the **landmark acts** which has led to a **significant boost** in accountability of the govt towards the people.
- The Right to Information (RTI) Act, operationalised in October 2005, was seen as a **powerful tool for citizen empowerment**. It showed an early promise by exposing wrongdoings at high places, such as in the organisation of the Commonwealth Games, and the allocation of 2G spectrum and coal blocks.
- The **RTI Assessment and Analysis Group (RAAG) report** found: 4-5 million applications are filed under the Act every year.

#### Proposed Amendments to RTI Act:

- The govt has recently **proposed some changes** in the act which are said to be **regressive in nature**.

- There are set of targeted and fashioned amendments to the RTI Act which will not only **undermine one part of the Act** but **structurally weaken** the independence and authority of the only body that gives it teeth, thereby **nullifying the entire Act**.
- The government proposes to do away with the **equivalence** of the **Central Information Commissioners** with the **Election Commissioners** on the ground that the two have different mandates.
- The underlying assumption that **transparency** is less important for a democracy than holding of free and fair elections is absurd.
- The government also proposes to **replace the existing fixed five-year tenure** of the Information Commissioners with tenure as may be prescribed by it. This would make the tenure largesse to be **bestowed by the government**.
- This would be detrimental to the **independence and authority** of the Information Commissions.



However, the Act faces certain challenges:

- **Huge level of pendency of cases** both at national as well as state levels.
- **Non-imposition of penalties** – data supplied by 20 commissions shows that penalty was imposed in **just 2.4% of the cases** disposed of.
- More than **40 RTI activists** had been killed in the process of exposing wrongdoing.
- **Laxity by public authorities** in publishing information.
- The RTI Act, did not give **adequate authority** to the Information Commissions to enforce their decisions.

The reasons for the above challenges include:

- **Poor record-keeping practices** within the bureaucracy.
- **Lack of infrastructure and staff** for running Information Commissions.
- Dilution of supplementary laws such as the **Whistleblower Protection Act**.
- **Inadequate training** to civil servants for implementing the Act.
- **Delayed appointments** of Information Commissioners (ICs)

Misuse of the act:

- The **clogging of the RTI system** is also because a number of applicants, usually disgruntled employees of public institutions, ask frivolous queries.

- Their applications have unfortunately continued to exist alongside those of numerous RTI activists who have done commendable work, often risking their life and limb.

#### Strength and appointments to Information commissions is the Need of the Hour:

- The Central and State Information Commissions have been functioning with less than their **prescribed maximum strength of eleven** because governments have dragged their feet on appointing commissioners.
  - For instance, the Central Information Commission (CIC), currently having seven members, will have only three by the end of the year if no appointments are made.
- This leads to **delay in disposal of cases**, which is compounded by the backlog in the High Courts, where a number of decisions of the commission are challenged.
- This happens invariably in cases concerning the **high and the mighty**.
  - For example, the CIC's decision in 2007 to cover Indraprastha Gas Ltd. under the Act was stayed by the Delhi High Court, and the stay continues to operate.
- The Act struck a balance between **privacy and transparency** by barring the disclosure of personal information if it has no relationship to any public activity or would cause unwarranted invasion of privacy.
- However, the Justice **Srikrishna Committee** has proposed an amendment that would **broaden the definition of 'harm'**, restricting disclosure of personal information even where it may be clearly linked to some public activity.

#### Benefits of right usage of RTI:

- The right to information laws, alongside expanding the citizen's rights, should be systematically employed to **transform governance**.
- These laws could be a **powerful magnet** for mobilizing the people and enthusing them to use these laws to enhance and expand their choices for their own betterment.
- RTI laws directly contribute to **improvement in governance** by breaking down the barriers between the government and the people by enhancing trust.
- RTI is the **most powerful assault** on developing countries **endemic corruption**.
- RTI should be an instrument to bring an end to the culture of **governmental secrecy** and the **battle for transparency** is to be fought and won in the minds of the civil servants.

#### Conclusion:

- ❖ For over a decade, citizens of India have **tenaciously protected and guarded** this people's legislation, preventing repeated attempts to dilute the Act through amendments.
- ❖ Interestingly, no government has bothered to **propose amendments** which would make the **RTI Act more robust and effective**.
- ❖ Thirteen years of the Act's functioning have given us enough experience to hold a **public debate on making it more effective**.
- ❖ However, if the issues listed above are not addressed, this sunshine law will lose its promise, particularly in terms of ensuring transparency at higher levels of governance.
- ❖ Nonetheless, **pre-legislative consultation** prior to the amendment is a more effective and democratic way to bring any changes to the Act. RTI is a mechanism to **develop and ensure transparency and accountability**, in line with **Article 19(1)(a)** of the Constitution. All efforts must be directed to strengthen it.

## 18. A SECURITY ARCHITECTURE WITHOUT THE MORTAR

#### Introduction: (Critical views about National Security) :

- India's national security environment has **steadily deteriorated** since 2014.
- **New Delhi's neighbourhood policy** continues to be in the doldrums and there is a clear absence of vision on how to balance, engage and work with the many great powers in the regional and the broader international scene.
- Both the **overall violence** in Jammu and Kashmir and ceasefire violations on the Line of Control reached a 14-year high in 2017, a trend that refuses to subside in 2018.
- There are far more attacks on **security forces and security installations in J&k**, and militant recruitments and violence against civilians in the State than at any time in the past decade-and-a-half and the pressure from China is on the rise

- The **surgical strikes** hardly made **any significant gains**, and the Chinese forces (by all accounts including a report of the Parliamentary Standing Committee on External Affairs) are back in the **Doklam plateau** with more force.

#### Context: New Security Architecture Provisions:

- Considering the **complex security environment** and volume of expenditure on national defence, it was imperative to have **strong defence planning mechanism**.
- In April this year, the Union government set up a **Defence Planning Committee (DPC)** to assist in the **creation of national security strategy**, international defence engagement strategy, roadmap.
- Earlier this month, it also decided to **revive the Strategic Policy Group (SPG)** within the overall National Security Council (NSC) system.

#### Towards Credible Defence Preparedness:

- The formation of the DPC is likely to **bridge a key gap** in the existing defence planning mechanism, which, for long, was thought would be met through the creation of the **post of Chief of Defence Staff (CDS)** as the ultimate arbitrator of all requirements of the armed forces including the planning aspects.
- Overall, the extant system of defence planning resulted in: **(existing Drawbacks):**
  - The provision of less than adequate resources to meet numerous security challenges.
  - Chasing goals that were not of immediate priority.
  - Duplication and wastage of scarce resources.
  - Giving less than required focus on new technological advancements while pursuing manpower driven military modernisation and,
  - A defence R&D and manufacturing base losing its sight on self-reliance.
- With the **powerful DPC in place** and the NSA assuming the **role of de facto CDS** for all practical purposes other than in operational matters, the defence planning process is expected to become **more rational as well as provide a much needed boost to defence preparedness**.
- The realistic expectation is that the DPC would clearly articulate the key national security/ defence/ military goals as well as prioritise defence and security requirements as per the likely available resources.
- At the same time **providing adequate focus** on emerging security challenges, technological advancements, and establishing a strong indigenous defence manufacturing base.

#### Fall-backs in India's defence structure:

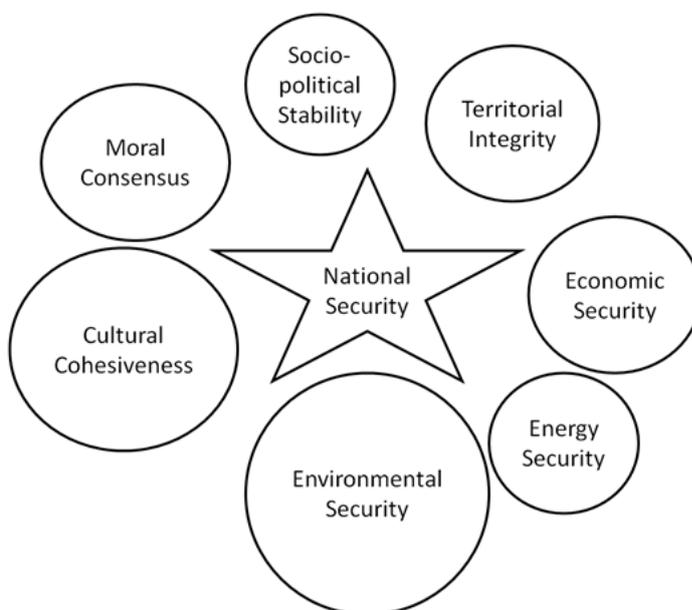
- India spends close to \$50 billion annually on defence** and yet there are serious concerns about the level of our defence preparedness. India might be ill-equipped to fight the wars of the modern age
- There is a **little conversation** between the armed forces and the political class, and even lesser conversation among the various arms of the forces
- One of the **most serious lacunas** in our defence management is the **absence of jointness in the Indian armed forces**.
- Our doctrines, command structures, force deployments and defence acquisition continue as though each arm is going to fight a future war **on its own**.

#### About Defence Planning Committee (DPC):

- The Union Government has formed **Defence Planning Committee (DPC)**, a **new integrated institutional mechanism** that will drive country's military and strategy and guide defence equipment acquisitions. It will be under the chairmanship of National Security Advisor Ajit Doval.
- The committee will be a **permanent body** and it will **prepare draft national security strategy** besides undertaking strategic defence review and formulating international defence engagement strategy.

#### The DPC aims to

- build a defence manufacturing ecosystem
- strategy to boost defence exports
- prioritize capability development plans



**Outcomes expected from SPG and DPC:**

- All that the SPG and DPC would achieve is to further bureaucratise the national security decision making and **centralise all national security powers** under the PMO.
- Top-heavy systems hardly work well unless supported by a **well-oiled institutional mechanism**.

**Way Forward: Need of national vision on security is the Need of the Hour:**

- ✓ There is a need to demonstrate how the political process of developing national consensus on a **new or revised national security strategy (NSS)** can be facilitated, with an emphasis on the decision-making logic behind such a process.
- ✓ It is meant as a 'roadmap' for how a **national security policy (NSP)** could be developed and extended to become a **fully-fledged NSS**.
- ✓ Many of India's national security inadequacies stem from the absence of a **national security/defence vision**.
- ✓ Ideally, the country should have an **overall national security document** from which the various agencies and the arms of the armed forces draw their mandate and create their **own respective and joint doctrines** which would then translate into operational doctrines for tactical engagement.
- ✓ In the absence of this, as is the case in India today, **national strategy** is broadly a function of ad-hocism and personal preferences.

## 19. UNCLOGGING OUR OCEANS

**Introduction: What is Ghost Gear?**

- Ghost gear is the **waste left from fishing activities** that now floats in our oceans and has the potential to **entangle or kill the animals** that live there. It is estimated in fact that for each piece of ghost gear six animals are harmed.
- Animals of all sizes, from whales to the endangered Loggerhead and Leatherback sea turtles, to small fish like the Brook Trout, run the risk of being **entangled, injured and even killed every day**.
- Recently, In March 2018, fishermen hauled **400 kg of fishing nets** out of the sea in a few locations off **Kerala's south coast**.
- There are many such reports of divers regularly making underwater trips just to extract nets that have sunk to the ocean floor off India's coasts, ranging from **Tamil Nadu to Maharashtra**.
- The problem of ghost gear (any fishing equipment that has been lost, discarded or abandoned in water bodies) has grown from fishing fallout that people had not heard of to one that is now difficult to ignore.

**Global statistics and topics:**

- 10% of all ocean garbage/marine debris is from ghost gear
- More than 640,000 tons of ghost gear is left in our oceans each year.
- More than 136,000 seals, dolphins, whales, turtles and other sea animals get trapped/entangled in ghost gear each year.
- Ghost gear can take up to 600 years to decompose.
- Most of this gear is made of plastics that can take centuries to degrade – and adds to marine plastics

**Consequences of marine debris:**

- Globally every year, more than 100,00 whales, dolphins, seals and turtles are **caught in 'ghost gear'** as abandoned, lost and discarded fishing nets, lines and traps which can take up to 600 years to decompose.
- The vast majority of this gear is made of plastics that **take centuries to degrade**. Animals caught in this incredibly durable fishing gear then suffer a prolonged and painful death, usually suffocating or starving to death over a number of months.
- Between 2011 and 2018 alone, the **Olive Ridley Project**, a U.K. registered charity that removes ghost nets and protects sea turtles, recorded **601 sea turtles** being entangled in ghost gear near the Maldives, of which **528 were Olive Ridelies** the same species that come in thousands to **Odisha's coasts to nest**.
- A team of marine biologists reviewed on ghost gear from across the world, they found that **over 5,400 marine animals** belonging to **40 different species** were recorded as entangled in ghost gear, or associated with it.
- This analysis also showed a **huge gap in data from the Indian, Southern and Arctic Oceans**, prompting the team to recommend that future studies focus on these areas.



