

ISSUE - 18

This fortnightly compilation is of the current affairs write-ups, written by the *faculty of Manifest IAS*, which covers both static and current dimensions of important issues for 3rd and 4th week of September 2019

The write-ups can also be found in the current affairs section on our website:

<https://www.manifestias.com>

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SOCIETY

E-cigarettes

Source: The Hindu

Manifest pedagogy: Health as a topic has to be studied from two dimensions.

1. Science and Technology aspects
2. Governance aspects:

In this topic science behind E - cigarettes and the governance problems need to be studied. The former is important for prelims and the latter for mains.

In news: Centre to bring ordinance to ban e- cigarettes in country.

Placing it in syllabus: Social issues (explicitly mentioned)

Static dimensions:

- What are E- cigarettes?
- Their advantages over regular cigarettes
- Issues surrounding them

Current dimensions:

- Present status of e-cigarettes in India
- How right is the ban?

Content: The Union Cabinet is likely to approve an ordinance prohibiting the manufacture and sale of e-cigarettes in the country. The law would make production, manufacture, import, export, transport, sale, distribution or advertisements of e-cigarettes a cognizable offence.

E-cigarettes:

- An electronic cigarette (also known as electronic nicotine delivery systems, vaporizer cigarettes, and vape pens) is a battery-operated device that emits doses of vaporized nicotine, or non-nicotine solutions, for the user to inhale.
- Aims to provide a similar sensation to inhaling tobacco smoke, without the smoke.
- Are sold as aids to reduce or quit smoking.
- It was invented by Hon Lik, a Chinese pharmacist.

How they work: Most e-cigarettes have:

- a mouthpiece, or cartridge
- a heating element
- a rechargeable battery
- electronic circuits



As the user sucks on the mouthpiece, a sensor activates a heating element that vaporizes a flavored, liquid solution held in the mouthpiece. The person then "vapes," or inhales, the aerosol solution.

The **solution, also known as e-liquid** or e-juice, is made by extracting **nicotine from tobacco and mixing it with a base, usually propylene glycol**, and flavoring. The nicotine content varies from zero to "extra-high," or 24 to 36 milligrams (mg) per milliliter (ml).

Advantages of e-cigarettes over regular cigarettes:

- They may be less hazardous than tobacco for existing smokers.
- They claim to offer a more healthful alternative to cigarettes and other conventional forms of nicotine intake.
- They can help some smokers quit.
- They claim to bypass many of the health risks of tobacco smoking.

Issues related to e-cigarettes:

- Most e-cigarettes contain nicotine, which is addictive and **triggers changes in the adolescent brain.**
- It is hazardous during pregnancy as it can affect fetal development.
- The **aerosol** contains solvents, flavorings, and toxicants, which are "**potentially harmful.**"
- E-cigarettes expose the lungs to different substances such as **dicetyl**, which can **cause "popcorn lung,"** a severe and irreversible lung disease.
- According to the studies carried out in 2018, **nitrosamines** present in e-cigarettes **can damage DNA.**
- The researchers have found that the **ability of lung cells to repair** after exposure to e-cigarette smoke significantly **reduces.**
- Those who use or who have used e-cigarettes are **less likely to stop smoking** altogether.
- Teens who use e-cigarette products are **more likely to start using regular tobacco** as well. (Vaping" is now the most popular form of tobacco use among teenagers in the U.S where it's use rose by 900 percent among high school students from 2011 to 2015).
- Continued use of nicotine can make other drugs, such as cocaine, more pleasurable.
- **Second-hand smoking is not eliminated** by vaping, as vaping releases carcinogenic emissions.

The U.S Food and Drug Administration (**FDA**) **has not approved e-cigarettes as a smoking aid.** Even if vaping can help people quit smoking, there is no evidence that it works in the long term. Several countries, including Mauritius, Australia, Singapore, South Korea and Thailand, have banned the devices.

Present status of e-cigarettes in India:

- In 2018, Delhi High Court urged the centre to come up with regulatory measures to tackle the "new emerging threat" of e-cigarettes in the country.
- Following this, the Health ministry in **August, 2018**, issued an **advisory to the states to ban Electronic Nicotine Delivery Systems (ENDS)** including e-cigarettes, Vape, e-Sheesha, e-Hookah etc...
- As such, the states/Union Territories are advised that any ENDS and like devices are not sold (including online sale), manufactured, distributed, traded, imported and advertised in their jurisdictions, except for the purpose & in the manner approved

under the *Drugs and Cosmetics Act, 1940 and Rules.*

- **In India, 13 states have already banned e-cigarettes and Odisha and Haryana are planning to follow suit.**
- According to a recent study by Delhi-based **NGO Consumer Voice**, over 36 e-cigarette companies are operating in India when officially there is no permission to any of them.
- The government recently came up with a **draft ordinance seeking to ban** the production, import, distribution and sale of electronic cigarettes.
- The draft ordinance called the "**Prohibition of E-cigarettes Ordinance 2019**" is being vetted by a **Group of Ministers (GoM)** comprising the finance minister as well as health, commerce, agriculture, chemicals and petrochemicals and food processing ministries.
- The draft ordinance has proposed a **maximum punishment of up to one-year imprisonment** along with a **penalty of Rs 1 lakh** against first-time violators, and a maximum of up to three years of jail and a penalty of Rs 5 lakh for repeat offenders.
- **Storage of e-cigarettes shall also be punishable** with imprisonment up to six months or fine up to Rs. 50,000 or both.

How right is the ban?

India has the **second largest number of tobacco users** (268 million) in the world – of these at least 12 lakh die every year from tobacco-related diseases. **Nicotine** is the major cause of the predominant behavioral effects of tobacco. It influences and reinforces all tobacco-use behavior. It binds to receptors in the brain where it **influences the cerebral metabolism. e-liquid** has nicotine content varying from zero to "extra-high".

The consumption of e-cigarettes and vapes, are much less in India compared to other countries, but it is catching up with the younger population. In 2017, the market research firm Euromonitor International projected India's vaping market dominated by imported brands to grow 60 percent annually until 2022.

Enforcing a blanket ban on ENDS, instead of regulating them, while cigarettes and other tobacco products continue to be sold in the country under the ambit of **Cigarettes and Other Tobacco Products Act, 2003 (COTPA)**, (*E-cigarettes do not fall within the scope of existing*

COTPA) would **violate Article 14 and Article 19(1)(g)** of the Constitution.

Experts from various fields have welcomed the move and urged the government to pass the ordinance in the larger interest of public health. Anti-tobacco health experts are calling it a move in the right direction.

But the Trade Representatives of ENDS in India (TRENDS), comprising importers, distributors and marketers of alternative smoking devices, has also urged the government to initiate a consultative process so that opinion of all stakeholders can be heard and facts placed in the correct perspective.

The ordinance could be a strong deterrent but will not be of much use until it has provisions for a total ban as the e-cigarette companies will continue to operate illegally. People would start using conventional tobacco products. Hence the ordinance should not leave any loopholes for e-cigarette companies to operate and stringent laws are required.

Mould your thoughts:

1. As E-cigarette is becoming a new epidemic, would a blanket ban solve the issue? Discuss.

POLITY

Transfer of high court judges

Source: The Hindu

Manifest pedagogy: The issue of transparency and accountability of judiciary has been a burning topic since many years. It has got renewed focus because of many recent issues like RTI and Judiciary, Master of the Roster issue, Public conference held by judges, Sexual harassment allegations against CJI and now the transfer issue. Either a generally question on accountability can be asked or a specific topic can be picked up.

In news:

On August 28, 2019, the Supreme Court collegium consisting of five senior-most judges recommended the transfer of Madras High Court Chief Justice VK Tahilramani to the Meghalaya High Court.

Placing it in syllabus:

Functioning of the judiciary

Static dimensions:

Constitutional provisions on transfers

Important Supreme court decisions on transfer of judges

Current Dimensions:

Problems involved in the present issue

Solutions

Content:

- The collegium, headed by Chief Justice Ranjan Gogoi, recommended transfer of Justice Tahilramani, from Madras High Court to the Meghalaya High Court.
- She spent almost 17 years as a judge in the Bombay High Court and has been its acting chief justice.
- She was transferred to the Madras High Court in August 2018.
- There has not been any controversy about her functioning and hence it is unclear why her transfer to a smaller High Court was necessary.
- The **collegium resolution has merely stated that it is being done for better administration of justice.**
- After the collegium resolution she had made a representation, requesting it to reconsider the proposal for transfer.
- However on September 3, 2019, collegium did not accede to her request and reiterated its recommendation and uploaded the resolution on the SC website.
- Justice Tahilramani has **submitted her resignation** after her request for reconsideration of the transfer was rejected.
- Legal luminaries have criticised Justice Tahilramani for resisting the transfer, arguing that no High Court is lesser than another.
- Many have pointed out that Tahilramani in 2017, had upheld the conviction of the accused in the **Bilkis Bano case** linked to the 2002 Gujarat communal riots.
- However, she was made a chief justice of a High Court much after this judgement, so the attempt to link her transfer to the Gujarat case is weak.
- While sections of the Bar have questioned the transfer as well as the **lack of transparency** about the exact reason, the SC issued an official statement that the Collegium indeed had cogent reasons which could be revealed if necessary.

Constitutional provisions on transfers of high court judges:

- **Article 222** of the Constitution makes provision for the **transfer of a Judge (including Chief Justice)** from one High Court to any other High Court.
- The initiation of the **proposal** for the transfer of a Judge should be **made by the Chief Justice of India(CJI).**

- The opinion of the CJI “**is determinative**”.
- Consent of a Judge for his first or subsequent transfer would not be required.
- In the formation of his opinion for the transfer of a Judge, other than the Chief Justice, the CJI is expected to **take into account the views of the Chief Justice of the High Court from which the Judge is to be transferred and Chief Justice of the High Court to which the transfer is to be effected**.
- The views of one or more Supreme Court Judges who are in a position to offer his/their views are also taken into account.
- In the case of transfer of a Chief Justice, only the views of one or more knowledgeable Supreme Court Judges need to be taken into account.
- The **views on the proposed transfer** of a Judge or a Chief Justice of the High Court should be expressed in writing and should be considered by the CJI and the four senior most Judges of the Supreme Court.
- The proposal should be referred to the Government of India.
- Then the **Union Minister of Law, Justice and Company Affairs** would **submit a recommendation to the Prime Minister** who will then **advise the President** as to the transfer of the Judge concerned.
- After the **President approves the transfer**, the notification will be gazetted and the judge remains transferred.

Important Supreme court decisions on transfer issues:

The **Collegium of judges is the Supreme Court's invention** and is **not mentioned in the Constitution**. It is a system under which judges are appointed by an institution comprising judges.