### Global Initiatives to control Ghost Gears:

- To tackle this global issue, **World Animal Protection** founded the **Global Ghost Gear Initiative (GGGI)**, a cross-sectoral alliance committed to driving solutions to the problem of ghost gear worldwide.
- The GGGI works to build evidence, **develop best practices** and inform policies, and catalyze solutions.
- Last year the GGGI supported a project to **remove old crab traps** in McIntyre Bay, British Columbia and launched a Best Practice Framework for the seafood industry and other stakeholders **to prevent and mitigate the impacts of lost fishing gear and marine litter.**
- The **GGGI's strength** lies in the **diversity of its participants** including governments, NGO's, academics and fishing industry leaders with the **goal of reducing the amount of ghost gear in the oceans.**
- "The Global Ghost Gear Initiative (GGGI) has more than 80 industry participants who are driving solutions to the problem of lost and abandoned fishing gear, from removing gear from our oceans to converting recycled nets to skateboards and swimwear.
- The GGGI is a platform where governments and other stakeholders come together to improve the health of marine ecosystems, protect marine animals from harm and safeguard human health and livelihoods."

### Indian initiative to control Ghost Gear:

- Scientists at Kochi's Indian Council of Agricultural Research Central Institute of Fisheries Technology studied ghost nets in **Gujarat, Andhra Pradesh, Kerala and Tamil Nadu.**
- According to the scientists, the government is also currently preparing a **national ghost net management policy.**
- While that would be an extremely welcome and timely move to tackle the growing ghost gear phenomenon, a larger question remains.
- When bigger violations, such as **large vessels fishing** where they are not supposed to, are not checked, there is less possibility that a **policy on the management of ghost nets** would be implemented.

### Conclusion:

- The level of ghost gear has increased in recent years and is likely to grow further as fishing efforts intensify, **creating wide-ranging problems** for the marine environment and costing governments millions of dollars in clean-up expenses.
- India can emulate **innovative solutions** from across the world to tackle the problem of ghost gear.

- More efforts to make the process **more organised** across the **over 7,500 km of India's coasts**, as well as inland water bodies, are the need of the hour.

#### Way Forward:

- **Avoid single-use plastics** – any form of plastic, no matter how small, can cause harm and suffering to marine life like birds, fish and turtles when they eat it or become entangled in it. Bring your own grocery bags, carry a reusable water bottle and skip the straw.
- **Cut looped plastics** – anything that forms a circle, like 6-pack beverage rings, plastic bag handles or packing straps from shipping boxes pose a threat to curious birds, seals and sea lions who can become entangled.
- **Pick up 5 items of trash every time you go to the beach or shore** – if we got a chance to visit a beach or lake, pay back the favour and keep trash out of the bellies of seabirds.
- **Don't release balloons** – after fishing gear, the most common material found entangled on marine life is balloons, especially those released in bunches!
- **Report it if you see an entangled animal or lost fishing gear** – A global network is ready to help. Contact the Department of Fisheries and Oceans to report an entangled animal.
- No matter where you live, we all have a responsibility to look after our precious ocean life.

## 20. SHOULD INDIA HAVE TWO TIME ZONES?

#### Background:

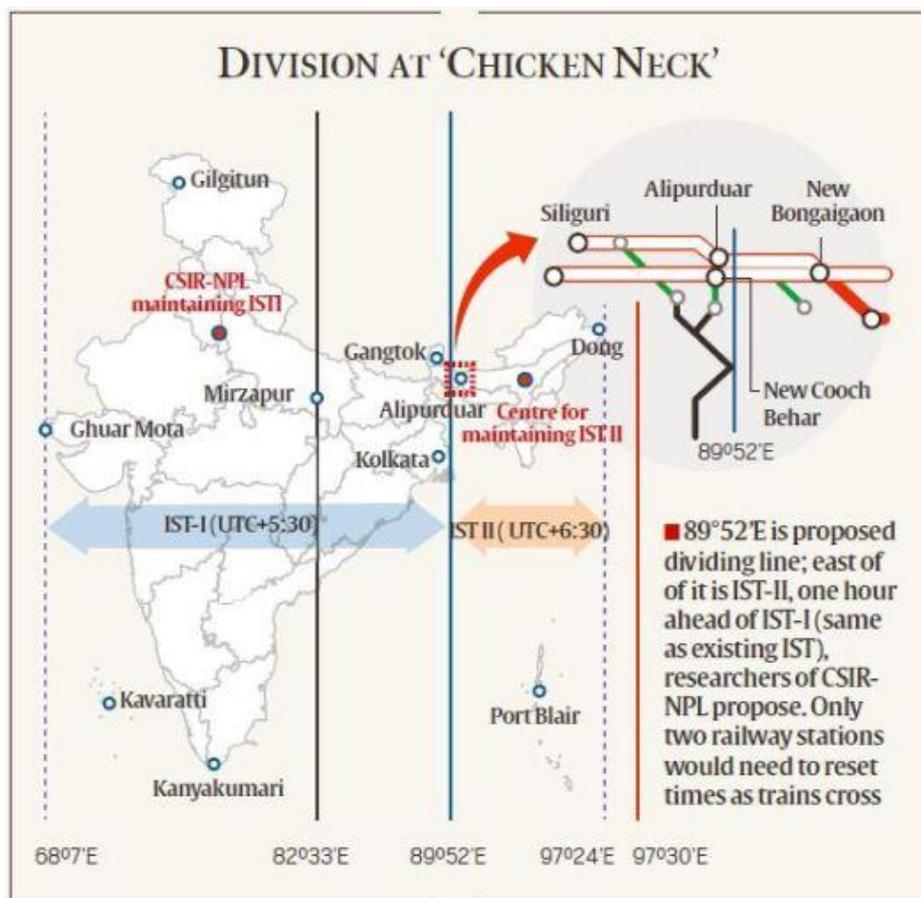
- The time difference between the **westernmost part of India** and the **easternmost point** is approximately **two hours**, the effect of which is that the sun rises and sets much earlier than it does in the rest of the country.
- Most Indians are not particularly worried about Indian Standard Time (IST), except for those who live in the **Northeast where the sun rises around 4 a.m. in summer, and gets dark well before 4 p.m. in winter.**

#### Context: A new report advocating 2 time zones in India

- A proposal for two time zones has come from **India's national timekeeper** itself.
- Scientists at the Council of Scientific & Industrial Research's National Physical Laboratory (**CSIR-NPL**) have now argued that IST should be done away with at the Chicken's Neck.
- There is a request to change the **temporal modalities** of the Indian nation-state from its official time-keeper.

#### Why there is Necessity of Two time zones:

- Over the years, various citizens and political leaders have debated whether India should have **two separate time zones**.
- The demand is based on the **huge difference in daylight times** between the country's longitudinal extremes, and the costs associated with following the same time zone.
- Those arguing against the idea, on the other hand, cite impracticability particularly the **risk of railway accidents**, given the need to reset times at every crossing from one time zone into another.



**Possible Impact of change in time zones:**

- **Northeast India would move an hour ahead**, increasing the region's productive, daylight hours and the country's potential energy savings could amount to a whopping 20 million kWh a year.
- Offices could open sooner after sunrise, and perhaps workers could even savour the last dregs of dusk as they trudge towards home or their desired form of recreation.
- Biomedical research has consistently pointed to **the physical and psychological benefits of aligning circadian (sleep) rhythms** to the sun's rising and setting.

**Problems of different time zones in India:**

- India has a huge population; if the country were divided into **two time zones**, there would be **chaos at the border** between the two zones. It would mean resetting clocks with each crossing of the time zone.
- There is scope for **more dangerous kinds of confusion**.
  - **Railway signals** are not fully automated and many routes have single tracks.
  - Trains may meet with **major accidents** owing to human errors. Just one such accident would wipe out any benefits resulting from different time zones in the country.
- Partitioning the already divided country further into time zones may also have **undesirable political consequences**. Moreover, our research shows that the energy saving from creating two time zones is not particularly large.
- While there is merit in the argument, the **potentially adverse consequences** of introducing a new time zone within the country are many.
- For Instance, Not forgetting the fact that a country like Russia has as many as nine time zones across contiguous territory, having to cope with the zones and to be forced to reset the watch each time you need to cross a domestic line could be complicated.
- With a time difference of one hour in the mornings and in the evenings, there would be **nearly 25% less overlap between office timings in the two zones**. This could be important for banks, offices, industries and multinational companies which need to be constantly interconnected.
- This will be further **detrimental to productivity** and to the interests of the eastern region.
- There is already a **sense of alienation** between the relatively prosperous and industrialised western zone and the less developed eastern zone. The people in the Northeast sense a distance from the mainland and a separateness in clock time may accentuate it.
- Having a **separate time zone for the eastern region** will provide no energy or other benefits to the rest of the country.
- Moreover, India will continue to be in off-set time zones, five and a half hours in the west and six and a half in the eastern region ahead of.

**Hurdles in implementation:**

- A long-standing argument against doing away with IST has been it would **confuse the railway infrastructure**.
- In a country with so many diversities to amalgamate into a proverbial unity, asking the people of the Northeast **to wake up an hour earlier** might lead to yet another point of difference.

**Alternative to the present proposal:**

- One proposal is to introduce neither time zones nor DST, but **to advance IST by half an hour to being six hours ahead of GMT**, once and permanently.
- Such a suggestion has been made before, but until now no one has computed the energy savings that would accrue as a result using a correct model and dependable data.
- This proposal of **advancing IST by half an hour** avoids the problems apprehended in the other two proposals (of time zones and DST) but **provides maximum energy saving during evening hours** when the utilities fail to supply continuous power.

**Conclusion:**

- It is now time to initiate a **process of consultation** to consider all sides of the question afresh.
- What might be seriously examined is a proposal of some researchers, including those from the National Institute of Advanced Studies in Bangalore and Scientists at the Council of Scientific & Industrial Research's National Physical Laboratory (CSIR-NPL), to set the **IST forward by half an hour** so that it is six hours ahead of Universal Coordinated Time.

- This will mean advancing the **point of reckoning at 82.5 degree East to 90 degree East**, which will fall at a longitude along the **West Bengal-Assam border**.
- That should go some way in **meeting Assam's demand**, and help avoid potential grievances from north western India about corresponding inconveniences that an **advancing by one full hour** could entail for it in terms of late sunrise time.

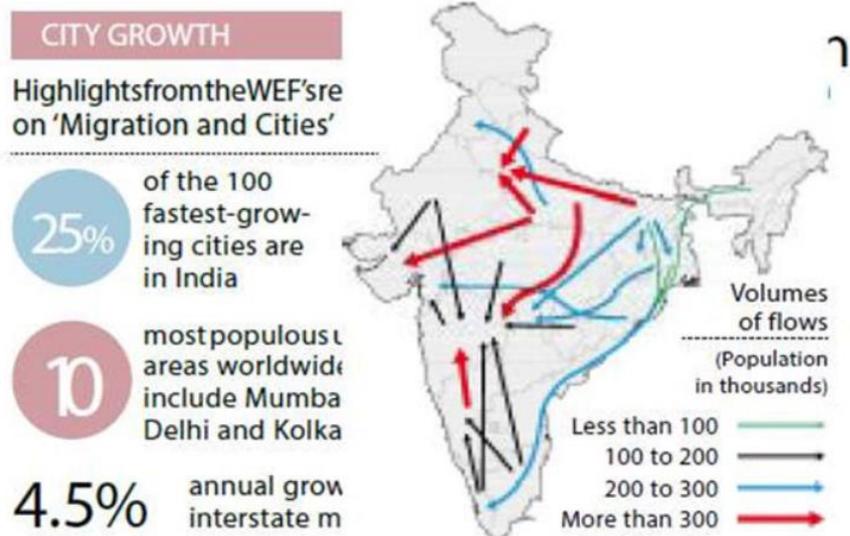
## 21. LIP SERVICE TO LABOUR RIGHTS

### Introduction:

- According to the **State of World Population report**, more than half of the world's population lives in urban areas, and the number is steadily growing every year.
- India, where the majority of the population is still dependent on agriculture, is no exception to this trend. As per the census, the **level of urbanization in India** has **increased from 27.81% in 2001 to 31.16% in 2011**.
- Urbanization in India is a consequence of **demographic explosion and poverty-induced rural-urban migration**.

### Recent data and Statistics:

- **Gujarat** is one of the **top States in India** that receive migrant workers, largely temporary and seasonal, on a large scale.
- In Gujarat, they work in **unskilled or semi-skilled jobs** in a wide range of activities such as in agriculture, brick kilns and construction work, salt pans and domestic work, petty services and trades (food and street vending).
- Some workers may get in semi-skilled works like in textiles and garments, embroidery and diamond cutting and polishing, small engineering and electronics and also small and big factories.
- These workers are from **Rajasthan, Madhya Pradesh, Maharashtra** and even from as far as **Bihar, Uttar Pradesh, Andhra Pradesh, Odisha, Jharkhand, Chhattisgarh, Assam and Karnataka**.



### How this Internal Migration has been taken place:

- Employers send contractors to distant unexplored places to gather labour at the lowest possible wage rate.
- For example,
- A new **township in Gujarat** being promoted by a large industrialist is to be built with **workers from Assam**.
- Surprisingly, the **Gujarat government has no data on/estimates of migrant workers** coming to Gujarat. Informally, the figures are estimated to be **between 40 lakh to one crore**.