After some judges were superseded in the appointment of the Chief Justice of India in the 1970s, there was a perception that the independence of the judiciary was under threat. This resulted in a series of following cases:

- The **'First Judges Case' (1981)** ruled that the “consultation” with the CJI in the matter of appointments must be full and effective. However, it rejected the idea that the CJI's opinion should have primacy.
- The **Second Judges Case (1993)** *introduced the Collegium system*, holding that “consultation” **really meant “concurrence”**. It added that it was not the CJI's individual opinion, but an institutional opinion formed in consultation with the two senior-most judges in the Supreme Court.
- On a Presidential Reference for its opinion, the Supreme Court, in the **Third Judges Case (1998)** expanded the Collegium to a five-member body, comprising the CJI and four of his senior-most colleagues.

Problems involved in the present issue:

The **lack of information** in the transfer resolution has led to a barrage of criticism against the collegium and its opaque process of appointments and transfers. While this is true given that all high courts have similar powers under the Constitution, a **transfer without delineating proper reasons** has an inherent danger to be seen as a punishment.

Tahilramani is the senior-most among the High Court judges currently holding office. The Madras High Court considered a prestigious court with a long history has a sanctioned strength of 75 judges compared to just three in the Meghalaya High Court. Hence the immediate question that has arisen is when Justice Tahilramani had just over a year of service left, was it necessary to “**demote**” her?

Common criticism made against the Collegium system:

The norm of the Supreme Court collegium **not to make public, the reasons for transfers** and maintaining **opaqueness** are contributing to an erosion of the judiciary's credibility and its image of being independent in its functioning from the executive. This also invariably makes the High Court judges look subordinate to the Supreme Court collegium.

Collegium, which is not a constitutional body has **monopoly over transfer of judges**. The small base from which the selections are made and the secrecy and confidentiality ensured, on many occasions lead to **wrong appointments** based on past favours instead of merit or seniority as well as **nepotism**.

The attempt made to replace it by a '**National Judicial Appointments Commission**' was struck down by the court in 2015 on the grounds that it posed a threat to the independence of the judiciary. **Dissenting judge, Justice J. Chelameswar, termed it "inherently illegal".**

In an effort to boost transparency, the Collegium's resolutions are now posted online, but the reasons are not given.

The consultative process that had been put into place to guard the judiciary against arbitrary transfers has been criticised for itself becoming **arbitrary**. The case of Justice Tahilramani fits into this framework where the public is left with no information on why the transfer was made.

Solutions:

- In the **Union of India v SankalChand Sheth case (1977)**, the actual transfer of the judge was withdrawn and Justice **PN Bhagwati**, had stated that to **transfer without consent was inimical to the independence of the judiciary**. Henceforth, Justice Bhagwati's view of no transfer without consent needs to be followed.
- To make the system more transparent and declare the reasons for transfer of the judges.
- Merit and seniority should be given an upper hand while making transfers rather than personal interests.

Mould your thoughts:

Where does the Supreme Court collegium system has its origin? What are the criticisms against it?

Bonafides after conversion

Source: The Hindu

Manifest pedagogy: Right to conversion has been in news recently due to Hadiya case. It has got a new orientation in the present case where a person is asked to prove. The issue of conversion and its Constitutional dimensions should be thorough studied.

In news:

- Supreme Court (SC) asks man to prove bona fides after conversion.

Placing it in syllabus:

- Fundamental rights

Dimensions:

- What is the issue about?
- Right to conversion in India and SC judgements

Content:

- The SC recently asked a man, who converted from Islam to Hinduism to marry a Hindu girl, to prove his bona fide.
- The Bench asked him to prove his good intentions by filing an affidavit in order to secure the girl's future and safety.
- The case was heard on an appeal filed by the girl's parents after the Chhattisgarh High Court recorded the 24-year-old girl's willingness to live with her husband.
- The girl's father's advocate submitted that the marriage was a sham as the man had changed his name merely for the purpose of marriage and had returned to the fold of Islam.
- The man's lawyer said the court could not intervene in the choice of a woman to decide whom to live her life with.
- The lawyer quoted the **Hadiya case (2018) decision of the Supreme Court, which said the right to choice of partner is part of the fundamental right to life** under Article 21.
- The lawyer said the court could very well summon the girl to gauge her response.

Right to conversion in India:

Article 25 to Article 28 of the Indian Constitution guarantees the right to freedom of religion to all citizens residing within the territorial boundaries of the country.

1. Freedom of conscience and free profession of religion (**Article 25**).
2. Freedom to manage religious affairs (**Article 26**).
3. Freedom from payment of taxes for promotion of any particular religion. (**Article 27**).
4. Freedom to attend religious instructions (**Article 28**).

Article 25 deals with Freedom of conscience and free profession, practice and propagation of religion -

(1) Subject to public order, morality and health, all persons are equally entitled to freedom of conscience and the right freely to profess, practise and propagate religion. E.g. The wearing and carrying of kirpans shall be deemed to be included in the profession of the Sikh religion.

However, **Right to propagate does not include a right to convert another person to one's own religion.**

(2) Nothing in this article shall affect the operation of any existing law or prevent the State from making any law—

- (a) regulating or restricting any economic, financial, political or other secular activity which may be associated with religious practice;
- (b) providing for social welfare and reform or the throwing open of Hindu religious institutions of a public character to all classes and sections of Hindus.

In sub-clause (b) of clause (2), the reference to **Hindus** shall be construed as **including a reference to persons professing the Sikh, Jaina or Buddhist religion**, and the reference to Hindu religious institutions shall be construed accordingly.

Important SC judgements related to religious conversion:

In the case of **Digydarsan Rajendra Ramdassji v. State of Andhra Pradesh (1969)**, the SC decided that "the right to propagate one's religion means the right to communicate a person's beliefs to another person or to expose the tenets of that faith, but would not include the right to convert another person to the former's faith.

The SC in **Rev Stanislaus V. State of Madhya Pradesh (1977)** case, **upheld the validity of the earliest anti-conversion statutes:** Madhya

Pradesh Dharma Swatantraya Adhiniyam, 1968, and the Orissa Freedom of Religion Act, 1967. (Orissa was the first state to bring such law named as 'Orissa Freedom of Religion Act, 1967'. It was followed by Madhya Pradesh in 1968 and Arunachal Pradesh in 1978. Chhattisgarh in 2000 and Gujarat State in 2003 passed anti-conversion laws.)

The Court found that “**restrictions on efforts to convert are constitutional** because such efforts impinge on ‘freedom of conscience’ and ‘public order’ and concluded that the right to propagate did not include the right to convert any person.

In **Sarla Mudgal V. Union of India case**, SC held that till the time a Hindu marriage is dissolved under the **Hindu Marriage Act, 1955**, none of the spouses can contract a second marriage. Conversion to Islam and marrying again would not, by itself, dissolve the Hindu marriage under the Act. The second marriage by a convert would, therefore, be in violation of the Act and as such a void in terms of **Section 494, IPC**.

Law commission report on conversion:

235th Report of the Law Commission of India, headed by **Justice PV Reddi** on the subject of religious conversion (2010) recommended the following:

- Within a month after the date of conversion, the converted person, if she/he chooses, can send a declaration to the officer in charge of registration of marriages in the concerned area.
- The registering official shall exhibit a copy of the declaration on the Notice Board of the office till the date of confirmation.
- The said declaration shall contain all the requisite details.

- Within 21 days from the date of sending/filing the declaration, the converted individual can appear before the registering officer, establish her/his identity and confirm the contents of the declaration.
- The Registering officer shall record the factum of declaration and confirmation in a register maintained for this purpose.
- Certified copies of declaration, confirmation and the extracts from the register shall be furnished to the party who gave the declaration.

Mould your thoughts:

1. What does Article 25 of the Indian constitution connote? Discuss the important Supreme Court judgements on religious conversion in India.

Detention issues in Kashmir

Source: The Hindu

Manifest pedagogy: Preventive detention is a controversial subject matter in Indian constitution. There is a tussle between Individual freedom and need for Societal and state security in preventive detention. Indian constitution provides for Preventive detention along with numerous safeguards to prevent its misuse. With the amendments to Article 370 in Indian constitution and the subsequent disturbances in Jammu and Kashmir the provisions of detention are being repeatedly invoked. This makes it an area of interest for UPSC for Polity section in Paper 2 and Internal security section in Paper 3.

In news:

- Farooq Abdullah, a three-term Chief Minister of J&K, is under detention.

Placing it in syllabus:

- Fundamental rights- writs

Static dimensions:

- Constitutional provisions on detention
- Public Safety Act
- Habeas corpus- what is it, when can be it issued, conditions to file it (in detail)

Current dimensions:

- Detention of Farooq and issue of children detention

Content: Farooq Abdullah, Lok Sabha MP and former chief minister of Jammu and Kashmir, is under detention under the stringent Public Safety Act (PSA).

Detention of Farooq and issue of children detention:

- Farooq Abdullah was reportedly detained under the PSA which is applicable to J&K and allows detention of any person without a trial for two years.
- Abdullah is the first Chief Minister to have been detained under this law.
- On **August 6** in Parliament, Home Minister Amit Shah had said that Abdullah had neither been detained nor arrested.
- On the same day, Abdullah while speaking to TV channels had said that he had been kept under arrest in his house.
- Abdullah's son Omar Abdullah, himself a former chief minister, and Mehbooba Mufti, also a former chief minister, have also been under detention since August 5.
- As a **habeas corpus petition was filed** by Rajya Sabha MP and MDMK leader Vaiko to know the whereabouts of his "friend" and colleague, the Supreme court issued notices to the Centre and the State and fixed Vaiko's plea for hearing on September 30, 2019.

The Supreme court has simultaneously termed as "very very serious" the allegation that it is very difficult for people in the J&K to access the High

Court. This particular issue was pertaining to a **PIL** seeking SC's intervention **on the issue of detention of children in the State.**

- The Supreme Court has assigned the **J&K High Court's Juvenile Justice Committee** to inquire into allegations of illegal detention of young children by the security forces in J&K.
- Solicitor General Tushar Mehta however objected to the issuance of notice or mention in the order of "detention of children", as it would have huge and wide repercussions.
- But the court did not concede to the request and maintained that the panel should initiate an inquiry into the allegations.

Constitutional provisions on detention:

Article 22: Protection against arrest and detention in certain cases

- (1) No person who is arrested shall be detained in custody without being informed of the grounds for such arrest nor shall he be denied the right to consult, and to be defended by, a legal practitioner of his choice.
- (2) Every person who is arrested and detained in custody shall be produced before the nearest magistrate within a **period of twenty-four hours** and no such person shall be detained in custody beyond the said period without the authority of a magistrate.
- (3) If a person is an enemy alien or is arrested or detained under a law providing for **preventive detention**, then the protection

against arrest and detention under **Article 22 (1) and 22 (2) shall not be available.**

(4) No law providing for preventive detention shall authorise the **detention of a person for a longer period than three months** unless an Advisory Board consisting of persons who are qualified to be appointed as Judges of the High Court has opined that there is sufficient cause for such detention.

(5) When any person is detained under preventive detention, the authority making the order shall communicate to such person the grounds on which the order has been made and give him the earliest opportunity of making a representation against the order.

The **grounds for Preventive detention are—**

- security of state,
- maintenance of public order,
- maintenance of supplies and essential services and defence,
- foreign affairs or security of India.

A person may be detained without trial only on any or some of the above grounds. A detainee under preventive detention can **have no right of personal liberty** guaranteed by Article 19 or Article 21.

Note:

Preventive detention is different from punitive detention. Punitive detention is punishment for illegal acts done. Preventive detention on the other hand is action taken beforehand to prevent possible commitment of crime.

Public Safety Act (PSA):

- The law was introduced by Sheikh Abdullah in **1978** in order to **prevent timber smuggling**, and keep the smugglers “out of circulation”.
- After the emergence of militancy, the J&K government frequently invoked the PSA to crack down on separatists.
- The PSA **allows for administrative detention** for up to two years “in the case of **persons acting in any manner prejudicial to the security of the State**”, and for administrative detention up to one year where “any person is acting in any manner **prejudicial to the maintenance of public order**”.
- In the aftermath of the killing of Hizbul Mujahideen commander Burhan Wani in July 2016, hundreds of youths in the Valley were detained under PSA, with extendable detention periods.

- **In August 2018, the Act was amended to allow individuals to be detained under the PSA outside the state as well.**
- Detention orders under PSA can be issued by **Divisional Commissioners or District Magistrates.**
- The detaining authority **need not disclose any facts** about the detention “which it considers to be against the public interest to disclose”.
- **Section 22** of the Act provides protection for any action taken “in good faith” under the Act.

What happens after PSA is used?

- Within four weeks of passing the detention order, the government has to refer the case to an **Advisory Board.**
- This Advisory Board will have to give its **recommendations within eight weeks** of the order.
- If the Board thinks that there is cause for preventive detention, the government can hold the person up to two years.

The person detained has limited rights. They do not have the right to legal representation and cannot challenge the arrest unless sufficient grounds can be established that the detention is illegal.

Habeas Corpus:

The **Writ Jurisdiction of Supreme Court** can be conjured under **Article 32** of the Constitution for the **infringement of central rights ensured under Part – III** of the Constitution. Similarly Article 226 deals with the writ jurisdiction of high courts. The Supreme Court has been made the defender of the Fundamental Rights.

One of the important writs for individual freedom is “Habeas Corpus” which signifies “**You may have the body**”. It first originated in 1215, in **39th clause of Magna Carta**, signed by King John. It is used to **secure a person who has been detained unlawfully or illegally.**

Habeas Corpus writ is called “**Bulwark of Individual Liberty against arbitrary detention**”.

- It is an exception such that anybody on behalf of the detainee can file a petition.
- It is applicable to preventive detention also.
- It can be issued against both public authorities as well as individuals also.

When can it be issued?

When the detention is:

- (1) not according to law.

- (2) not strictly following the procedure established by law.
- (3) when invalid law is followed (if the law infringes Fundamental Law).
- (4) exceeds the law enacted by legislature.

Who can apply?

Not only the **prisoner or detained**, but **any other person** who knows the merits of the case, acquainted with the facts and circumstances and has recognized interest in moving of such application in front of the court can apply under Art. 32 and Art. 226 of the Constitution.

Conditions of refusal:

- i) when the person or authority i.e. detainer does not come under the territorial jurisdiction of the court,
- ii) when the imprisonment is in nexus with the order or decision rendered by the court,

- iii) when the detenu has already been set free,
- iv) when the writ is sought during emergency situations
- v) when the petition has been dismissed by a competent court by looking into the merits.

Limitation for Habeas Corpus:

'Though a writ of right, it is not a writ of course' – means it provides only procedural remedy (guarantees against any detention that is forbidden by law), but it does not provide any other remedy (does not protect any other rights such as fair trial etc.)

Mould your thoughts:

1. What is Public Safety Act (PSA)? Discuss the constitutional provisions detention.
2. "The Habeas Corpus secures every man against everything which is not law, whatever shape it may assume." Examine.

Hindi to unite India?

Source: The Hindu

Manifest pedagogy: The issue of National language has many dimensions to it, hence it can be asked in different disciplines namely Indian Society, Post independent India and Indian Polity or even ethics (Constitutional Morality of Federalism and NATIONAL language). Hence the aspirant should prepare all the aspects.

In news:

- **Union Home Minister** who is also **in charge of the Department of Official Language**, asserted that “Hindi could work to unite the country” on the occasion of **Hindi Diwas**.

Placing it in syllabus:

- Language issue in India

Static dimensions:

- Debate on official language at the time of independence
- Hindi language movement and countermovement in south
- Provisions of Constitution on languages
- Official Language Act, 1963 and its amendment of 1971

Current dimensions:

- Consequences of recent language issue if implemented and solutions

Content: Union Home Minister Amit Shah’s recent statement that Hindi can unite the country has once again evoked sharp disapproval from political parties, especially in south India.

Debate at the time of independence:

Post independence, the debate over declaring national language started. Hindi speaking states favoured for Hindi to be declared as the national language. Great leaders like Mahatma Gandhi, B.R. Ambedkar too favoured Hindi.

However non-Hindi speaking states, especially from South showed a sharp opposition. Another interesting factor that motivated the anti-Hindi argument was the seeming lack of prestige in the Hindi language. Though Hindi literature had grown, it was nowhere as ancient as Kannada, Tamil or Telugu.

In 1948, when the **Linguistic Provinces Commission** presented its report to the constituent assembly, it concluded that “formation of provinces on linguistic considerations” is not in the larger interests of the Indian nation. The need of the hour was to find a way to invest in unity, and to create a framework that would bring together people of all parts of the country together.

After three years of debate, the assembly arrived at a compromise at the end of **1949** by the **Munshi-Ayyangar formula**. This formula **did not provide for a national language**. It proposed that Hindi in Devanagari script would be the “official language of the Union” and that

English would continue to be used for all official purposes for fifteen years from the date of the Constitution, which could be extended by Parliament. All the groups accepted the proposal. The Constitution, did not declare Hindi as the national language and rather accorded Hindi the status of official language along with English (Article 343). Official Languages Act, 1963 was passed and now Hindi is one of the 22 scheduled languages contained in the eighth schedule of the constitution.

Hindi language movement and countermovement in south:

Post independence, the adoption of an official language for the Indian Republic was a highly debated issue during the framing of the Indian Constitution. The new Constitution came into effect on 26 January 1950.

In the Constituent Assembly, Hindi was voted as the official language by a single vote. However, it added that English would continue to be used as an associate official language for 15 years. Efforts by the Indian Government to make Hindi the sole official language after 1965 were not acceptable to many non-Hindi Indian states, who wanted the continued use of English.

The **Dravida Munnetra Kazhagam (DMK)**, a descendant of Dravidar Kazhagam, led the opposition to Hindi. To allay their fears, Prime Minister Jawaharlal Nehru enacted the **Official**

Languages Act in 1963 to ensure the continuing use of English beyond 1965.

As the day (26 January 1965) of switching over to Hindi as the sole official language approached, the anti-Hindi movement gained momentum in Madras State with increased support from college students. Riots broke out all over Madras State marked by acts of violence, looting, police firing and lathi charges.

To calm the situation, the then Prime Minister Lal Bahadur Shastri gave assurances that English would continue to be used as the official language as long as the non-Hindi speaking states wanted. The Official Languages Act was eventually amended in 1967 to guarantee the indefinite use of Hindi and English as official languages.

Now the **Eighth Schedule** of the Indian Constitution lists **22 languages**, which have been referred to as scheduled languages and given recognition, status and official encouragement.

Provisions of Constitution on languages:

Article 343: The **official language of the Union shall be Hindi** in Devanagari script. The form of numerals to be used for the official purposes of the Union shall be the international form of Indian numerals.

Article 344: The **President** shall, after the expiration of fifteen years from the commencement of this Constitution, by order **constitute a Commission** which shall make recommendations to the President regarding

- the progressive use of Hindi for official purposes of the Union;
- restrictions on the use of the English language for all or any of the official purposes of the Union;
- the language to be used for all or any of the purposes mentioned in article 348;
- the form of numerals to be used for any one or more specified purposes of the Union;

Article 345: Subject to the provisions of articles 346 and 347, the legislature of a State may by law adopt any one or more of the languages in use in the State or Hindi as the Language or Languages to be used for official purposes of that State.

Article 346: The language authorised for use in the Union for official purposes shall be the **official language for communication between one State and another State** and between a State and the Union, provided that if two or more States agree that the Hindi language should be the official language for communication between such States.

Article 347: On a demand being made, if the President is satisfied that a substantial proportion of the **population of a State desire the use of any language spoken** by them to be recognised by that state, direct that such language shall also be officially recognised throughout that State or any part thereof.

Article 348: Until Parliament by law otherwise provides, all proceedings in the Supreme Court and in every High Court, the authoritative texts of all Bills to be introduced and amendments to be moved in either House of Parliament or in the House or either House of the Legislature of a State, shall be in the English language.

The Governor of a State may, with the previous consent of the President, authorise the use of the Hindi language, or any other language used for any official purposes of the State, in proceedings in the High Court having its principal seat in that State.

Article 350: Every person shall be entitled to **submit a representation for the redress of any grievance** to any officer or authority of the Union or a State in any of the languages used in the Union or in the State.

Article 350A: facilities for instruction in mother-tongue at the primary stage.

Article 350B: provides for the establishment of a Special Officer for linguistic minorities.

Article 351: It shall be the duty of the Union to **promote the spread of the Hindi language**, to develop it so that it may serve as a medium of expression for all the elements of the composite culture of India and to secure its enrichment.

Official Language Act, 1963 and its amendment:

- Notwithstanding the expiration of the period of fifteen years from the commencement of the Constitution, the English language may, continue to be used, in addition to Hindi,--
 - (a) For all the official purpose of the Union for which it was being used immediately before that day; and
 - (b) For the transaction of business in Parliament.
- The Act also lays down that both Hindi and English shall compulsorily be used for Resolutions, General Orders, Rules, Notifications, Administrative Reports, Press Communiques etc.
- The form of numerals to be used for official purposes of the Union were supposed to be the international form of Indian numerals.