### Exploitative and Pathetic conditions for Migrant Workers:

- **Segmenting the labour market** and **creating a separate labour market** for migrant workers who are easy to exploit has been a **common strategy** of employers across India.
- The **pathetic conditions migrant workers** face has been widely documented. They earn low wages, work very long hours without any overtime benefits, and are almost without any leave or social protection.
- Lakhs of unskilled and migrant workers **live on worksites in makeshift huts** (usually made of tin sheets) or on roads, slums and in illegal settlements **not served by municipalities**.
- They are neither able to save much to improve their conditions back in their home States nor save enough to live comfortably in Gujarat. They go back home only once or twice to celebrate festivals.
- Semi-skilled workers with some education and skills (such as those in diamond cutting and polishing units, power looms and factories) get slightly higher wages and earn some leave.

- However, these workers are also **exploited in multiple ways** and are **mostly unprotected**. Factory owners, employers and traders are only too happy with such a situation as they earn huge profits from wage labour exploitation.

#### Resentment in The Local Workforce:

- **Local workers resent** the presence of migrant workers. They feel that their jobs are taken away by them. The migrants work for lower wages.
- Overall, there is a feeling among the native workers that the factories/ establishments are dependent on migrant workers, so as to earn more profits.
- Many migrant workers have now **rushed out to their home States** out of fear despite several local people having been taken into custody on the charge of inciting **violence against migrant workers**.
- There have been reports of an estimated **60,000 to more than a lakh workers leaving the State**. Those who have stayed back now live under constant fear.

#### Rights and Entitlements of Migrant Workers: Only on paper

- Under the **Inter-State Migrant Workmen Act** and **other labour laws** (for unorganised workers), migrant workers in Gujarat are legally entitled to all their basic labour rights.
- **These include** minimum wages, regular wage payment, regular working hours and overtime payment, and decent working and living conditions which include taking care of the health and education of their children.
- Tracking internal migrants **remains the primary hurdle** to successful transitions. Migrants live precariously, lacking vital identification required to access everything from food subsidies to telephone service.
- Under the same Act, the governments of the States from where **migrant workforce originate** are expected to issue licences to contractors who take workers away, register such workers and also monitor their working and living conditions in other States.
- But most State governments remain indifferent to these laws. Gujarat has taken a few steps but these are far from adequate.
- In the political sphere, there has been hardly any mention about **protecting the legal rights of migrant workers in India**.
- The **political impulse** has been to maintain status quo the continuation of the situation where migrant workers are exploited.

#### Way Forward:

- The **real solution** to this issue would be to **enforce all relevant labour laws for migrant workers** so that segmentation of the labour market becomes weak, and workers (local and migrant) get a **fair and equal deal** in the labour market.
- This will also **weaken unfair competition** between local and migrant labour and enable migrant workers either to settle down in the place of destination or to go back home and make a good living there.
- State and Central governments should genuinely take interest in **improving the conditions of workers in the economy**.
- Unlocking **India's true economic potential** lies in ensuring that more of its workers find opportunities internally.
- To achieve that, the government needs to recognize that **internal migrants** may play a bigger role in **India's economic future** than its more celebrated emigrants abroad.

## 22. RIPE FOR PRISON REFORM

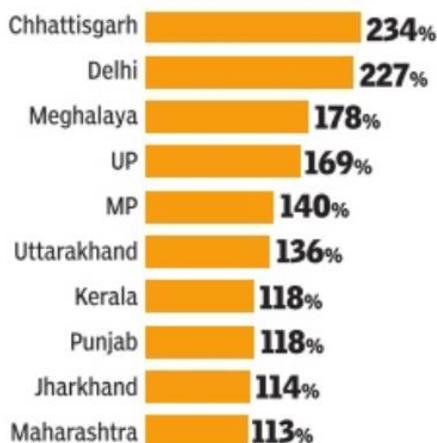
#### Context:

- In an acknowledgment that the **more than a century-old system of prisons in India** needs repair.
- In this context, Supreme Court, formed a **committee on prison reforms**. Headed by former Supreme Court judge, **Justice Amitava Roy**, it is to look into the **entire gamut of reforms to the prison system**.
- But this is not the first time that such a body is being set up, examples being the **Justice A.N. Mulla committee** and the **Justice Krishna Iyer committee on women prisoners (both in the 1980s)**.
- While marginal reforms have taken place, these have not been enough to ensure that prison conditions are in tune with human rights norms.

## No wonder India's prisons are so overcrowded

Most prisons in India are overcrowded, avg occupancy rate in Indian prisons is 114%

### Top 10 overcrowded prisons



Undertrials are those awaiting trial or whose trials were still ongoing, and who have not been convicted

## Poor state of legal aid

The home ministry agrees that only **"the poor and indigent... have continued to languish as under-trials"** and notes **"the lack of adequate legal aid"** is the principal reason for "continued detention ... where bail is a matter of right" Although an accused in criminal case has the right to free legal aid, but here, too, a sorry picture...

### Among states with largest undertrial populations...

Haryana has highest number of legal aid lawyers, but avg prison visits by them is 0.22 times a month...



## What is Sec 436A?

It says that where an undertrial has been detained for a period equal to half of the maximum sentence specified for the offence for which he/she is charged, they are eligible for release on personal bond, with or without sureties

But despite home ministry's guidelines, many prison officials across states are still unaware of how section 436A CrPC is to be applied

\*Amnesty International India filed nearly 3,000 RTI applications to gather the data for the study

## What should be the Objective of Punishment: Punish or reform?

- The **crux of the debate: incarceration** in any form is uncivilised, especially when it is so long-drawn-out, and when the **objective of criminal punishment** should be one of reform rather than wreaking vengeance on a perpetrator of crime.
- The objective of the criminal punishment is **to reform or vengeance** on the perpetrator of crime is to be made clear.
- It is also about the **unresolved conflict in attitudes** about incarceration **punishment or reform** which also explains the halfway jail reforms agenda seen in many countries.
- The **terms of reference for the new committee** are omnibus and seem ambitious. The committee formation comes at a time when controversy surrounds the Tamil Nadu government's recommendation that the seven convicts in the assassination, in 1991, of former Prime Minister Rajiv Gandhi be released.
- The plea of the petitioners is that **however heinous the crime**, the penalty imposed they have served 27 years was beyond endurance.

## Reasons for Overcrowding in Jails:

- In India, the publication, **Prison Statistics India**, brought out by the **National Crime Records Bureau** will provide food for thought for the Justice Roy Committee.
- In 2015, there were nearly **4.2 lakh inmates** in 1,401 facilities, with an average **occupancy rate of 114% in most**.
- **About 67% of total inmates** were undertrials, a commentary on the speed and efficiency of India's criminal justice system.
- **Occupancy by under trials– 67% of the people** in Indian jails are **under trials** which is extremely high by international standards like it is **11% in UK, 20% in US and 29% in France**.
- Males at 400,855 make up 95.8% of prisoners while females at 17,681 represent 4.2%.
- **Judicial backlogs**-Due to **1 crore cases (2016) pending** in various courts of the country, jails across the country will remain overcrowded in the absence of any effective systemic intervention.
- **Inadequate prison capacity**- Most Indian prisons were built in the colonial era, are in constant need of repair and part of them are uninhabitable for long periods.
- **Restricted access to legal representatives**-Many inmates are unaware of their rights and **cannot afford legal aid**, limited ability to communicate with lawyers from within the jail premises hampers their ability to defend themselves.

- **Problems in acquiring bail** – For poor and marginalized it is also difficult to get bail which leaves them **no option but to stay in jails** and wait for courts final order.
- **Unnecessary arrests:** Over **60 per cent of arrests** were unnecessary and such arrests accounted for **3 per cent of jail expenditure**.

#### Prison Reforms are not coming for Implementation:

- The question often asked by governments is, in these days of extreme fiscal stress, why should **state resources be diverted** to a 'negative exercise, whose benefits are dubious'?
- There are those who believe that if you keep **improving prison conditions**, there is likely to be an attendant **impact on the incidence of crime**.
- This accounts for the reluctance of many criminal justice administrators to employ or enlarge non-prison alternatives such as **community service**.
- The offshoot of all this is growing numbers of prisoners and the woeful incapacity of governments to build more and larger prisons.
- This is why jail officials are often asked to 'somehow manage' **with existing modest facilities**.

#### Packed to the gills in jails:

- The **data on prison overcrowding** are frightening. Except in parts of Europe, where crime is still low or at acceptable levels, overcrowding is rampant.
- In the U.S., for example, which has a humongous crime problem, complicated by gun violence and a strident racist overtone in combating crime, the prison system is creaking under the stress of numbers.
- There is an obvious **poverty of ideas in justice administration**. While public officials and social workers are agreed upon the need to reduce overcrowding, there is hardly any convergence on how to go about this delicate exercise.

#### Handling white collar crimes:

- There is a popular view that in order to reduce prison populations, **proven non-violent offenders could be dealt with differently**.
- White collar crime has assumed monstrous proportions but there is no reason why we should continue to lock up offenders instead of merely depriving them of their illegal gains.
- Devising swift processes of **attachment of properties** and **freezing of bank accounts** are alternatives to a jail term.
- The argument that not all gains made by an economic offender are open is not convincing enough to opt for incarceration over punitive material penalties.
- In India, progress has been made in **freezing 'benami' holdings of major offenders** even though it may not be a 100% effective step of cleaning up.
- But these are the first steps towards making **economic crimes unaffordable** and unattractive for the average offender.

#### Prison officials and political will:

- Another complaint against prisons is the **brutality and venality of prison officials**, again common across the world. A solution will be a point to ponder over for the Justice Roy Committee.
- Finally, **improving prison conditions has no political leverage**. Just as humane prisons do not win votes, the bad ones do not lose votes for any political party.
- As long as there are no stakes here for lawmakers, one can hardly hope for model prisons, where inmates are accommodated with due regard to their basic human needs and are handled with dignity.

#### Conclusion:

- ❖ More than a century-old system of prisons in India **needs an urgent repair**.
- ❖ Overcrowding, more number of undertrials than convicted prisoners, delayed justice, inhumane conditions, brutality and lack of basic human need facilities are some of the **major issues** in Indian prisons.
- ❖ **Justice Amitava Roy committee is a ray of hope in the direction of prison reforms, but without political reforms in India's criminal justice system are impossible**.

## 23. TURF BATTLE: ON INDEPENDENT PAYMENTS REGULATOR

### Context:

- The Reserve Bank of India (RBI) and the Union government are once again at loggerheads over the **legitimate extent of their powers**.
- The central bank made public its reservations against the government's plans to **set up an independent payment's regulator**, potentially setting the stage for a regulatory turf war.
- The Reserve Bank of India (RBI) has opposed a proposal to set up a **separate and independent regulator** for the **payments industry** in the country.

Recommendations of the Inter-ministerial Committee		Dissent by RBI	
1. Keep Payments Regulatory Board outside control of RBI	3. Deputy chairman nominated by RBI not below the rank of ED	1. Keep payments regulation within Reserve Bank	3. Have a seven-member committee: 3 members nominated by the govt and 3 from RBI, plus RBI guv as chairman with a casting vote
2. Appoint a chairman as per govt recommendations	4. Make non-banks a bigger stakeholder in the process	2. Keep RBI guv as chairman of PRB	



### Payment and Settlement Systems (PSS) Act, 2007:

- The PSS Act, 2007 provides for the **regulation and supervision of payment systems** in India and designates the **Reserve Bank of India** (Reserve Bank) as the authority for that purpose and all related matters.
- The Reserve Bank is authorized under the Act to constitute a Committee of its Central Board known as the **Board for Regulation and Supervision of Payment and Settlement Systems (BPSS)**, to exercise its powers and perform its functions and discharge its duties under this statute.

### Proposed Amendments to PSS Act, 2007: Issue of Concern:

- The fact that the RBI has made public its dissent against the Union government's idea, suggests that the central bank has serious problems with **the dilution of its current powers over the financial sector**.
- In a strongly worded dissent note against the inter-ministerial committee for the finalisation of **amendments to the Payment and Settlement Systems Act, 2007**, published, the central bank observed that it would prefer the **Payments Regulatory Board** to function under the **purview of the RBI Governor**.
- RBI viewed that "There is no case of having a regulator for payment systems **outside the RBI**".

### RBI's Supporting Views:

- ✚ In support of its stance, the RBI stated that the **activities of payments banks** come well within the purview of the **traditional banking system**, which the **central bank** oversees as the **overarching financial regulator**.
- ✚ So, according to this logic, it might make better sense to have the RBI oversee the activities of payments banks as well instead of **creating a brand new regulator for the growing industry**.
- ✚ RBI pinpointed that "Regulation of the **banking systems** and **payment system** by the **same regulator provides synergy**".
- ✚ The RBI, in essence, is pointing to the **interconnection between the payments industry and the banking system** to back the extension of its regulatory powers.
- ✚ The RBI's case makes good sense when seen from the perspective of the cost of regulatory compliance.
- As stated above, there is **definite overlapping** between the current **regulatory powers of the RBI** and the **proposed regulations** for the payments industry.

### Government Proposal Arguments:

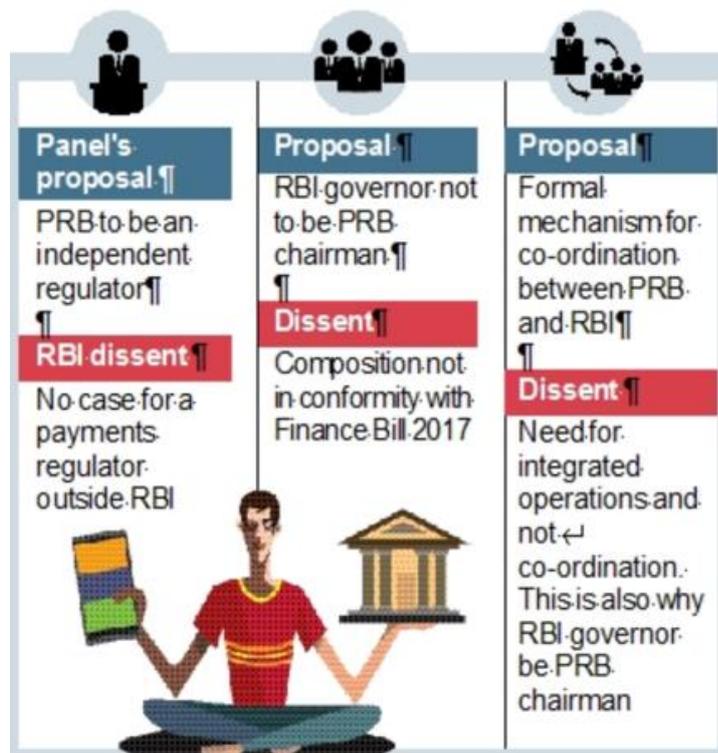
- It will foster **competition** and **consumer protection**.
- It will lead to **systemic stability and resilience** in the payments sector.
- It is the era of **digital payments** and it is not possible to foster competition, when it is under the purview of RBI.
- **Dynamic decisions** are required for the growth of sunrise sector.

**Conclusion:**

- ❖ The RBI has argued that the **payment system is bank-dominated in India**. Regulation of the banking systems and payment system by the **same regulator provides synergy** and inspires **public confidence** in the payment instruments.
- ❖ Regulation of the payment system by the central bank is the dominant **international model for stability** consideration.
- ❖ Thus, having the regulation and supervision over Payment and Settlement systems with the central bank will ensure holistic benefits.

**Way Forward:**

- ✓ According to a recent report by **Credit Suisse**, **cash share in India** is still estimated at **70 per cent** in value terms and digital payments currently aggregate only \$200 billion, compared with \$5-trillion mobile payments in China.
- ✓ **“Payment integration** into popular apps in India will drive the digital payment market in India to around **\$1 trillion over the next five years**.
- ✓ A **unified regulator** can thus help in lowering the compliance costs and enabling the seamless implementation of rules.
- ✓ Further, there is the real risk that a **brand-new regulator** may be unable to match the expertise of the RBI in carrying out necessary regulatory duties.
- ✓ So, it makes better sense to have the RBI take charge of the rapidly growing payments industry which can **ill-afford regulatory errors** at this point.
- ✓ However, the RBI’s demand for the **centralisation of regulatory powers** also brings with it the need for exercising a **greater degree of responsibility**.
- ✓ At a time when there are **increasing risks to the stability** of the **domestic financial system**, both the government and the RBI must look to **work together** to tackle these risks instead of battling over regulatory powers.



## 24. THINK SMALL: DECENTRALISED SLUDGE MANAGEMENT SYSTEMS

**Introduction:**

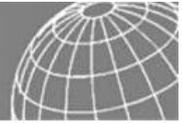
- The nationwide sanitation movement of **Swachh Bharat Abhiyan** has been successful in not just **eradicating open defecation** from numerous towns and villages across India, but is also **creating a national consciousness** in terms of sanitation and cleanliness.
- But the mere task of building toilets will do India no good, unless a **National policy for treating sanitation waste** is adopted at the earliest.
- **Untreated sanitary waste** has been dumped recklessly in our rivers and lakes for years, resulting in rivers like Ganga and Yamuna facing severe pollution crisis.

**Existing Situation in India:**

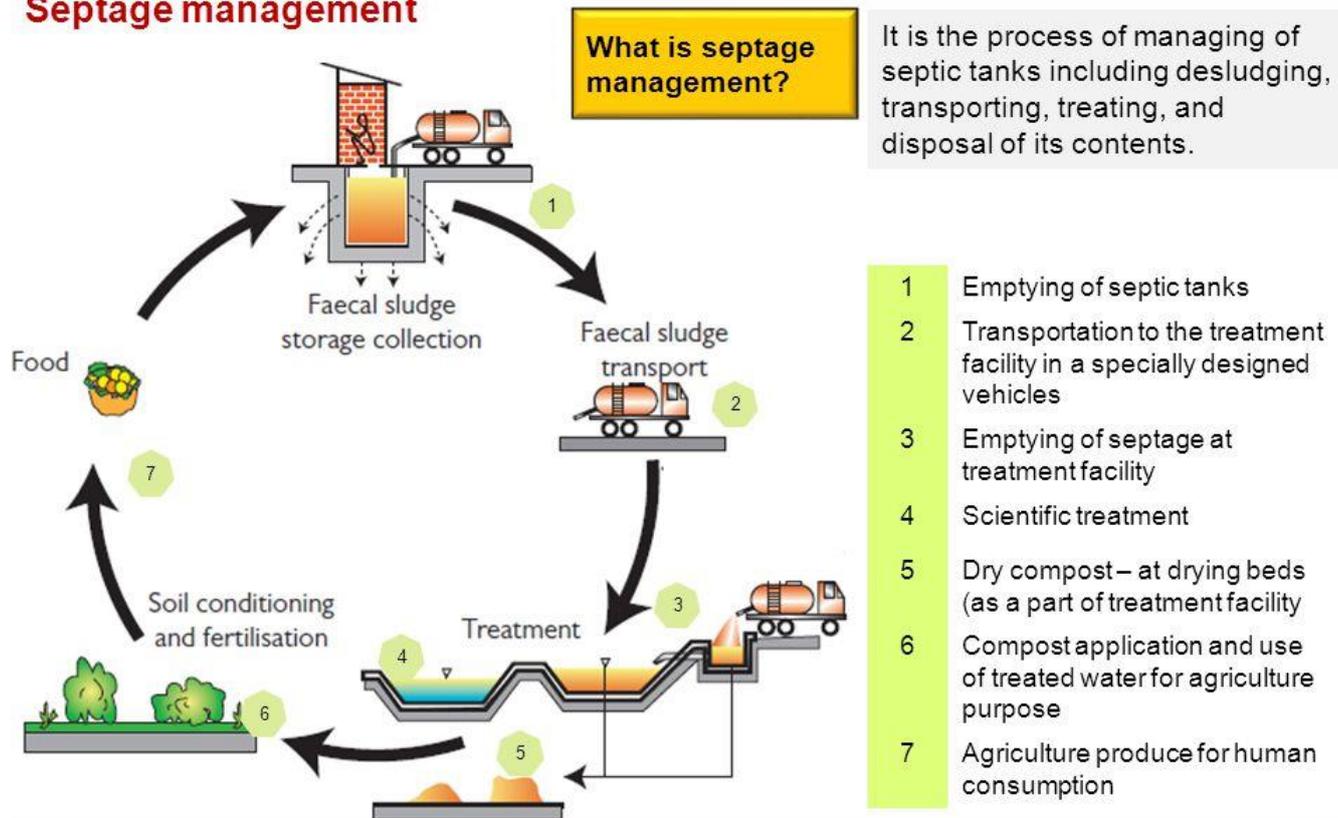
- **Treatment capacity** is available for **only 37 per cent of the 62,000 million litres of sewage generated** in urban India daily, thus creating a wide gap between sewage generated and treated.
- **Untreated sewage** is dumped into rivers or lakes, thus polluting the environment even more.
- The **urban metros in India** have a **planned sewerage network** with underground pipelines, pumping stations and treatment plants.
- **India's 7,000 smaller urban towns** do not have any existing sewerage system since the amount of financial expenditure, skilled operators and electro-mechanical maintenance required is unlikely to be implemented anytime soon. **Nearly 62.5 per cent of wastewater in urban India receives partial or no treatment.**

giz

## How to use a CSP as a tool for urban development? – M3: Understand key issues of urban sanitation



### Septage management



#### Recent studies shows the Broken Links:

- **Bad sanitation** is India's worst-kept secret, but recent data from Uttar Pradesh show that in spite of working in mission mode to expand sanitation, **87% of faecal sludge expelled from toilets in urban areas is untreated.**
- The **study in U.P.** conducted by the **Centre for Science and Environment** has now exposed broken links, of faecal sludge and septage being collected from household tanks and simply discharged into drains, open land and wetlands.
- State support for improved housing and planned development has never been strong, and the National Urban Sanitation Policy of 2008 has not changed that significantly.
- At the national scale, a **United Nations report of 2015** estimates that **65,000 tonnes of untreated faeces is introduced into the environment in India annually.**
- The Swachh Bharat Abhiyan promised a major shift, but it has focussed more on the basic requirement of household and community toilets in rural and urban areas.

#### What Will be the Way the State and Central Governments must follow?

- The problem of the waste not being contained, collected without manual labour, transported and treated safely is becoming graver.
- It is now time for a **new approach**. This has to be **decentralised** and different from the strategy being used to clean the Ganga, for which the government announced an outlay of ₹20,000 crore in 2015.
- **That strategy relies on large sewage treatment plants for riverside cities and towns.**
- It is welcome that the CSE study is being followed up with a mapping exercise on the flow of faecal waste streams in individual cities.
- The results for Varanasi, Allahabad and Aligarh in particular should be revealing, since the **collection efficiency for sludge in these cities ranges from just 10% to 30%.**
- One immediate intervention needed is the **creation of an inter-departmental task force** to identify land to build small treatment systems for sludge, and to provide easily accessible solutions to houses that are currently discharging waste into open drains.
- A large State such as Uttar Pradesh provides the opportunity to demonstrate **commitment to policy.**

- Given the pace at which toilets are being constructed in urban India under the Swachh Bharat Mission, the introduction of policies and programmes in sludge management in timely and will help in the management of faecal sludge in urban India.

#### Conclusion:

- Viewed against the **2030 goal to achieve clean water and sanitation for all** under the UN Sustainable Development Agenda, this depressing statistic shows how much work remains to be done.
- The **National Urban Faecal Sludge and Septage Management (FSSM) Policy** is a welcome move on behalf of the Ministry of Urban Development. The policy will lay stress on the **setting up of faecal sewage treatment plants** in cities and urban local bodies, as well as address the restructuring of sewerage systems in urban India.
- FSSM also takes care of a **policy lacuna** at the national level to address gaps in urban sanitation and lays down a clear vision and objectives to deal with faecal sludge and septage.

#### Way Forward:

- All aspects of the business of sanitation need reform if India is to **meet Goal Number 6 of the Sustainable Development Goals with egalitarian policies. Decentralised sludge management systems** would bring improvement in the environment and reduces the disease burden because of insanitary conditions.
- Mapping of the flow of faecal waste streams in individual cities is required. **Inter-departmental task forces** are needed to identify land for building small treatment systems for sludge.
- Manual scavengers continue to be employed in violation of the law to clean septic tanks in some places and urgent mechanisation is to be done.
- The business of **emptying faecal material** using tanker trucks needs to be **professionalised and de-stigmatised without the use of manual labour.**
- By implementing the above lines in Letter and Spirit, **Success here can transform lives.**

## 25. OUR TIME BEGINS NOW

#### Introduction: About Achieving INDCs of Individual Countries:

- Even at the time of its signing in 2015, it was clear that the **Paris Agreement on climate change** would not be enough to **avoid global warming of 1.5° C over pre-industrial temperatures.**
- In fact, early analyses revealed that the **collective effect of Nationally Determined Contributions (NDCs)** would result in **3-5° C of warming.** More recently, there has been mounting pressure on India to raise its pledges further.
- The Intergovernmental Panel on Climate Change (IPCC) report on 1.5° C has come at a time when **there are multiple alarms for India.**
- Another **study in Nature Climate Change** identifies India as the country with the most expected damage from rising levels of carbon dioxide.

#### How should India respond?

- India's NDC** is already ambitious and it has made decisive changes in its **energy sector.**
- Meanwhile, the U.S. has pulled out of the climate treaty, and the support of Australia and Brazil teeters on the outcome of their respective elections. Some countries are also doing less than they claim.
- According to **Kevin Anderson at the University of Manchester**, with aviation, shipping and trade counted, the U.K. has made no reduction to its greenhouse gas emissions.