The 1967 Amendment modified **Section 3 of the 1963 Act** and provides for **continuing the use of**

English in official work even after 25 January 1965. Hence it guaranteed the "*virtual indefinite policy of bilingualism*" (English and Hindi) in official transactions.

Consequences of recent language issue if implemented and solutions:

What connects the country is our glorious history and the Constitution. They uphold the **language diversity** principle. Hence the opinion of bringing one particular language of the 22 languages to connect Indians, is **neither historically sensible, nor constitutionally correct**.

'**One nation, one language, one culture**' is a 19th century European idea that **failed to create unity**. Instead, it **caused a lot of bloodshed** in the world. Above all, when a language tries to expand beyond its **semantic-carrying capacity**, it starts **breaking up**. It happened to Latin in the past and to Sanskrit as well.

Any idea of one link language, whether Hindi or English, will be **economically disastrous** for India. It will **slow down migration and reduce the ease of capital flow**.

Though many leaders in the national movement visualised a special role for Hindi, most of them supported Hindustani, a mixed language, not the pure Hindi being pushed today. But all of them were clear that it could not be imposed.

Facts:

- The "**Hindi**" dialect under the scheduled language is **spoken by** about 32 crores i.e., around **26% of the Indian population (census 2011)**.
- Close to 40% of the Hindi language speakers speak mother tongues other than Hindi.
- Despite being spoken by a large number of people, Bhojpuri and Rajasthani are not listed as scheduled languages, while Bodo and Nepali which are spoken by relatively fewer people are in the Eighth Schedule.
- The southern States and northeastern States, apart from Arunachal Pradesh and Sikkim, have the lowest proportion of the Hindi speaking population.
- The share of Hindi-speaking people in Gujarat is significantly lower than most States, according to the data.

India is united in its diversity. Diversity is a great philosophical idea and should never be seen as a cultural burden. The **three-language policy** was introduced, officially giving regional languages their space, while not compromising on either English or Hindi's positions.

The Hindi speakers should be let alone. The government should not interfere with the linguistic behaviour or choices of people. India is uniquely gifted in that out of the world's 6,000 languages, we have close to 10% of the spoken languages. Our **country is multilingual** in nature and any attempt to make it monolingual would be disastrous. Hence **ensuring diversity will bring about unity in the country**.

Mould your thoughts:

- (1) Language freedom is a hugely emotive issue. Elucidate.

INTERNATIONAL RELATIONS, ISSUES AND INSTITUTIONS

India-Australia relations

Source: The Hindu

Manifest pedagogy: UPSC 2020 has proved again that the section on International relations provides considerable amount of flexibility for UPSC to frame new and innovative questions. They have moved from mere Bilateralism based questions to Questions on Bilateralism in context of Global politics and issues. This makes a clear understanding on the changing global dynamics an imperative to answer such questions. In these changing trends an understanding on India Australia relations is necessary.

In news:

- Defence Minister Rajnath Singh is expected to visit Australia in November, 2019 and both countries are likely to conclude the long-pending mutual logistics support agreement (MLSA).

Placing it in syllabus:

- India Australia bilateral relations

Static dimensions:

- India-Australia relations - historical perspective

Current dimensions:

- India's interest in Australia and vice versa
- Relation in recent times
- Present issue

Content: India- Australia relations - historical perspective:

Australia and India have established diplomatic relations since pre-Independence period.

1941: Consulate General of India was first opened as a Trade Office in Sydney in 1944: Lieutenant-General Iven Mackay was appointed Australia's first High Commissioner to India.

1945: India's first High Commissioner to Australia arrived in Canberra.

1950s: As part of the **Colombo Plan**, many Indian students were sponsored to go and study in Australia.

1960s: Easing of restrictions saw an increase in non-European Indians migrating to Australia especially professionals.

1992: The Australia-India Council (AIC) was established.

2008: Mutual Legal Assistance Treaty (MLAT) and the Extradition Treaty between India and Australia, were signed. (entered into force in 2011)

2009: Upgradation of bilateral relationship between the two nations to a "**Strategic Partnership**", including a joint declaration on Security cooperation.

2013: Former Defense Minister A K Antony paid the **first ever official visit by an Indian**

Defence Minister to Australia and held bilateral talks with the then Australian Defence Minister.

2014: A Civil Nuclear Cooperation Agreement between the two countries was signed during the visit of then PM Tony Abbott to India.(came into force in 2015)

2014: Social Security Agreement(SSA) was signed.

2016: The Australian Parliament passed the "**Civil Nuclear Transfer to India Bill 2016**" which ensures that contracts to supply Australian uranium to India for civil use is fulfilled.

Why India and Australia need each other?

India and Australia have several commonalities, which serve as a foundation for closer cooperation and multi-faceted interaction. **Both are strong, vibrant, secular and multicultural democracies.** As Australia is in India's extended neighbourhood, it sees India at the heart of the historic shift in political and economic influence.

Why India needs Australia?

- Australia supports India's candidature in an expanded **UN Security Council**.
- Both India and Australia are **members of the G-20, Commonwealth, IORA, ASEAN Regional Forum, Asia Pacific Partnership** on

Climate and Clean Development, and have participated in the East Asia Summits.

- Australia is an important player in **APEC and supports India's membership** of the organisation.
- **Defence Cooperation** between India and Australia has expanded significantly in recent years.
- **India's trade in goods and services** with Australia was approximately US\$ 15.6 billion in 2016. India's exports to Australia stood approximately at US\$4.6 billion in 2016.
- Australia is now the **2nd biggest overseas education destination** for Indian students.
- In the **mining sector**, Australia's exports include minerals and fuels, energy investment and collaboration on areas of joint significance.
- India, in its "Make in India" initiative can significantly use **Australian expertise in the field of health, education and tourism** as these are areas in which Australia has a comparative advantage.
- India which will have the largest working population in the world by 2027 and will need to **up-skill 400 million people**. Australia is well-equipped to assist with this huge need for knowledge-sharing, education and skill development.

Why Australia needs India?

- **India is now Australia's 4th biggest export market.**
- **Services exports to India** have also been growing rapidly with education leading from the front.
- **Indian tourist arrivals** have also been on the rise, contributing to Australia's services exports to India.
- **India's globally-renowned IT industry** is growing ever-stronger and there are solid linkages with Australia's ICT capabilities.
- The **Australian Trade Commission** offers services for Indian businesses in identifying potential Australian business partners, sourcing Australian technology, products and expertise and in identifying Australian joint venture partners & investors.
- At almost 700,000 strong, **Australia's Indian diaspora**, makes a significant contribution to Australia's society and economy. They are the **second highest tax paying diaspora**, behind the British.

Both the nations can effectively address the shared challenges such as combating

transnational crime, terrorism, people smuggling, and illegal fishing. Both the nations, being aware of China's assault on maritime security and freedom of navigation in the Indo-Pacific region, can serve **together as the net security provider** in the region.

Relation in recent times:

- The two countries are currently discussing a **Comprehensive Economic Cooperation Agreement (CECA)** which will provide greater market access to exporters of goods and services and address the border restrictions to trade.
- India is also seeking to **address its adverse balance of trade** in Goods and Services through specialized market access for its products.
- India and Australia have recently emerged as close strategic partners in the **Indo-Pacific** which is evident in the number of high level visits and the number of **joint military exercises** between the two countries.
- The shift in the relationship is primarily led by a common **maritime security concerns** due to a rising China and its strategic consequences on the Indo-Pacific strategic order.
- The joint naval exercise, **AUSINDEX**, is a manifestation of this synergistic approach to maritime security. The third iteration held in April, 2019 saw the largest deployment of Australian forces to India so far.
- Both are also part of other multilateral naval exercises such as Rim of the Pacific (RIMPAC) hosted by the US and the Exercise MILAN hosted by India.
- Other areas of cooperation include the establishment of a **blue economy, infrastructure and connectivity initiatives**, and strategic industry collaboration.
- Reports suggest that India and Australia are likely to sign a number of important agreements sooner including the Mutual Logistics Support Agreement (**MLSA**), an **information exchange agreement and a broader maritime agreement**.

Maritime security cooperation, especially the information sharing arrangement, will help both sides to gain a better strategic awareness picture of the Indo-Pacific region. These have been identified as elements in the India-Australia Joint Declaration on Security Cooperation signed in 2009 and Framework for Security Cooperation signed in 2014.

Present challenges in the neighbourhood:

China has been increasingly challenging the traditional areas of influence of both India and Australia, i.e., the Indian subcontinent (**String of Pearls**) and South Pacific Islands. China's growing deployments in the Indian Ocean has thrown a challenge to India in its immediate neighbourhood.

On the Australian continent, China is trying to win over the Pacific countries (small islands such as Vanuatu, Tonga and the Solomon Islands have become beneficiaries of China's seemingly generous economic outreach) through **chequebook diplomacy**.

However, amidst all the engagements of India with Fiji in recent years (Forum for India-Pacific Islands Cooperation (FIPIC), pledging US \$ 1 million towards climate change assistance to Fiji's COP23 Presidency in 2017) Australia has not expressed disapproval about India's presence in the Pacific region.

Likewise, Australia's four-year, A\$ 25-million South Asia Regional Infrastructure Connectivity Initiative (SARIC) has been well-received in India. **As China challenges Canberra and New Delhi in their traditional geographies, the two nations have found in each other reliable partners.**

Present issue:

Both countries are likely to conclude the long-pending **MLSA** and a broader maritime cooperation agreement when Indian defence minister visits Australia in November, 2019. Signing of these agreements would lead to greater interoperability and help in elevating the strategic partnership.

The logistics agreement has been in the discussion phase for a few years now and Australia is reported to have given India a draft text in 2016. India concluded **LEMOA with the United States in 2016**, and since then has signed two such agreements, **one with France and a second one with South Korea, just a few weeks ago.**

The MLSA assumes greater importance in light of India and Australia's limited naval capabilities. The scarcity of resources puts severe limitations on a country's ability to project power in the distant waters, leaving its far-off assets at the mercy of other actors. In the case of India and

Australia, such a limitation puts them at a disadvantage vis-à-vis China.

Similarly, India has legitimate interests in the wider Indo-Pacific with its ever-increasing trade with the countries in the region. It faces occasional challenges in the distant waters of South China Sea, the latest being China's deployment of a survey vessel, close to waters where state-owned ONGC Videsh is engaged in oil and gas production. The conclusion of MLSA at the earliest will help improve the capabilities of both nations to operate in distant waters.

Mould your thoughts:

- (1) Examine how the soft power diplomacy has emerged between India and Australia in recent years.