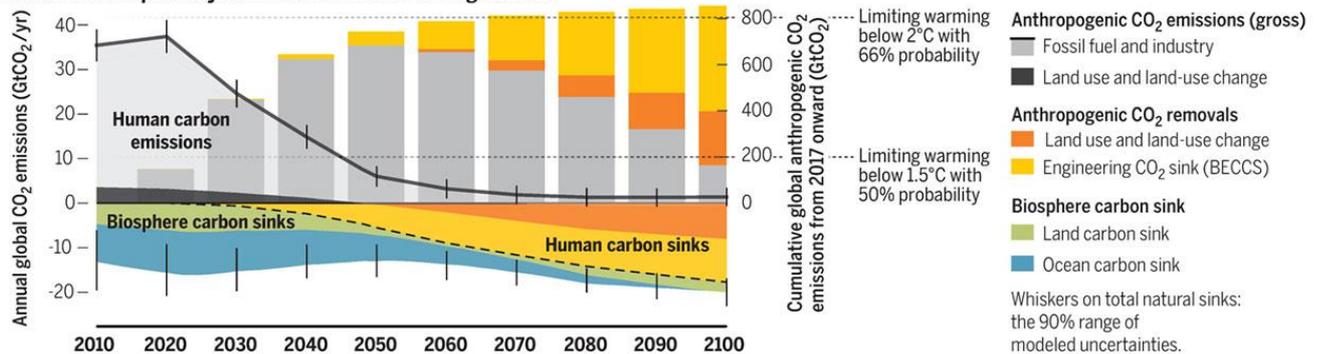
#### For India, Climate Change is a socio-economic challenge:

- India has two complex and inter-related problems.**
  - The first is **to bring a vast population out of poverty** and into decent lives.
  - The second is to do this while dealing responsibly with the **global carbon challenge** and **building resilience to climate change.**
- While India is often mentioned along with China in climate-related discussions as a large emerging economy, the two are very different.
  - India ranks 130 among nations in the Human Development Index, and China ranks 86.**
  - In spite of remarkable recent improvements, India still has **364 million living in multidimensional poverty.**
  - Nearly a third (27.5%) are multidimensionally poor and about a fifth (19.1%) are vulnerable to becoming poor.**

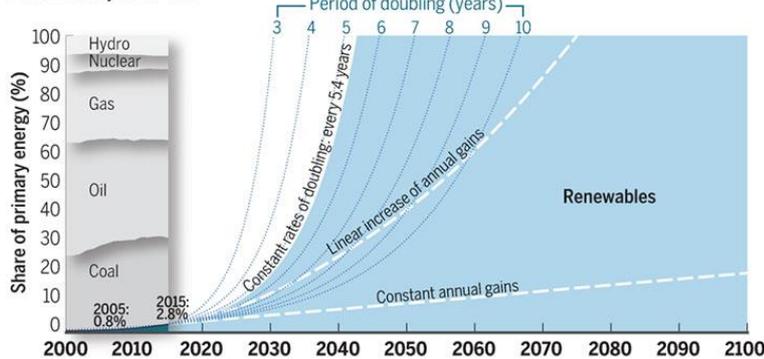
- Almost half the country is therefore at high risk from events such as loss of a job or ill health of a family member.
- Combined with damage from a severe cyclone, flood or drought, each subsequent shock will have a multiplier effect on hundreds of millions, potentially pushing them deeper into poverty.
- Add to this the current rural distress and the **large youth bulge** with few job prospects, and the **country is in dire straits**.
- Recent events, show that we cannot trade off forests, urban water bodies, riverine ecosystems, waste management or groundwater as these come back to bite us as **floods, landslides, droughts and infectious disease**.
- It is clear that past development frameworks have not improved well-being across social strata. Instead, evidence indicates that **economic growth has gone hand-in-hand with rising inequality** and the creation of a small but powerful class of the super-rich.

## A global carbon law and roadmap to make Paris goals a reality

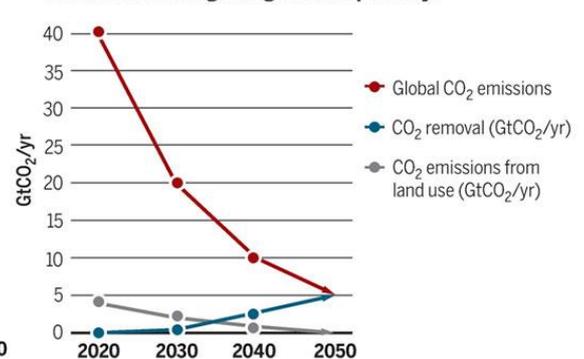
### Decarbonization pathway consistent with the Paris agreement



### Fossil fuel phase out



### Global carbon law guiding decadal pathways



### What will be the Need of the hour?

- To deal with these complex challenges it is needed to **deepen and expand** India's commitment to the **Sustainable Development Goals (SDGs)**.
- Only the transformative and cross-scale changes can realise the **synergies of meeting SDGs**, reducing greenhouse gas emissions and adapting to a changing climate.

### Few Instances in Infrastructure and Affordable Clean Energy:

- The **Bureau of Energy Efficiency** showed how government 'nudges' are made effective through appliance labelling and large-scale procurement of efficient devices.
- In the **building and cement industry**, innovation around housing and new materials, including natural fibre composites, could make far-reaching changes in infrastructure through low-carbon modular technologies.
- India expects to reach its **ambitious solar target of 100 GW capacity by 2022** primarily through large centralised solar power plants, but these require **significant amounts of land, water and evacuation infrastructure** and support from mega-corporations.
- Instead, as some States have shown, **renewable-based microgrids** can become an important feature of electricity policy.
- **Jharkhand**, which has **249 remote villages** powered by **solar microgrids**, is now considering their **use even in villages** that are already grid connected.

- In transport and urbanisation, the challenge is **to create isotropic communities** in the areas of the peri-urban, the rapidly expanding hinterland, which would have to be designed around not cars but walking, cycling and sustainable neighbourhood vehicles.
- Work and industry would also have to **focus on the small and medium scale** of about 300 employees and modest capital investments, which **reduce the risk of speculation and jobless growth**.

#### In Primary activities such as Agriculture:

- **Sustainable approaches to land** are evident in cases such as forest conservation in **Mendha-Lekha village in Maharashtra** and community delivery of public services in **Nagaland**.
- These and several other instances are documented in **initiatives such as Vikalp Sangam**.
- Some research groups have recognised that **agro-ecology methods** are best suited for increasing crop yield, raising profits, trapping soil carbon, reducing dependence on fertilisers and pesticides.
- Successful models are already effective on small scales in many States.
- **Andhra Pradesh** is attempting to replicate widely one such **approach, Zero Budget Natural Farming, to all its farmers by 2024** with an expected savings of 2 million tonnes of carbon dioxide per year.
- If similar methods were used for the entire country, the savings would be substantial.

#### Conclusion:

- ❖ In the near future, entrepreneurs could make **use of rapidly lowering storage costs** to build **decentralised, neighbourhood-scale micro-utilities**, managed by locally owned enterprises and cooperatives.
- ❖ With modern power electronics and innovations in **hybrid waste to energy, water recycling and community gardens** could be integrated as standalone modules that are connected to larger grids.

#### Putting plans into action:

- ❖ Policymakers, with inputs from academia, community workers and the public, could then work on how these would be repeated in other contexts keeping climate impacts in mind.
- ❖ **Large investments are needed** to make the transitions in each sector that would take the country to a **near zero-carbon economy**.
- ❖ But given the shortage of external support and the **need for rapid deployment**, India will not be able to rely entirely on external funds. Some of this could instead be financed through a **'luxury' carbon tax** that curbs non-essential consumption.

#### Way Forward:

- ✓ Further, "scaling up" may not be the correct way for size and diversity of India rather, relevant **modifications and local and institutional innovation** will be more appropriate.
- ✓ Political pressure and activism across the globe may soon turn the tide in other countries, but India needs to begin now with its **enormous untapped successes**. We cannot be pressured from outside, but need to change from within.
- ✓ India has a large number of successful examples of **transformative innovation** around **energy production and access, land, livelihoods and climate resilience** will be the way forward.

## 26. DEFUSING TENSIONS: ON CBI FEUD

#### Context:

- The recent happenings at the CBI are **unprecedented**. Never has the premier investigating agency of the country been in similar crisis. These events will have **ramifications on the dignity, discipline and image of CBI**.
- The question that should be troubling us is **how are things so opaque within our investigative agency?**
- With serious charges and counter-charges flying thick and fast, the ordinary citizen may be left wondering as to what really goes on behind closed doors at the CBI.

#### About CBI:

- The Central Bureau of Investigation (CBI) is the **premier investigating agency** of India. Operating under the jurisdiction of the **Ministry of Personnel, Public Grievances and Pensions**, the CBI is headed by the Director. The agency has been known to investigate several **economic crimes, special crimes, cases of corruption and other high-profile cases**.

- India's first agency to **investigate corruption**, the **Special Police Establishment**, was set up in 1941, six years before independence from British rule **to probe bribery and corruption** in the country during World War II.
- In 1946, it was brought under the **Home Department** and its remit was expanded to **investigate corruption** in central and state governments under the **Delhi Special Police Establishment Act**.
- The **special police force** became the **Central Bureau of Investigation** after the Home Ministry, which is **in charge of domestic security**, decided to expand its powers and change its name in 1963.
- The CBI is subject to **three ministries of the Government of India and Two Constitutional bodies:-**
  - Ministry of Home Affairs: Cadre Clearance
  - DoPT: Administration, Budget and Induction of non IPS officers
  - Union Public Service Commission: Officers of and above the rank of Deputy SPECIES
  - Law and Justice Ministry: Public prosecutors
  - Central Vigilance Commission: Anti-corruption cases.

## THE TAINT WITHIN



■ In April 2017, the CBI registered a corruption case against its former director Ranjit Sinha over allegations of abuse of authority to scuttle inquiries, investigations and prosecutions in cases pertaining to the allocation of coal blocks

■ Eighteen departmental cases against Group A CBI officers; eight of these are pending for over four years

■ Eleven departmental cases against Group B and C officials, three of these have been pending for more than four years

**1,328** posts are lying vacant in the investigative agency



■ Two months prior to this, the CBI had registered a corruption case against another former director, A.P. Singh

## THE CBI'S STRUCTURE



### Present Issue went to SC: Supreme court orders CVC To Enquire Against Alok Verma:

- The Supreme Court ordered Central Vigilance Commission (CVC) to complete its ongoing inquiry against exiled CBI Director Alok Verma in two weeks.
- The **CVC inquiry** will be conducted under the **supervision** of Former Apex Court judge, **Justice A.K.Patnaik**.
- Mr.Nageswara Rao will take care of **only routine tasks** to keep **the CBI functioning**. He is barred from taking any major or policy decisions.
- All the decisions taken by Mr. Rao (as a Director of CBI) "from October 23 up to this hour" have come **under scanner of the Supreme Court**. The Court asked the list of all decisions taken by Mr. Rao to be placed before the Bench on November 12 in a **sealed cover**.

### The Crisis Is Not About CBI, It's About the Rule of Law:

- It is perhaps futile to lament that the **politicisation of the Central Bureau of Investigation (CBI)** has been a work in progress for years and that the midnight coup was only its latest manifestation

- But this is not about two IPS officers; it is not even about the CBI or its presumed image or its subverted autonomy, It is about the **future of the rule of law.**
- Its played a **pivotal role in criminal justice delivery** as highlighted in tough cases like Satyam scam investigation , Bhanvari Devi Murder etc. However myriad of responsibilities over categories like Corruption & fraud , economic crimes , special crimes including terrorist attacks has overburdened it and reduced its efficiency.
- **Various recommendation** has been made in the regard of **reforming CBI** but none of them have implemented so far such as:
  - **L.P singh committee** has recommended the enactment of comprehensive central legislation for **self sufficient statutory charter** of duties and functions.
  - **Parliamentary standing committee (2007)** recommended that a separate act should be promulgated in tune with requirement with time to **ensure credibility and impartiality.**

#### What will be the Way Forward?

- **Rule of law is much more than a set of interlocking procedures and principles;** it is a sense of **shared confidence among citizens** and other constitutional stakeholders that values of justness and fairness are not subject to the whims and fancies of the rulers of the day.
  - The first reform is to ensure that **CBI operates under a formal, modern legal framework** that has been written for a contemporary investigative agency.
  - A **new CBI Act** should be promulgated that ensures the **autonomy of CBI** while at the same time **improving the quality of supervision.**
  - The **Lokpal Act** already calls for a **three-member committee** made up of the prime minister, the leader of the opposition and the chief justice of the Supreme Court to select the director. However, not enough has been done to administratively protect CBI from political interference. For this to happen, the **new Act must specify criminal culpability for government interference.**
  - One of the demands that has been before Supreme Court, and in line with **international best practices**, is for the CBI to develop its **own dedicated cadre of officers** who are not bothered about deputation and abrupt transfers.
  - The CBI did recruit some officers in the past to its cadre, but that effort has gone nowhere, and all senior posts in the CBI are now **held by Indian Police Service (IPS) officers.**
  - It is also possible to consider **granting the CBI** and other federal investigation agencies the **kind of autonomy** that the Comptroller and Auditor General enjoys as he is **only accountable to Parliament.**
  - A **more efficient parliamentary oversight** over the federal criminal and intelligence agencies could be a way forward to **ensure better accountability,** despite concerns regarding political misuse of the oversight.
- The CBI is not really popular among the youth who are looking for Central government employment through the Union Public Service Commission examination route, other than those appearing for the All India Services, including the Indian Police Service.
- This makes a case for a fresh look at the **service conditions for direct recruitment to the CBI.**

#### Conclusion:

- ❖ A **comprehensive act of Parliament** setting out the autonomy, powers, etc. is the first step towards improving the CBI's autonomy.
- ❖ CBI is an agency of Central Government that has **wide range of investigating areas and powers.** It was formed with a **goal to check corruption** and other crimes in the nation and so it shall maintain a clean image of itself.
- ❖ The **goal of reforms** should be to make **CBI more autonomous** in nature by seeing examples of **exceptional well run agencies** like CIA, FBI in USA. Greater Political will is required to achieve it which should also keep in mind that it will not deprive them (CBI) of **accountability.**

## 27. WHERE INDIA, JAPAN TIES STAND NOW AND WHAT IS PLANNED FOR THE FUTURE

### Context:

- The **13th India-Japan annual summit** commenced with Prime Minister Narendra Modi and his Japanese counterpart Shinzo Abe visiting a factory of **FANUC Corporation**, one of the largest makers of **industrial robots** in the world.
- The visit to the FANUC facility was important in the context of **India's move towards Industry 4.0** by leveraging developments in the fields such as AI, IoT, 3D printing and robotics.