The International Migrant Stock 2019- UN DESA report

Source: The Hindu

Manifest pedagogy: Demography across the world is changing rapidly due to natural growth rate and migration. Geo-political issues and developmental aspects have significant impact on migration pattern across the world. Understanding changing demography is crucial for sustainable development. IMS 2019 could be asked both at mains and prelims. From prelims perspective key findings would be crucial.

In news:

- IMS 2019 report has been released by the UN.

Placing it in syllabus:

- Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

Static dimensions:

- What is International Migrant Stock?
- Utility of data of International Migrant Stock

Current dimensions:

- Key Findings of IMS 2019
- IMS 2019 and India

Content: India has emerged as the leading country of origin for immigrants across the world, with **17.5 million international migrants in 2019** coming from India, up from 15.9 million in 2015, according to **The International Migrant Stock (IMS) 2019**, released by the UN Department of Economic and Social Affairs.

(DESA)'s Population Division

What is International Migrant Stock (IMS)?

- International migrant stocks are estimates of **"the total number of international migrants present in a given country at a particular point in time"**.
- An **international migrant** is defined as "any person who changes his or her country of usual residence".
- IMS provides the latest estimates of the number of international migrants by **age, sex and origin** for all countries and areas of the world.
- The estimates are based on official national **statistics on the foreign-born or the foreign population obtained from population censuses**, population registers or nationally representative surveys.
- Data on migrant stocks are often reported together with data on migrant flows.
- Although both terms account for the number of migrants, what they measure is different.

- **Migrant flows data** account for the number of migrants entering or leaving during a specified time period.

Utility of IMS:

- Estimates of migrant stock are available for 232 UN countries/areas and comprise the **most geographically comprehensive information on international migration**.
- The comparison of national statistics on international migration is difficult at a global level as countries use different concepts and definitions. The timing of census data also varies from country to country. UN DESA use **interpolation and extrapolation methodologies to estimate stocks for countries** where no recent censuses have been conducted.
- For those **countries with only one data point available since 1990**, UN DESA use the increase in migrant stocks in the region, or area or country with a similar profile to estimate stocks in a certain year.
- These data are critical for understanding the important **role of migrants and migration in the development of both countries** of origin and destination.
- **Facilitating orderly, safe, regular and responsible migration** and mobility of people will contribute much to achieving Sustainable Development Goals.

Key findings of IMS 2019:

(1) In 2019, the number of international migrants worldwide has reached nearly **272 million, up from 221**. The **percentage of international migrants** of the total global population has **increased to 3.5% from 2.8% in 2000**.

(2) **One-third of all international migrants originated from 10 countries** — after India, Mexico ranked second as the country of origin for 12 million migrants, followed by China (11 million), Russia (10 million) and Syria (8 million).

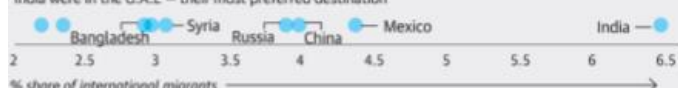
Final destination

As of 2019, one-third of all international migrants originated from 10 countries. India led the pack with 17.5 million such people. Most of them were in the U.A.E followed by the U.S.



Labourers installing paving stones in the Marina district of Dubai, U.A.E. The country hosts close to 34.2 lakh Indian migrants

Graph shows the % share of international migrants from top 10 countries by origin as of 2019. Indian-origin people form 6.45% of such migrants. As of 2019, 19.5% of international migrants from India were in the U.A.E — their most preferred destination



(3) The **European region hosted the highest number of immigrants** at 82 million in 2019, followed by North America (59 million) and Northern Africa and Western Asia (49 million).

(4) Most of the world's migrants live in a relatively small number of countries. In 2019, two thirds of all international migrants were living in just 20 countries. The U.S. hosts the highest number of international migrants (51 million), about 19% of the global population.

(5) **Forced displacements across international borders** have continued to **rise**. The global number of refugees and asylum seekers increased by about 13 million between 2010 and 2017.

(6) **Most international migrants move between countries located within the same region**. The majority of international migrants in sub-Saharan Africa, Eastern and South-Eastern Asia, Latin America and the Caribbean and Central and Southern Asia originated from another country in the same region where they resided.

(7) Women comprised slightly less than half of all international migrants. The **share of women in the total number of international migrants fell** from 49.3 percent in 2000 to 47.9 percent in 2019.

(8) One out of every seven international migrants are below the age of 20 years. In 2019, 38

million international migrants, equivalent to 14 percent of global migrant population, were under 20 years of age. Sub-Saharan Africa hosted the highest proportion of young persons among all international migrants (27 per cent).

(9) Three out of every four international migrants are of working age (20-64 years). In 2019, 202 million international migrants, equivalent to **74 per cent of the global migrant population, were between the ages of 20 and 64**.

IMS 2019 and India:

- The **count of the Indian diaspora has increased 10%** from 15.9 million in 2015, making it the largest in the world.
- The **number of migrants living in India saw a slight decline** from 5.24 million in 2015 to an estimated 5.15 million in 2019 – both 0.4% of the total population of the country.
- India now **comprises 6.4% of the total global migrant population**.
- **Bangladesh was a top source of migrants to India**, followed by Pakistan, Nepal, Sri Lanka and China.
- The **United Arab Emirates (UAE) was the top destination of Indian migrants** followed by the US, Saudi Arabia, Pakistan and Oman.
- In 1990, India was behind Russia and Afghanistan as a source of international migrants. In 2019, **Russia fell to the fourth position behind Indian, Mexico and China**.

INDIANS ON THE MOVE



Mould your thoughts:

(1) What are the recent trends in International migration? How the International migration stock (IMS) helps in analysing migration pattern across the globe?

AGRICULTURE

National Animal Disease CONTROL programme and National Artificial insemination programme

Source: The Hindu

Manifest pedagogy: The growing importance of livestock and allied activities is vital for doubling farmers incomes through diversification. Moreover, this provides a safeguard during situations of droughts and floods by actively safeguarding farmers incomes. Thus, the disease control programs act as supplementary to insurance programmes for the benefit of the farming community as a whole.

In news:

- Two new programmes related to livestock were recently launched by honourable PM Narendra Modi.

Placing it in syllabus:

- Schemes related to livestock (explicitly mentioned)

Static dimensions:

- Livestock in India
- Agriculture development verification and extension programmes

Current dimensions:

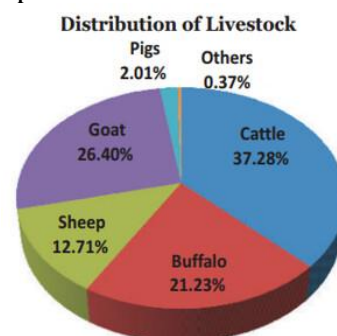
- Productivity of livestock
- Reasons for low productivity
- National Animal Disease CONTROL programme
- National Artificial insemination programme

Content: Livestock in India: Livestock plays an important role in Indian economy. About 20.5 million people depend upon livestock for their livelihood. Livestock contributed 16% to the income of small farm households as against an average of 14% for all rural households. It also provides employment to about 8.8 % of the population in India. **Livestock sector contributes 4.11% to GDP** and 25.6% of total agricultural GDP.

19th Livestock census, 2012 highlights:

- The total livestock population consisting of **Cattle, Buffalo, Sheep, Goat, pig, Horses & Ponies, Mules, Donkeys, Camels, Mithun and Yak** in the country is 512.05 million numbers in 2012.
- The total livestock population has **decreased by about 3.33%** over the previous census(2007).
- Livestock population has increased substantially in Gujarat, Uttar Pradesh and Assam.
- The total **Bovine population** (Cattle, Buffalo, Mithun and Yak) shows a **decline of 1.57%**.
- The number of milch animals (in-milk and dry) in cows and buffaloes has seen an increase of 6.75%.

- The **exotic/crossbred milch cattle** saw an **increase of 34.78%** whereas the indigenous milch cattle saw an increase of 0.17%.
- The total **poultry** population in the country has **increased by 12.39%**.
- The total **sheep** in the country is 65.06 million numbers in 2012, **declined by about 9.07%**.
- The **Goat population has declined** by 3.82% over the previous census.
- The total **pigs** in the country have **decreased by 7.54%** over the previous census.
- Horses & Ponies population has increased by 2.08% over the previous census.
- **Camel population has decreased** by 22.48% over the previous census.



Agriculture development verification and extension programmes:

1952: Community Development Programme
1953: The National Extension Service
1960: Intensive Agricultural District Programme (IADP)
1965: Intensive Agriculture Area Programme (IAAP)
1966: High Yielding Varieties Programme (HYVP)
1967: Farmers Training Centers
1969: Small Farmers Development Agency (SFDA)
1969: Marginal Farmers and Agricultural Labourers Programme (MFAL)
1974: **Krishi Vigyan Kendras (KVK)** - the Knowledge Hub, established by ICAR at district level
1976: District Rural Development Agency (DRDA)
1978: Integrated Rural Development Programme (IRDP)
1979: Lab to Land Programme sponsored by ICAR (LLP)
1980's: 'Training and Visit' (T & V) system was introduced with the World Bank assistance.
1993: Broad Based Extension System (BBES)
2005-06: Agriculture Technology Management Agency (ATMA) Model
 ATMA is a **registered society of key stakeholders** (farmers, line/development departments, non government organizations, input dealers, mass media, agri-business companies, farmers organizations, etc.) involved in agriculture activities for sustainable agricultural development in the district.
 It's objective is to provide an effective mechanism for coordination and management of activities of different agencies involved in technology adoption / validation and dissemination at the district level and below.
 The **State Department of Agriculture** serves as a **nodal agency** for implementing ATMA. Government of India is funding ATMA programme in all the districts of the country.
2005-06: Human Resource Development through training and demonstrations is an integral part of the **National Horticulture mission**.
2006-07: National Agricultural Innovation Project (NAIP), implemented by Indian Council of Agricultural Research (ICAR).
State Agricultural Universities apart from lending support in implementing ICAR sponsored extension programmes, have evolved several

innovative extension models to effectively reach the farming community all over the country.

Productivity of livestock (comparison with other countries)

- At the global level, livestock contributes 15 percent of total food energy and 25 per cent dietary protein (2009 FAO report).
- With only 2.4 per cent of the **land area of the world, India is maintaining about 10.71 per cent** of the world's livestock.
- The livestock sector contributed 4.11 per cent to the national GDP during 2012-13 (with the total animal population of 512.05 million).

Livestock population (2012 Livestock census)

Sl. No	Species	Number (in millions)	Ranking in the world population
01	Cattle	190.9	Second
02	Buffaloes	108.7	First
	Total (including Mithun and Yak)	300	First
03	Sheep	65.0	Third
04	Goats	135.2	Second
05	Pigs	10.3	-
06	Others	1.7	-
	Total livestock	512.3	
	Total poultry	729.2	Seventh
07	Duck	-	
08	Chicken	-	Fifth
09	Camel	-	Tenth

Reasons for low productivity: (According to World Bank report)

- *Bovine production* systems face a number of constraints including **slow productivity growth, feed scarcity, breeding problems, diseases, large population of low producing indigenous cattle, inadequate infrastructure, poor extension services**.
- *Small ruminant production* systems have come under stress because of **deteriorating quality and quantity of grazing resources, low yielding animals, high mortality** rates due to diseases and lack of marketing facilities.
- The *poultry* sector growth is impeded by a number of factors including **lack of feed supplies and diseases**.
- Farmers are also increasingly **moving from cereals to cash crops** which give less fodder resulting in **higher fodder prices**.

- In nominal terms, public expenditure increased over time, but the share of the central government spending has declined.
- **Expenditure on research**, education and is **meagre** and has increased only marginally over time.
- Weakening traditional institutions and **increasing land pressure** have also threatened the natural grazing lands.
- Pastoralists are **abandoning livestock production**, voluntarily or involuntarily, in increasing numbers.
- Climate variations like increasing temperature and decreasing rainfall are reducing the yield of pastures leading to **overgrazing and degradation**.

National Animal Disease Control programme (NADCP):

- NADCP was launched on 11th, September, 2019 from **Mathura in Uttar Pradesh**.
- Objective is to eradicate the **Foot and Mouth Disease (FMD) and Brucellosis** in the livestock.
- **100 Percent funding** from the Central Government, of Rs 12,652 Crores for a period of five years till 2024.
- The programme aims at vaccinating over 600 Million Livestock including cattle, buffalo, sheep, goats and pigs against the FMD.
- Also aims at **vaccinating 36 Million Female Bovine Calves** annually in its fight against the **Brucellosis** disease.
- The Programme has **two components** – to control the diseases by 2025 and eradication by 2030.

National Artificial insemination programme:

Artificial insemination is a novel method of **bringing about impregnation in female breeds**.

It prevents the spread of certain diseases which are genital in nature, thereby enhancing the efficiency of the breed.

- The PM launched the National Artificial Insemination Programme on September 11, 2019.
- A country wide workshop in all the **Krishi Vigyan Kendras (KVKs) in all the 687**

Districts of the country on vaccination and disease management, Artificial Insemination and Productivity was also launched.

KVKs:

- The first KVK was established in 1974 at Puducherry.
- The KVK scheme is **100% financed by Govt. of India** and the KVKs are sanctioned to Agricultural Universities, ICAR institutes, related Government Departments and Non Government Organizations (NGOs) working in Agriculture.
- It is an integral part of the **National Agricultural Research System (NARS)**, aims at assessment of location specific technology modules in agriculture and allied enterprises, through technology assessment, refinement and demonstrations.
- They have been functioning as **Knowledge and Resource Centre** of agricultural technology supporting initiatives of public, private and voluntary sector.

The Prime Minister also launched several other programmes concerning Livestock Health, Nutrition and Dairy Farming. To promote innovations and new technology from villages and generate employment, **“Start up Brand Challenge”** has been launched.

Mould your thoughts:

What are the reasons for low productivity of livestock in India? Explain the newly launched National Animal Disease Control programme (NADCP).

ECONOMY

Social security in India

Source: The Hindu

Manifest pedagogy: Insurance and pension programmes are vital to facilitate human development with demographic change. The problems faced by Europe and other developed countries will eventually be a burden for India as well if we do not take appropriate measures on time. Therefore, social security net is vital along with increased focus on vulnerable and unorganised groups.

In news:

- New social sector schemes for farmers and shopkeepers launched.

Placing it in syllabus:

- Social Security in India (explicitly mentioned)

Static dimensions:

- Status of Social security in India
- Social security schemes for unorganised sector

Current dimensions:

- New schemes launched
- Need for such schemes

Content: India's social security schemes cover the following types of social insurances:

- Pension
- Health Insurance and Medical Benefit
- Disability Benefit
- Maternity Benefit
- Gratuity

While a great deal of the Indian population is in the **unorganized sector** and may not have an opportunity to participate in each of these schemes, Indian citizens in the organized sector and their employers are entitled to coverage under the above schemes.

There are **two major social security plans in India, the Employees' Provident Fund Organization (EPFO) and the Employees' State Insurance Corporation (ESIC).**

The **EPFO runs a pension scheme and an insurance scheme.** All of these are supposed to grant EPFO members and their families benefits for old age, disability, and support in case the primary breadwinner dies.

The **ESIC covers low-earning employees providing them with basic healthcare and social security schemes.** Originally aimed at factory workers, the coverage was extended to include greater parts of the population, e.g. employees in hospitals or educational institutions. The ESI scheme has been implemented in all states excluding Manipur and Arunachal Pradesh.

Social security schemes for unorganised sector:

In order to provide social security benefits to the workers in the unorganised sector, the Government has enacted the **Unorganised Workers Social Security Act, 2008.** Some of the welfare schemes for unorganised workers stipulated under this act are:

- (1) The **National Social Assistance Programme (NSAP)**, launched in 1995 is a Centrally Sponsored Scheme of the Government of India that provides financial assistance to the elderly, widows and persons with disabilities in the form of social pensions.
- (2) **Janani Suraksha Yojana (JSY)**, launched in 2005, is a safe motherhood intervention under the National Rural Health Mission (NRHM) being implemented with the objective of reducing maternal and neonatal mortality by promoting institutional delivery among the poor pregnant women.
- (3) **Rajiv Gandhi Shilpi Swasthya Bima Yojana** aims at financially enabling the artisans' community to access to the best healthcare facilities in the country. This scheme covers not only the artisans but his wife and two children also.
- (4) **National Scheme of Welfare of Fishermen** aims at providing better living standards for fishermen and their families and social security for active fishers and their dependants.

(5) **Aam Admi Bima Yojana**, launched in 2013, is a social security scheme aimed at unorganised sector workers aged between 18 and 59 years, which offers a cover of Rs 30,000.

(6) **Rashtriya Swasthya Bima Yojana (RSBY)**, launched in 2008, aims to provide health insurance coverage to the unrecognised sector workers belonging to the BPL category and their family members. It provides for inpatient medical care of up to Rs. 30,000 per family/year in public as well as empaneled private hospitals.

((Recently launched schemes))

(7) Atal Pension Yojna (APY):

- Under the APY, subscribers would receive a fixed minimum pension at the age of 60 years, depending on their contributions, which itself would vary on the age of joining the APY.
- The Central Government would also co-contribute 50 percent of the total contribution or Rs. 1000 per annum, whichever is lower, for a period of 5 years, who are not members of any statutory social security scheme and who are not Income Tax payers.
- The pension would also be available to the spouse on the death of the subscriber and thereafter, the pension corpus would be returned to the nominee.
- The minimum age of joining APY is 18 years and maximum age is 40 years.

(8) Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY):

- Under PMJJBY, life insurance of Rs. 2 lakh would be available on the payment of premium of Rs. 330 per annum by the subscribers.
- The PMJJBY will be made available to people in the age group of 18 to 50 years having a bank account from where the premium would be collected through the facility of "auto-debit".

(9) Pradhan Mantri Suraksha Bima Yojana (PMSBY):

- Under PMSBY, the risk coverage will be Rs. 2 lakh for accidental death and full disability and Rs. 1 lakh for partial disability on the payment of premium of Rs. 12 per annum.
- The Scheme will be available to people in the age group 18 to 70 years with a bank account, from where the premium would be collected through the facility of "auto-debit".

- **Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) Yojana:** Under the scheme, the government has promised a direct payment of Rs. 6000 in three equal instalments of Rs. 2000 each every four months into the Aadhar bank accounts of eligible landholding Small and Marginal Farmers (SMFs) families.

Pradhan Mantri Kisan Mandhan Yojana:

- Honourable Prime Minister Narendra Modi recently launched a pension scheme for farmers from Ranchi, Jharkhand.
- Under the scheme, farmers between 18 and 40 years of age will get **Rs 3,000 monthly pension after reaching 60**.
- The scheme has an outlay of Rs 10,774 crore for the next three years.
- All **small and marginal farmers (with less than 2 hectares) who are currently between 18 to 40 years** can apply for the scheme.
- Registration for the farmers' pension scheme was started on August 9, 2019.
- Life Insurance of India (LIC) has been appointed **insurer** for this scheme.
- The farmers will have to make a **monthly contribution of Rs 55-200**, depending on the age of entry, in the pension fund till they reach the retirement date.
- This is an **optional** scheme.
- The government started registrations for the Pradhan Mantri Kisan Maan-Dhan Yojana (PM-KMY) on August 9, 2019.
- The enrolment for the voluntary scheme is being **done through the Common Service Centres (CSCs)** located across the country.
- **No fee is charged for registration** under the scheme.
- The Centre pays Rs 30 to CSC for every enrolment to ensure that the scheme witnesses maximum coverage.

Pradhan Mantri Laghu Vyapari Mandhan Yojana, 2019:

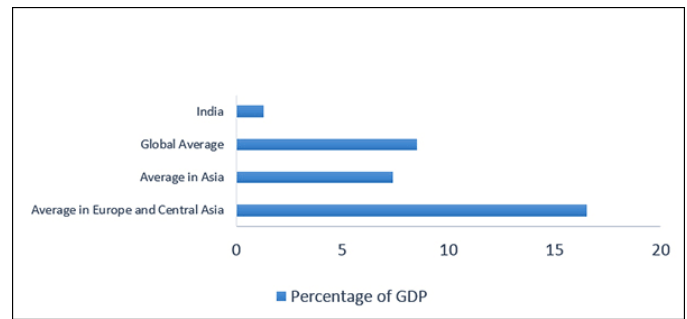
- The new scheme that offers pension coverage to the trading community was launched from Jharkhand.
- Under the scheme, all **shopkeepers, retail traders and self-employed persons** are assured a minimum monthly **pension of Rs. 3,000/-** month after attaining the age of **60 years**.
- All small shopkeepers and self-employed persons as well as the retail traders with **GST turnover below Rs. 1.5 crore and age**

between 18-40 years, can enrol for this scheme.

- The scheme would benefit more than 3 crore small shopkeepers and traders.
- The scheme is based on **self-declaration** as no documents are required except **Aadhaar and bank account**.
- Interested persons can enrol through CSCs across the country.
- To be eligible, the applicants should **not be covered under the National Pension Scheme, Employees' State Insurance Scheme and the Employees' Provident Fund or be an Income Tax assessee**.
- The **Central Government will make matching contribution**(same amount as subscriber contribution) i.e. equal amount as subsidy into subscriber's pension account every month.
- Five crore traders are expected to join the scheme in the next three years.