### India-Japan relations in Recent past:

- The **Japan-India Association** was set up in 1903, and is one of the oldest international friendship bodies in Japan.
- As the **13th India-Japan annual summit** got under way, Japan had pledged **Rs 33,800 crore** in government and private sector investments following the first Modi-Abe meeting in 2014.
- The two countries having signed a **Comprehensive Economic Partnership Agreement (CEPA)** in 2011 to facilitate **growth in bilateral trade**. This was described as the **most comprehensive** of all such agreements concluded by India covering trade in goods and services, movement of persons, investments, intellectual property rights, Customs procedures and other trade related issues.
- The CEPA envisages **abolition of tariffs** on over 94% of items traded between India and Japan over a period of 10 years.
- While Japan has been one of the **biggest sources of investment flows** into India, accounting for **\$28.16 billion in FDI** between April 2000 and June 2018, trade engagements have been below potential. On the list of countries that India exports to, Japan is a lowly 18th; on the list of countries importing into India, Japan ranks 12th.

### Now "Currency Swap Agreement" between India and Japan: How it will help India:

- The big announcement was the decision to conclude a **\$75 billion bilateral currency swap agreement**, which is expected to **help stabilise fluctuations** in the value of the **rupee vis-a-vis the dollar**, and bring down the cost of capital for Indian companies while accessing foreign capital markets.
- It involves the exchange of interest and sometimes principal in one currency, for the same in another currency. This facility will enable the agreed amount of foreign capital being available to India for use as and when the need arises.
- The facility will serve as a **second line of defence for the rupee** after the \$ 393.5 billion of foreign exchange reserves.
- It would not only enable the agreed amount of **capital being available to India**, it will also **bring down the cost of capital for Indian entities**, while accessing the foreign capital market.

### Big-ticket investments by Japan in India:

- Japan has been extending **bilateral loan and grant assistance** to India since 1958, and is its **largest bilateral donor**.
- In the last five years, **\$90 billion** has gone into the **Delhi-Mumbai Industrial Corridor**, which will see new towns, industrial parks, ports and airports alongside the 1,483-km high-speed rail and road line being developed between two of India's top cities.
- Japan is also backing the **Mumbai-Ahmedabad High Speed Rail (bullet train)** service, and has released the first tranche of Rs 5,500 crore. A pact for the second tranche was inked Monday.
- Approximately **81% of the cost** of the project is to be funded through a **soft loan from Japan's government**.
- Discussions have also taken place on the **Dedicated Freight Corridor**, a project of close to Rs 50,000 crore of which Japanese assistance has been of about Rs 38,000 crore.

## Liquidity Boost

### How Does It Help

**WHAT IS CURRENCY SWAP:** One country exchanges its national currency for that of another or even a third one

**INDIA-JAPAN SWAP:** India can acquire yen or dollars from Japan up to \$75 billion in exchange for rupees. The exchange has to be reversed after an agreed period

**TERMS OF AGREEMENT:** The facility is entered into between central banks of two countries. The terms of the swap and its cost are also included. The exchange rate is typically fixed for a transaction. The borrowing bank pays interest for use of funds

RBI's **\$393-billion** chest gets a one-shot **\$75 billion boost**

There is no immediate cost; only when an amount is drawn

**Short-term liquidity mismatches** can be met quickly

It improves market sentiment, curbs speculative pressure on the rupee

**Foreign investors** will draw comfort from the arrangement

- The first section of 190 km, **from New Ateli to New Phulera stations**, has been opened on the Western Dedicated Freight Corridor while the next segment of 492 km **between Rewari and Marwar** is likely to open early next year. Final completion is **targeted for March 2020**.
- Progress on some of the Metro projects being funded by the Japanese across Indian cities was taken stock of, including the **Delhi Mass Rapid Transit System and Chennai Metro**.

#### Conclusion:

- ❖ **Japanese ODA supports India's development** in sectors such as power, transportation, environmental projects and projects related to basic human needs.
- ❖ Recently, a **'Cool EMS Service'** was started, under which Japanese food items permissible under Indian regulations are **transported in cool boxes** from Japan to India through **postal channels**.
- ❖ Both sides are striving to push a **digital partnership**, with the NITI Aayog being the nodal point on the Indian side, and the Ministry of Economy, Trade and Industry on the Japanese side. Areas of potential collaboration include AI, IoT, and big data.

#### Way Forward:

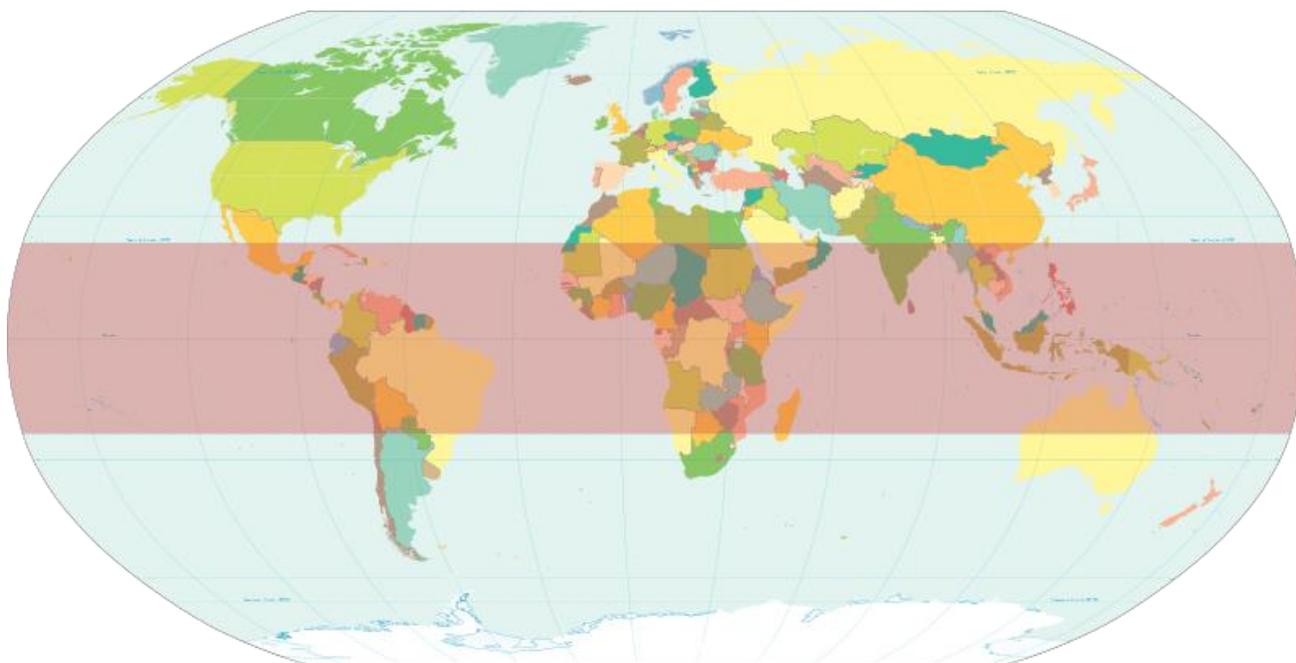
- ✓ The two sides also decided to start negotiations on the **crucial Acquisition and Cross-Servicing Agreement (ACSA)**, which will **enhance the strategic depth** of bilateral security and defence cooperation.
- ✓ Another **new area** where India is likely to make a pitch is for **greater synergy or integration** between the **Ayushman Bharat project** and the Japanese programme called **Asia Health and Wellbeing Initiative**, including how to leverage Japan's strengths in areas such as medical equipment and hospitals.
- ✓ The two leaders shared their view that in order to **achieve shared vision**, India and Japan must endeavour to **work together for a rules-based and inclusive world order** that fosters trust and confidence by **enhancing communication and connectivity** to ensure rule of law, unimpeded trade and flow of people, **technology and ideas for shared prosperity**.
- ✓ **21st century** will be **Asia's century** and Indo-Japan ties will play a key role in shaping it. Both have agreed to **start the 2+2 dialogue**. It's objective is **to promote peace and stability in the world."**

# RSTV, LSTV, AIR - SYNOPSIS

## 1. ONE WORLD, ONE SUN, ONE GRID

*(Topics covered: General Studies III- Technology and Environment)*

- **PM Narendra Modi** stressed that India would generate **40% of power from non-fossil fuels by 2030** and has called for connecting **solar energy supply across borders** giving the mantra of '**One World One Sun One Grid**'.
- The **121-country International Solar Alliance** can be seen as the **future of OPEC** (Organization of Petroleum Exporting Countries) for meeting **energy needs of the world**.
- **Solar power** can thus, play the same role that **oil wells** have played over the past few decades.



*World map with areas between Tropic of Cancer and Tropic of Capricorn highlighted in red*

### INTERNATIONAL SOLAR ALLIANCE:

- It is an alliance (**Treaty-based inter-governmental organization**) of **121 countries** initiated by India, mostly lying partly or completely between the **Tropic of Cancer and the Tropic of Capricorn**.
- It was founded at a meeting of member countries ahead of the **2015 United Nations Climate Change Conference in Paris** in November 2015.
- Its objective is to work for **exploitation of solar energy** needs to reduce dependence on fossil fuels.

### OPEC:

- The **Organization of Petroleum Exporting Countries** is an **intergovernmental organization** of **15 countries**, founded in **1960** in Baghdad.
- These countries account for an estimated **5% of world's proven oil reserves**.
- **2/3<sup>rd</sup> of OPEC's oil production** and reserves are in its six Middle-Eastern countries surrounding the **oil-rich Persian Gulf**.
- Its formation and decisions have played an important role in **global oil production** and **international relations**.

### ANALYSIS:

- The challenges of **global warming and climate change** is becoming serious and efforts need to be done by moving more towards **cleaner fuels** to resolve it.
- Limiting the rise in **global average temperature by 2°C** as per the **Paris Agreement** and even further to **1.5°C** require that the world should move towards **fossil-fuel free economy by about 2040**. This is a **huge challenge** and requires to act rigorously to achieve it.
- India, Europe, United States etc are more or less covered with an **integrated grid for power supply**.

- **Integration of nations** over the world with a **common grid can be very helpful**. This can help in generating, for example, solar energy in regions where it is largely available (like deserts of the world) to places where it is less available. **For example, solar energy generated in Sahara Desert can be taken to Europe** and reduce Europe's dependence on gas.
- **Pitching International Solar Alliance** to becoming a **global body like United Nations** is going to be a very important **foreign policy tool for India** (as its Headquarter is in Gurugram, India) apart from being helpful from **environment, economy and energy** points of views.
- **India** has an **installed capacity of 345GW** in electricity sector with **one National Grid**. **Solar energy is a fast developing industry** in India and its capacity has reached **23 GW till June 2018**. India has an ambitious **target of achieving 100GW** of solar capacity by
- **India** has developed solar energy in **large solar parks**. But, the **solar energy** needs to be made available in lakhs of **villages as well**. This will be helpful for **farmers** to a large extent in increasing his productivity.
- **Government of India** has worked on programmes like **increasing use of LED bulbs** in rural and urban areas both. Such initiatives need to be taken further to **save both energy and climate**.
- A major **challenge** towards achieving **solar energy** all over India is **storage technology** (like using batteries). This will help in getting solar power in **different areas and in non-peak times** of solar energy. India needs to develop and get such technologies at present.

#### CONCLUSION:

- **ISA shall not become a carter** (like OPEC is) rather it should act as a global body that helps in **reducing the effects of climate change and achieving future energy needs** over the world. A cartel's goal is to increase its collective profits by means of price fixing, limiting supply, or other restrictive practices. So, the **goal of ISA**, with India taking a lead, shall be rather to make possible for world to use more of **solar power as a cleaner and sustainable fuel**.

## 2. INDUSTRIAL REVOLUTION 4.0

*(Topics covered: General Studies III – Science and Technology)*

- The **fourth Industrial Revolution** describes the present **technological age ongoing in 21<sup>st</sup> century** that has come up since the **first such revolution** took place in **18<sup>th</sup> century**.
- India's Prime Minister **Narendra Modi** has launched the **Centre for the Fourth Industrial Revolution**, an initiative of the **World Economic Forum**.
- The fourth Industrial Revolution describes the huge changes brought about by **smart technologies**.

#### INDUSTRIAL REVOLUTION

- Industrial Revolution involves introduction and uses of **new manufacturing processes and technologies** during a time period. The transitions, thus, gives **improved and faster means of production**.
- Four such revolutions that have occurred are **TABULATED BELOW**.

Serial number	Time period	Remarks
FIRST	18 <sup>th</sup> to 19 <sup>th</sup> centuries	<b>Iron and textile</b> industries, and <b>steam engines</b> developed in Europe and America. People moved from farm to factories. Spinning jenny, spinning mule, etc were used.
SECOND	1870 – 1914 (before WW I)	Growth of pre-existing industries and expansion of new ones ( <b>steel, oil and electricity</b> ) took place. Telephone, light bulb and internal combustion engine were developed.
THIRD	Ongoing since 1980s	Advancement of technology was made from analog electronic and mechanical devices to <b>digital</b>

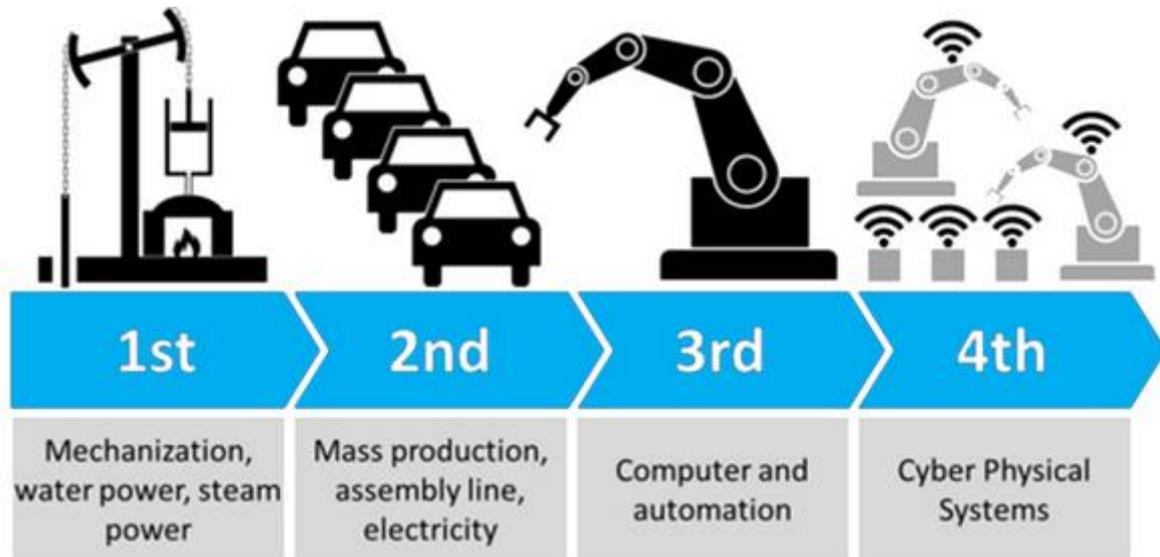
**technology.** Personal computer, internet, etc were developed.

It includes **emerging technologies** like robotics, artificial intelligence, quantum computing, biotechnology, Internet of Things (IoT), 3D printing, etc.

It merges physical, digital and biological spheres.

FOURTH

Phrase first used in 2016



*First to Fourth Industrial Revolution*

#### INDIA AND FOURTH INDUSTRIAL REVOLUTION

- **India** has become the fourth country in the world where **World Economic Forum** has opened its centre for **Fourth Industrial Revolution**. India is thus, preparing for a **massive digital and technological transformation**.
- The **centre for Fourth Industrial Revolution** works as a network that includes **USA, China and Japan**. It will work in **collaboration with NITI Aayog** in India to codesign new policies and protocols for emerging technologies.
- **Initial focus of India** will be on **Artificial Intelligence, Blockchain and drones**.
- Schemes like **Skill India, Startup India, Atal Innovation Mission and Digital India** are developing youths to use new technologies. **India's diversity, demographic potential, fast growing market size and digital infrastructure** have the potential to make India a **global hub for Research and Development**.
- Industrial Revolution 4.0 can help in transforming India by:
  - Alleviating poverty
  - Better and low-cost healthcare
- Enhancing farmer's income
  - Providing new technology and equipment to farmers
  - Strengthening infrastructure, improving connectivity
  - Improve ease of living and ease of doing business

#### INDUSTRIAL REVOLUTION IN INDIA:

- **India** dominated **global cotton textile** markets in **18<sup>th</sup>**
- Indian textile industries **took a hit** when **industrial revolution began in Great Britain**.
- **Britain** became a **leading world exporter of textiles**, displacing India in the process.
- To protect its new textile industry, **Great Britain began to restrict textile imports** from India and other countries by putting **tariffs and other restrictions**.
- **British protectionist laws** hastened India's deindustrialisation.
- **Colonial laws forced Indian farmers** to devote fields to cotton crops. India thus, became an exporter of cotton and importer of textile.
- **India faced widespread famine and poverty** during initial periods of industrialisation.

- First steam powered cotton mill in Asia opened in Bombay in 1854. More such mills were opened in later years.
- So, **Industrial Revolution came late to India** and could develop properly only since it gained independence in 1947.
- In 2018, at present, India is now focussing on the Fourth Industrial Revolution.

#### CONCLUSION:

- **Industrial Revolution** that first **began in Great Britain and later in United States** (after end of Civil War) has helped nations in developing **faster and easier means of mass production**. It has **transformed lives of people** in many ways **over about 250 years**. India is also catching up with focussing on Industrial Revolution 4.0. **Development of new technologies in this era can help the nations** in many ways if these technologies are used **effectively for the welfare of mankind**.

### 3. SIKKIM INDIA'S FIRST ORGANIC STATE

#### (TOPIC COVERED: GENERAL STUDIES III)

- **India's first organic state Sikkim** has won the '**Oscar for best policies**' conferred by the **Food and Agriculture Organisation (FAO)** for the world's best policies promoting **agro-ecological and sustainable food systems**.
- The 'Future Policy Award' received by the **Chief Minister of Sikkim Pawan Kumar Chamling** in Rome on 15 Oct 2018 recognised the state's leadership and political will to lead by example.
- The award was co-organized by **FAO, World Future Council and IFOAM- Organics International**.

#### FOOD AND AGRICULTURE ORGANISATION (FAO)

- It is a specialized agency of the **United Nations**, serving both developed and developing countries that leads **international efforts to defeat hunger**.
- It was **formed on 16 October 1945 in Quebec, Canada** and has its **headquarters in Rome, Italy**.
- It helps developing countries to **modernize and improve** agriculture, forestry and fisheries practices, **ensuring good nutrition and food security**.

#### ORGAINC FARMING

- Organic farming uses **naturally occurring substances** for farming while **prohibiting the use of synthetic substances** which **enhances agro-ecosystem health** (biodiversity, biological cycles and soil biological activity).
- **Organic farming movement** was started in **1940s** as a reaction to use of synthetic substances in agriculture. The term 'organic farming' was coined by **Lord Northbourne** in his **book 'Look to the Land'**.
- Organic produce contain **less or no chemicals** and are **safest to consume**.
- It relies on **organic or natural fertilisers**. Examples – Compost manure, Green manure, Bone meal.
- It places emphasis on techniques like **Crop rotation** (practise of growing a series of different types of crops in the same area in subsequent seasons) and **Companion planting** (planting of different crops in proximity).
- Biological pest control mixed cropping and nurturing insect predators are encouraged.
- Organic farming protects long term **fertility of soil**, provides **crop nutrients** by soil micro-organisms, **Nitrogen self-sufficiency** through the use of legumes and biological Nitrogen fixation, **disease and pest control, livestock management** and protects **overall environment**.
- It prevents the use of modern agricultural methods that are harmful for **human health**.

#### ORGANIC MARKETIN INDIA

- **India** placed at **number 9 in the world**, has 1.49 million hectares of organic farmland (2016 data).
- India is reported to have **largest number of organic producers** in the world.
- India **exports over 300 organic products** in 20 different countries.
- India is the **largest exporter of organic cotton**
- **Current Indian organic market in 2018** is estimated at **Rs 4000 crore** and is likely to increase to Rs 10,000-12,000 crore by 2020.
- But local consumption of organic produce in India has a market share of less than 1%.
- **Increasing support from the Government** has been the key reason for growth of organic farming in India. Increasing health awareness among the people, technological development, etc are other favourable reasons.
- **Innovative technological solutions** like Artificial Intelligence, renewable energy, etc are being developed by private companies for the organic food industry.

**JOURNEY OF SIKKIM TOWARDS A 100% ORGANIC STATE**

- **2003: Sikkim** adopted a **resolution** to switch to **organic farming**.
- Organic farming to ensure **soil fertility, protection of environment and ecology**.
- **Healthy living**, decreasing the risk of health ailments.
- Policy **phased out chemical fertilisers** and pesticides.
- Achieved a **total ban** on sale and use of **chemicals and pesticides** in the state.
- Sikkim **stopped imports** of chemical fertilisers.
- Farmers using **organic manure**.
- **2010: Sikkim Organic Mission** launched that provided seeds and manure and trained farmers in organic farming practices.
- Organic farming is also **attracting large number of tourists** to the state.

**CONCLUSION:**

- Despite the efforts done by some of the policies by the Government, organic farming has not been able to enter the agriculture mainstream in India.
- **Government along with private players** needs to make a robust framework and overcome infrastructural and technological challenges in developing organic farming to a greater level.
- **Sikkim has set an example** in this field which other states may follow.

**4. CBI – CENTRAL BUREAU OF INVESTIGATION**

*(Topics covered: General Studies II – Governance, Polity)*

- **Central Bureau of Investigation (CBI)** is India's **premier investigating agency** that handles **all high-profile cases**. Its job is to ensure a **fair and an impartial probe**. But, recently in October 2018, two of the top officials of the agency have been **reported to be involved in a major feud**. This has led the Government of India to intervene in order to **restore the institutional integrity and credibility of CBI**.

**ANALYSIS:**

- **Origins of CBI** can be traced back to the **Special Police Establishment (SPE)** set up in **1941** in order to **cases of bribery and corruption** in War & Supply Department of India during World War II.
- The need of a **Central Government agency** to investigate **cases of bribery and corruption** was felt even after the end of World War II. So, **DSPE (Delhi Special Police Establishment) Act, 1946** was brought that gave **legal power of investigating cases** to CBI.
- **CBI is not a statutory body** as it is not established by an Act of the Parliament.
- CBI investigates **cases related to** economic crimes, special crimes, cases of corruption and other high-profile cases.
- CBI comes under the jurisdiction of the **Ministry of Personnel, Public Grievances and Pensions**. Various organizations under this Ministry are Union Public Service Commission (**UPSC**), Staff Selection Commission (**SSC**), Lal Bahadur Shastri National Academy of Administration (**LBSNAA**), Central Vigilance Commission (**CVC**), **CBI**, Central Information Commission (**CIC**), etc.
- CBI is **exempted from Right to Information (RTI) Act** similar to National Investigating Agency (NIA), National Intelligence Grid (NATGRID), etc.
- **CBI is headed by a Director, an IPS** (Indian Police Service) officer of the rank of **Director General of Police**. The director is selected based on CVC Act, 2003 for two years-term. **Several other ranks in CBI** are filled through **recruitment by SSC or deputation from** Police, Income Tax Department and Customs Department.
- The **appointment procedure of CBI Director** has undergone **several changes over time**.
  - **Initially**, appointments were made as per **Delhi Special Police Establishment Act, 1946**.
  - **2003: DSPE Act** revised on **Supreme Court's recommendation**. A committee that had members from Central Vigilance Commission, Secretaries from Home Ministry, Ministry of Personnel and Public Grievances would send recommendations to Central Government for appointment of CBI Director.
  - **2014: The Lokpal Act** provided a **committee headed by Prime Minister** and members as Leader of Opposition/ Leader of single largest opposition party, Chief Justice of India/ a Supreme Court Judge for appointment of CBI Director was formed. **Home Ministry sends list of eligible candidates to DoPT** that prepares the final list and send it to the committee.

- Established in 1902 by the British Government, **CID (Crime Investigation Department)** is an investigation and intelligence department of **state police**. On the other hand, **CBI** is an **agency of the Central Government**.
- **The ten regional zones of CBI** are in Mumbai, Hyderabad, Chennai, Guwahati, Kolkata, Patna, Lucknow, Chandigarh, Bhopal and Delhi.
- **Central Government can authorize CBI to investigate** cases in any state with the consent of the concerned state. **Supreme Court and High Courts can also order the CBI to investigate** without state's consent.