Why are they needed?

With about 22 percent of India's population living below the poverty line, the "unorganized" sector, i.e. enterprises — mainly in agriculture, which are not legally covered by any form of social security, is disproportionately large.



Source: World Social Protection Report 2017–19, International Labour Organisation.

The social security schemes for the unorganised sector, in addition to enhancing **labour-market efficiency** and providing income security to the poor and vulnerable, also address multiple facets of poverty by building **resilience against socio-economic crises and shocks**, e.g. health hazards, disability, unemployment and old age.

According to the **World Bank (2015)**, social safety nets reduce the poverty gap by 15 percent and the poverty headcount rate by eight percent. As highlighted by the **International Labour Organisation (ILO) and the G20 forum**, social-protection systems act as **self-regulating economic stabilisers, boost employability and fortify aggregate domestic demand, thus facilitating the transition into a more formalised economy**.

Mould your thoughts:

Discuss the need for social security schemes for unorganised sector in India. Highlight the features of newly introduced Pradhan Mantri Kisan Mandhan Yojana.

Amendment to income tax act

Source: The Hindu

Manifest pedagogy: Corporate tax rates are a key parameter guiding investments vis-s-vis other emerging markets. Moreover, due to the ongoing trade tensions with respect to USA and China, many companies are finding suitable places to invest abroad. In this regard, review of tax cuts are important to boost competitiveness, make in India and also create a virtuous cycle of domestic investments and growth.

In news:

- Income tax act has been amended and corporate tax has been cut

Placing it in syllabus:

- Changes in economic policies

Static dimensions:

- Corporate tax in India and other developing countries
- Corporate tax cut
- Slowdown in the economy
- A virtuous cycle of investment

Current dimensions:

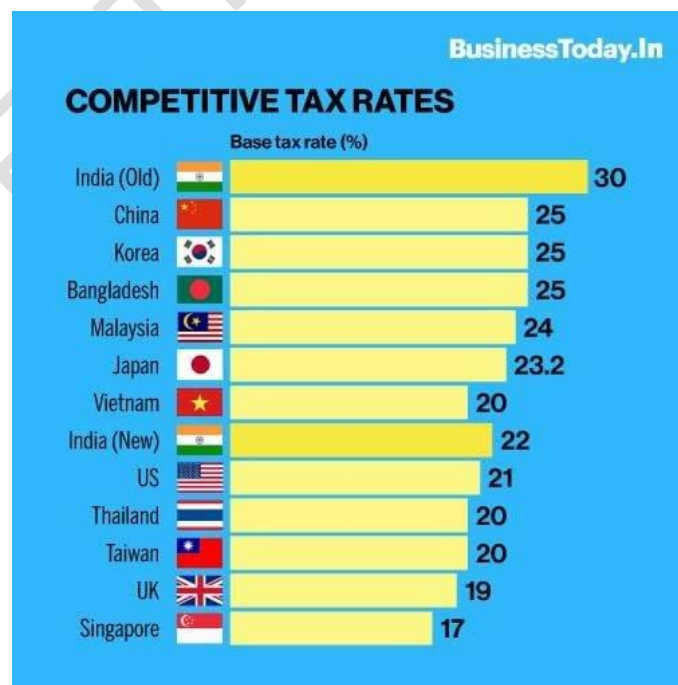
- Key changes
- Potential impact

Content: Income tax and Corporate tax in India and other developing countries:

Corporate tax is a tax imposed on the net income of the company. Companies, both private and public which are registered in India under the Companies Act 1956, are liable to pay corporate tax.

India's corporate tax rate (before rate cuts) was among the highest in South Asia and ASEAN, making it uncompetitive when it comes to attracting foreign investments. With base tax rate coming down to 22 per cent (15 per cent in case of new investments in manufacturing), the country now has one of the lowest corporate tax rates in the region.

Singapore with 17 per cent tax rate, and Vietnam, Thailand, Cambodia and Taiwan with 20 per cent base tax rates are the only countries offering lower rates than India.



For long, Vietnam has been considered a big threat to India as it has successfully been attracting foreign investors through lower tax rates. Lot of manufacturers leaving China because of Sino-US trade disputes are said to be opening shops in Vietnam with lower tax rates being one of the reasons for investors' preference for the country.

The move makes India attractive from a tax perspective. A report released by Kotak Economic Research said that the revised rate will be attractive for companies looking to shift from China or considering a China plus one policy.

India has removed the tax disadvantage for companies looking to set up capacity in India.

Corporate tax cut:

- The corporate tax rate has been **reduced from 30 per cent to 22 per cent** with effect from 2019-20.
- Any domestic company will have the option to pay income tax at the rate of 22 per cent (plus surcharge and cess; effective tax rate at 25.6 per cent) subject to the condition that **they will not avail any exemption/incentive**.
- Such companies would **not be required to pay Minimum Alternate Tax (MAT)**.
- Domestic Manufacturing companies set up after October, 2019 to get option to pay 15% tax (effective tax rate at 17.01 per cent).
- This benefit is available to companies that do not avail of any exemption/incentive and commence their production on or before March 31, 2023. These companies will also not be required to pay MAT.
- For listed companies that have announced buyback before July 5, 2019, tax on buyback of shares will not be charged.
- Enhanced surcharge will not apply to capital gains arising on equity sale or equity-oriented funds liable to Security Transaction Tax (STT).

The revenue foregone for this move will be Rs 1.45 lakh crore annually.

Tax rates and slowdown in the economy:

The general trend around the world has been to bring down the burden of corporate tax. The revenue from corporate tax was 3.56% of GDP in India for 2018-19. The share of direct taxes, including personal income tax, was 6.4% of GDP. Regressive indirect taxes still account for more than 60% of all tax collections in India, including by the states.

However, corporate tax is non-transferable only in a formal sense. Companies calibrate their pricing to take into account a high rate of corporate tax, thereby passing on the burden to the consumer. The only way this can be prevented is if the market is very competitive.

Therefore, it makes sense to have low, uniform rates of import duty, and low rates of corporate tax comparable to those in similarly placed economies. However for the tax cuts to suffice to reverse the ongoing economic slowdown calls for **sustained investment**.

To achieve a sustained boom, investment in infrastructure must pick up. For this to happen the **broken financial mediation mechanism**

has to be fixed - banks burdened by bad loans, tottering non-banking financial companies (NBFCs) and a dysfunctional debt market and and a healthy model of public-private-partnership (PPP) in big projects.

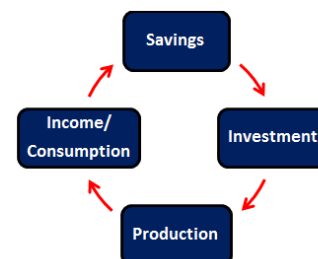
A virtuous cycle of investment:

The economic survey 2018-19 has found the **investment as the “key driver” that can create a self-sustaining virtuous cycle** in India. This investment can be both government investments in infrastructure, as well as private investments.

The Survey said the economy was always on disequilibrium — either on a virtuous or a vicious cycle. When the economy is in a virtuous cycle, investment, productivity growth, job creation, demand and exports feed into each other and enable it to thrive.

Especially private investment, is the “key driver” that drives demand, creates capacity, increases labour productivity, introduces new technology, allows creative destruction, and generates jobs. Capital investment fosters job creation, as capital goods production, research & development, and supply chains also generate jobs.

However, investment is risky entrepreneurs are exposed to the risk of business failure that leads to the loss of the invested capital. Therefore, savings have to increase more than investment to allow for the accumulation of precautionary savings.



The survey also finds that exports must form an integral part of the growth model because higher savings preclude domestic consumption as the driver of final demand. Domestic consumption can act as a force-multiplier when high income growth feeds consumption.

However, as currently the global market is extremely competitive, with the firms that are able to produce at the lowest costs having the ability to gain market share in exports. So, average productivity of firms in the economy becomes crucial to export competitiveness. Capital investment enhances total factor productivity, which in turn enhances export performance.

Key changes in Income Tax Act:

- The government has introduced a new Section called **194N** in income tax laws under which **cash withdrawals exceeding Rs. 1 crore in aggregate in a year** from banks, post offices or co-operative society engaged in carrying on the business of banking will attract a TDS. **Payments made on or after September 1, 2019 will attract the provisions of Section 194N.**
- The government has **amended 194-IA of the Income Tax Act** to include all charges of the nature of club membership fee, car parking fee, electricity or water facility fee, or any other charges of similar nature, which are incidental to transfer of immovable property, for levy of TDS. TDS is **levied @ 1%** if the value of the **property exceeds Rs. 50 lakh.**
- New Section called **194M** has been introduced under which individual is required to deduct **TDS @5%** for paying a sum in excess of Rs. 50 lakh for carrying out any work in pursuance of a contract or by way of fees for professional services during a financial year.
- A higher **TDS of 5%**, (from 1% earlier) will be levied if life **insurance maturity proceeds** received that are taxable in one's hands.
- Those **who don't have PAN can quote Aadhaar in transactions** that otherwise require quoting of PAN like cash deposit above Rs. 50,000.

Impact of the new changes:

- Tax concessions will bring investments in Make in India, boost employment and economic activity.
- Promote investment and growth.
- Tax net will be widened which results in more revenue to the government.
- Will make Indian companies globally competitive and helps in arresting economic slowdown.
- Corporate tax cuts will cost the government Rs. 1.45 lakh crore annually. This increases the chances of higher fiscal deficit and government may have to resort to spending cuts or embark on higher disinvestments.

Mould your thoughts:

Discuss the recent changes brought out in the Income tax Act. Does the tax cuts suffice the ongoing economic slowdown?

SCIENCE AND TECHNOLOGY

NATGRID

Source: The Hindu

Manifest pedagogy: It is one more issue which kindles the debate of Freedom Vs Security, or in specific Right to Privacy Vs Cyber Security. Until this issue sees climax, the debate will go on. Any new update or new angle to the issue has to be studied keeping Mains in mind.