#### CONCLUSION:

- CBI is an agency of Central Government that has **wide range of investigating areas and powers**.
- It was formed with a goal **to check corruption and other crimes** in the nation and so it **shall maintain a clean image of itself**.
- Any agency shall have a system of **checks and balances** and so, intervention of Government, CVC, Courts, etc shall be done if needed.

## 5. STRATEGIC PETROLEUM RESERVE

### *(TOPICS COVERED: GENERAL STUDIES III – SCIENCE AND TECHNOLOGY)*

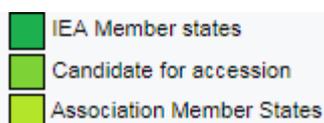
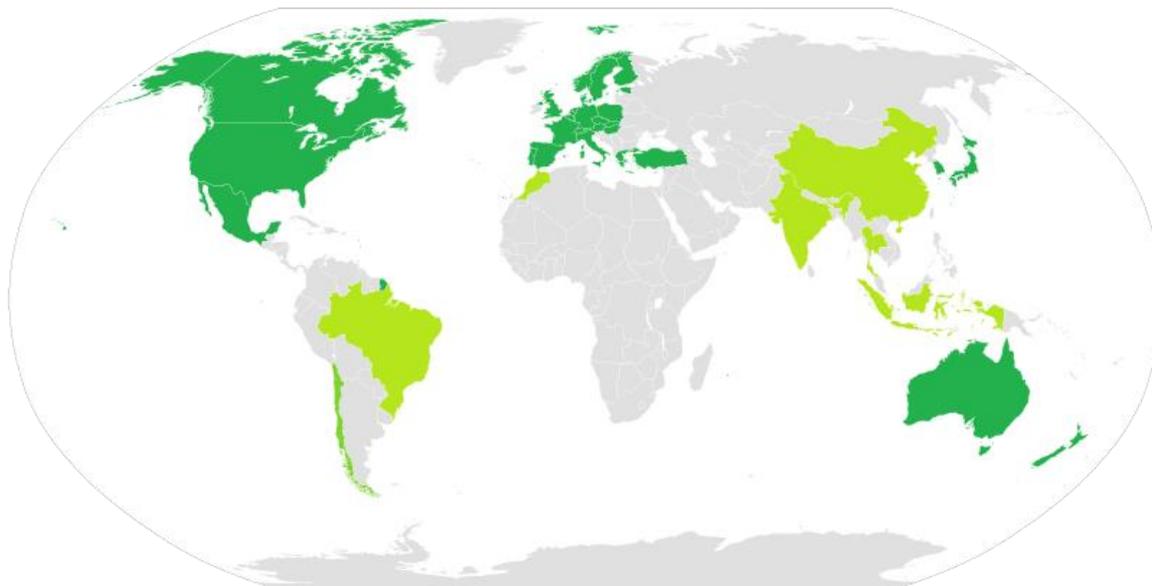
- The **Government of India** is planning to **increase its oil reserves** at a time when there is immense **volatility in global crude oil prices**.
- It plans to build **underground caverns** that can hold 6.5 million tons of crude at two locations – **Odisha and Karnataka**. Such **Global strategic Petroleum Reserves** are **crude oil inventories** held by the government of a particular, as well as private industry, to safeguard economy and national security **during an energy crisis**.

#### GLOBAL STRATEGIC PETROLEUM RESERVE

- A **strategic reserve** is the **reserve of a commodity** that is **held back from normal use** by governments/ organisations/ businesses to **cope with unexpected events**.
- Such strategic reserves can be held for **petroleum, Uranium, Helium, grains, Gold, etc**.
- All members of the **International Energy Agency (IEA)** must have a **strategic petroleum reserve equal to 90 days** of the previous year's net oil imports for their respective countries. Only net-export members of the IEA are exempt under this.
- About **1 billion barrels of oil** are held in **strategic reserves globally**.
- Global oil consumption is 0.1 billion barrels/ day. So, 4.1 billion barrels is **equivalent to 41 days of production**.
- USA has world's largest such reserves. Majority of the remainder reserves are held by IEA members and some non-IEA countries like China also hold large reserves.

#### INTERNATIONAL ENERGY AGENCY (IEA)

- **IEA** is a **Paris-based autonomous intergovernmental organization** established in the framework of **ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD)** in 1974 in the **wake of the 1973 oil crisis**.
- **1973 oil crisis** took place between October 1973 and February 1974 as the **prices of oil increased from US\$3 to US\$12** per barrel globally. It was **influenced by oil embargo by two important oil organisations** – **ORGANISATION OF ARAB PETROLEUM EXPORTING COUNTRIES (OAPEC)** AND **ORGANISATION OF PETROLEUM EXPORTING COUNTRIES (OPEC)**.
- IEA responds to the **physical disruptions in the supply of oil** and gives **statistics about the international oil market** and other energy sectors.
- IEA focuses on **"3Es" of effectual energy policy**: energy security, economic development, and environmental protection.
- The **Organisation for Economic Co-operation and Development (OECD)** is an **intergovernmental economic organisation** with 36 members, founded in 1961 to **stimulate economic progress and world trade**.
- **Only the OECD members can become members of the IEA**. As of October 2018, IEA has 30 member states. **India has joined the IEA as an association country**.



### STRATEGIC PETROLEUM RESERVE (INDIA)

- The **Indian Strategic Petroleum Reserve (ISPR)** is an **emergency fuel storage** maintained by **INDIAN STRATEGIC PETROLEUM RESERVES LIMITED** under the **MINISTRY OF PETROLEUM AND NATURAL GAS (MOP&NG)**.
- Ministry of Petroleum and Natural Gas is responsible for exploration, production, refining, distribution, marketing, import, export, and conservation of petroleum, natural gas, petroleum products and liquefied natural gas in India.
- India **imports 82%** of its oil needs.
- **Strategic crude oil storages** are at **Mangalore (Karnataka), Visakhapatnam (Andhra Pradesh) and Padur (Kerala)** as per **Phase I**. They have fuel storage of total **5.33 MMT (Million Metric Tonnes)** enough to provide **10 days of consumption**.
- Government of India is planning to set up **two more such caverns at Chandikhole (Odisha) and Udupi (Karnataka) as per phase II** by Public-Private partnership. This will give an additional **6.5 million tons** of the oil reserves equivalent to **12 days of consumption**. Thus, a **total of 22 days (10+12)** of oil consumption will be available by ISPR.
- Crude oil from **underground rock caverns** (considered safest for storage of Hydrocarbons) can be supplied to **refineries through pipelines and ships**.
- **Indian refiners** also maintain crude oil storage (industrial stock) of **65 days**. Thus, a **total of 87 days (22 by ISPR + 65 by Indian refiners)** of oil consumption will be made available in India after **completion of Phase II by ISPR**. This will be very close to **90 days mandate by the IEA**.

### CONCLUSION:

- India was **hit economically** during the **Gulf war in 1990s**. It faced **foreign exchange crisis** as **oil prices increased** a lot at the time. India averted the crisis by the policy of **Liberalisation, Privatisation and Globalisation**.
- But, to **cope up with crude oil volatilities** in future, the **Atal Bihari Vajpayee government** came up with the **concept of oil reserves in 1998**.
- As such, **increasing its oil reserves at present** to reach the **IEA mandate of 90 days** is a **welcome step** as **oil meets a large amount of energy requirements** of India.

## 6. INDIA'S ACTIVE VOLCANO

*(TOPICS COVERED: PRELIMS: Indian and World Geography – Physical)*

**MAINS: GENERAL STUDIES I – Important Geophysical phenomena such as volcanic activity, geographical features and their location)**

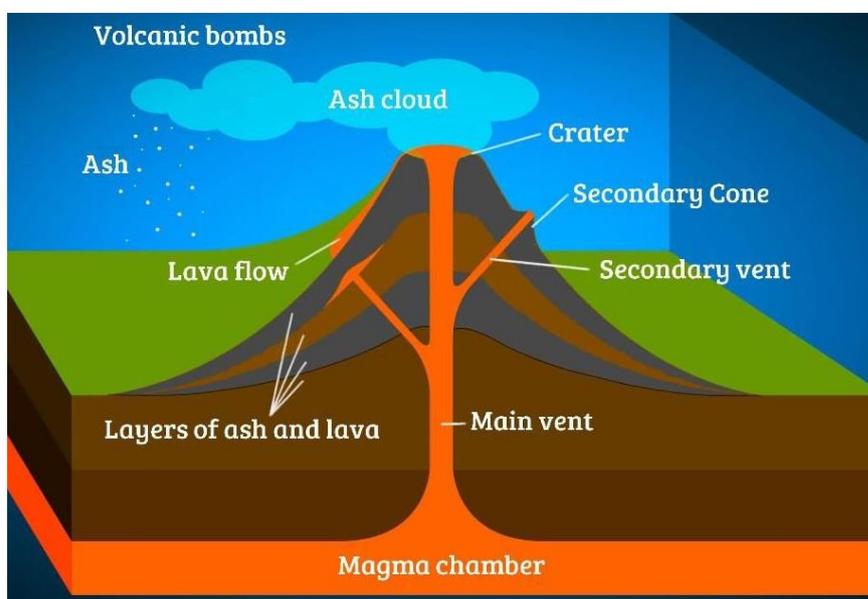
- India's live volcano in the Andaman and Nicobar islands is reported to be erupting once again in 2018.
- The eruptions could be linked to the recent earthquake that rocked Indonesia in Southeast Asia.
- The active volcano in India is Barren Island and is uninhabited, located about 140 km from Port Blair.

### VOLCANO

- It is a rupture in the crust of a planetary-mass object (like Earth), that causes hot lava, volcanic ash, and gases to escape from a magma chamber below the surface.
- On Earth, volcanoes are generally found where tectonic plates (like Eurasian, Pacific, Somali, etc) diverge or converge. Examples- volcanoes occurring in mid-oceanic ridge and Ring of Fire.
- Eruption of volcanoes can be hazardous for humans and other lives living in its vicinity and volcanic ash may be a threat to aircrafts. Volcanoes can also cause
- Large volcanic eruptions inject water vapour (H<sub>2</sub>O), Carbon Dioxide (CO<sub>2</sub>), Sulphur Dioxide (SO<sub>2</sub>), ash, etc into the stratosphere to heights of 16-32 km.
- A volcano is considered to be "active" if it has erupted in the last 10,000 years. Examples – Kilauea (Hawaiian Islands), Mount Etna (Italy), etc.
- Extinct volcanoes are unlikely to erupt again as the volcano no longer has a magma supply. Examples – Volcanoes on Hawaiian Emperor seamount chain in the Pacific Ocean, Shiprock in New Mexico, etc.

### VOLCANIC EXPLOSIVITY INDEX (VEI)

- It is a relative measure of the explosiveness of volcanic eruptions.
- It was devised by Chris Newhall of the United States Geological Survey in
- Explosivity value is determined by volume of products, eruption cloud height, and qualitative observations.
- The indices of VEI range from VEI 0 (non-explosive eruptions) to VEI 8 (most explosive eruptions recorded).
- The 1815 eruption of Mount Tambora (in present day Indonesia) had VEI 7. The ash erupted and dispersed around the world and lowered global temperatures. It was called as "Year without a summer" in 1816 that observed extreme weather events and harvest failures in many areas.



### BARREN ISLAND (ANDAMAN ISLANDS)

- Barren Island is located in Andaman Sea, about 140 km from Port Blair.
- It is a part of Indian Union Territory of Andaman and Nicobar islands.
- Barren volcano in the region is the only confirmed active volcano in South Asia (along a chain of volcanoes from Sumatra to Myanmar)
- The oldest subaerial lava flows of the volcano are calculated to be 1.6 million years old.
- Recent timeline of volcanic eruptions in Barren island:
  - 1787: First recorded eruption
  - 1789, 1795, 1803, 1852: Further eruptions were recorded.
  - 1991: The eruption occurred after about 150 years of dormancy. It lasted for about 6 months and caused considerable damage, particularly to the island's fauna.
  - 1995: Eruption reported
  - 2004-05: Eruption recorded and linked to 2004 Indian Ocean earthquake.
  - 2017: Volcano was spotted. They were a continuation of eruption in 2005, as per a study by Indian Space Research Organisation (ISRO).
  - 2018: Volcanic eruptions reported and linked to 28 September 2018 earthquakes in Sulawesi, Indonesia.

**CONCLUSION**

- Volcanoes are phenomenon which can cause a lot of damage if it occurs in the vicinity of populations living in the region.
- Barren islands are quite far away from human habitations, but can disrupt the paths of flights travelling in the region.
- Volcanoes, Earthquakes, etc are natural phenomenon but **early predictions and preparations can reduce the possible hazards.**

**Question (Prelims 2018)**

Consider the following statements:

1. The Barren Island volcano is an active volcano in the Indian Territory.
2. Barren Island lies about 140 km East of Great Nicobar.
3. The last time the Barren Island erupted was in 1991 and has remained inactive since then.

Which of the following statements above is/ are correct ?

- a) 1 only
- b) 2 and 3
- c) 3 only
- d) 1 and 3

**Answer : Option (A)**