In news:

- NATGRID wants to link social media accounts to central database

Placing it in syllabus:

- Social networking sites and Internal security

Static dimensions:

- Natgrid and the connected intelligence institutions

Current dimensions:

- Purpose of linking social media accounts
- Legal and Ethical issues
- Impact of the proposal

Content:

NATGRID:

- NATGRID is the **integrated intelligence grid** which connects databases of core security agencies.
- It was **conceptualised in 2009**, and said to be the brainchild of the then home minister P Chidambaram, who mooted the idea in the **wake of the 2008 Mumbai attacks**.
- It was **given clearance in 2011 by the Cabinet Committee on Security but execution had slowed down**.
- NATGRID **gathered pace in 2016**, when the government appointed an Intelligence Bureau (IB) officer Ashok Patnaik as the CEO.
- The collected comprehensive patterns of intelligence can be readily accessed by **10 intelligence agencies** (Research and Analysis Wing, Intelligence Bureau, Central Bureau of Investigation, Financial Intelligence unit, Central Board of Direct Taxes, Directorate of Revenue Intelligence, Enforcement Directorate, Narcotics Control Bureau, Central Board of Indirect Taxes and Customs and the Directorate General of GST Intelligence), with certain databases that would be procured from 21 organisations.
- It will not have a database of its own, rather it will have a **collated database connected with software**.

Purpose of linking social media accounts:

- The NATGRID project wants to link social media accounts to the huge database of records related to -
 - Tax and Bank account details
 - Credit card transactions,
 - Visa and Immigration records,
 - Itineraries of Rail and Air travel.
- Linking social media accounts will help to **track online terror-related information exchange through individual accounts, (e.g twitter handles)**
- **Online radicalisation** across the country can be curbed.

(Starting in 2014, cases surfaced of young **adults trying to join ISIS online**, without ever having face-to-face contact with a recruiter. In December 2014, Bangalore police arrested **Mehdi Masroor Biswas** for operating the Twitter account **@ShamiWitness**, an ISIS propaganda account that was considered one of the most influential ISIS Twitter handles.))

Legal and ethical issues involved:

- Intelligence agencies have felt it would **impinge on their territory** and possibly result in **leaks on the leads** they are working on with other agencies.
- The efficiency of the project is questioned as **no state agency or police force has access** to its database.
- Activists are claiming that it will cause a **breach of privacy for users**.

- Officials fear that linking social media accounts to sensitive government data could expose the system to “**Trojan attacks.**”

(A Trojan is a type of malware that is often disguised as legitimate software. Trojans can be employed by cyber-thieves and hackers trying to gain access to users' systems. Once activated, Trojans can enable cyber-criminals to spy, steal sensitive data, and gain backdoor access to one's system. Unlike computer viruses and worms, Trojans are not able to self-replicate.)

Impact of the proposal:

- The database, will ensure that amongst the innumerable suspects or terrorist, the **search will narrow down the results** to just two or three.
- **Answer** for every query, will be **obtained within seconds.**
- Natgrid will not only help to trace **the current location of the suspect but also aid in backtrack-ability.**
- Once fully functional, will help in **real-time tracking of a terror operative** or suspect.
- **Entire history of the suspect** will be before agency tracking the person. For instance, the identification of mobile number, his current status, bank balance, his travel destination etc..

Mould your thoughts:

Critically analyse the role of NATGRID in maintaining internal security of India.

National Supercomputing Mission

Source: The Hindu

Manifest pedagogy: India has lagged behind in the race of building supercomputers despite being a leader in the IT enabled services (ITES). Hence, National Supercomputing Mission is a step in the right direction. An aspirant has to envision this topic with a future utility.

In news:

- India plans to indigenously develop 60 supercomputers over the next three years.

Placing it in syllabus:

- Achievements of Indians in Science and Technology

Dimensions:

- National Supercomputing mission (NSM) and its phases
- C-DAC
- Prospects of supercomputing

Content: The 60 supercomputers to be developed indigenously will be implemented by the Centre for Development of Advanced Computing (C-DAC) and six machines will be installed by the end of the year.

National Supercomputing mission (NSM) and its phases:

- The government launched National Supercomputing Mission **to connect national academic and R&D institutions with a grid of over 70 high-performance computing facilities.**
- Estimated cost is Rs 4,500 crore in which Rs 2,800 crore will come from the **Ministry of Science and Technology** and the rest from Ministry of Electronics and Information Technology (**MeitY**).
- Jointly implemented by the Department of Science and Technology (**DST**) and **MeitY** and led by **C-DAC** and Indian Institute of Science (**IISc**), Bengaluru.
- The mission **supports the government's vision of 'Digital India' and 'Make in India'** initiatives.

In the **first phase** of the National Supercomputing Mission, **three supercomputer machines**, to be fully designed, manufactured and assembled in India are being installed at IIT (Banaras Hindu University), Indian Institute of Science, Education and Research (IISER), Pune and IIT, Kharagpur.

After a delay of more than three years, **French technology firm Atos** recently got a **₹4,500-crore contract** to build 70 supercomputers, manufactured and designed in India.

While the **first few supercomputers** under the contract will have all **imported parts**, Atos has

partnered with Indian contractors to **build most of the parts in facilities in Chennai and Pune.** In the **next phase**, supercomputers will not only be **manufactured but also be designed by CDAC in India.**

Eventually, CDAC plans to connect all the supercomputers to a common grid, which will allow any institute access to supercomputing power, making the common system among the fastest in the world.

- Hon'ble Prime Minister Narendra Modi recently inaugurated NSM's first indigenously built supercomputer '**Param Shivay**' at **Indian Institute of Technology, BHU, Varanasi.**
- The new Supercomputing Centre is equipped with the latest **Intel based processor, high memory compute nodes and with a peak computing power of 837 Teraflops.**

Applications:

- Improving weather services;
- Natural disaster prediction;
- Disaster simulation and management;
- Support computational biology;
- Drug discovery;
- Space ambitions;
- Molecular Dynamics;
- Discovery and extraction of new sources of oil and gas;
- Atomic Energy Simulations;
- National Security/Defence Applications;
- Big data analytics.

C-DAC:

- The **premier R&D organization** of the Ministry of Electronics and Information Technology (MeitY) for carrying out R&D in IT, Electronics and associated areas.

- Was set up in **1988** to build Supercomputers in context of denial of import of Supercomputers by USA.
- Since then C-DAC has been undertaking building of multiple generations of Supercomputer starting from **PARAM with 1 GF in 1988**.
- C-DAC then started building **Indian Language Computing Solutions** with setting up of GIST group (Graphics and Intelligence based Script Technology).
- **National Centre for Software Technology (NCST)** was set up in 1985.
- C-DAC started its education & training activities in 1994.
- C-DAC represents a unique facet working in close junction with MeitY (it's parent ministry) to realize nation's policy and pragmatic interventions and initiatives in Information Technology.

Prospects of supercomputing in India:

The supercomputer effort in India began in the late 1980s, when the US stopped the export of a Cray supercomputer because of continuing technology embargoes. In response, the Indian government set up the C-DAC which in 1990, unveiled the prototype of the **PARAM 800**, benchmarked at 5 Gflops, making it the second fastest supercomputer in the world at that time.

Today the USA's **Summit** is the fastest supercomputer in the world (in June 2018, US took away the top rank from China). The Chinese mastery of the wide range of technologies positions them well for winning the next races in supercomputers.

Supercomputers operating at such incredible speeds will encounter a variety of **barriers** like network and interconnectivity hardware, that previous generations of designers did not have to contend with. Similarly, the cooling system will become a central design constraint.

Hence India needs to focus on innovation as **supercomputer sector is innovation craving**. This is both a daunting barrier and an exciting opportunity for India. There are **several imperatives** if India is to regain some measure of competitiveness in this strategically vital sector.

- India must move away from the perspective that the application of supercomputers is more important than supercomputer technologies themselves.
- India must understand that it is possible to start from the current state of the art itself and there is no need to entirely retrace the path already taken by China and other countries(NSM is a major step in this regard).
- India has to understand that supercomputer research always requires fundamental research into the next stages of computing (e.g quantum computing which is still in the theoretical stage).
- Though NSM is a laudable first step, it needs to be followed up by the identification of clear objectives and allocation of adequate resources.
- Bureaucratic red tape should be avoided and scientists and engineers should be allowed to take bold and radical steps without fear of reprisal.

Supercomputers are strategic in the most important sense, namely, the creation of an ecosystem that extends well beyond the boundaries of science and technology and has the capacity to transform the country. However appropriate infrastructure – both digital as well as physical is very much needed. Hence for India to become a **knowledge-driven, multi-trillion-dollar economy**, which is able to support cutting-edge science, investment in supercomputing is a necessity.

As of June 2019, India was ranked **17th on the TOP500 list ranking** based on Rmax.

India's three systems on TOP500 list ranking are:

- **Pratyush** (Indian Institute of Tropical Meteorology) - **53rd rank**
- **Mihir** (National Centre for Medium Range Weather Forecasting) - **86th rank**
- **INC1 - Lenovo C1040** (Software Company (M)) - **428th rank**

Mould your thoughts:

- (1) Explain the importance of National Supercomputing mission(NSM). What are the prospects of supercomputing in India?

ENVIRONMENT

Swachhata Hi Seva movement

Source: The Hindu

Manifest pedagogy: Clean environment is fundamental to healthy living. India ranks poor in terms of standard of living. Creating awareness about cleanliness and good sanitation practises is very important for open defecation free (ODF) villages. Swachhata Hi Seva movement is an awareness drive. Its potential topic for mains.

In news:

- Recently PM Narendra Modi launched Swachhata Hi Seva movement, 2019.

Placing it in syllabus:

- Environmental conservation

Static dimensions:

- Need and significance of sanitation and clean environment

Current dimensions:

- Swachh Bharat Abhiyan (SBA)
- Swachhata Hi Seva movement (SHS)
- India and SDG 6
- Major policy decisions taken by the Government

Content: Need and significance of sanitation and clean environment:

Clean drinking water, hygiene, and sanitation play an important role in maintaining health. The **decline in water quality endangers the health of humans as well as the ecosystem.**

Contaminated water causes many **water-borne infections** like diarrhoea, and also serves as a carrier for vectors such as mosquitoes spreading epidemics. Open defecation means no sanitation. It **fouls the environment**, and spreads diseases.

Access to safe drinking water and good sanitation are vital for family well-being. It results in control of enteric diseases, and boosts child health. A healthy child has better learning and retaining ability.

Girls avoid going to school where there are no proper sanitation measures. Sanitation makes a positive contribution in family literacy. According to a **UNICEF study, for every 10 per cent increase in female literacy, a country's economy can grow by 0.3 per cent.** Thus, sanitation contributes to social and economic development of the society. Improved sanitation also helps the environment.

According to data from the **World Bank, in 2015, 44% of Indians defecated in the open.** And while this has decreased significantly (from 75% in 1990), since the launch of SBA, countries that are poorer than India, such as Bangladesh,

Pakistan and several sub-Saharan countries, have significantly lower open defecation rates.

Open defecation also partly explains why India lags behind developing countries on child health indicators such as nutrition and stunting.

While building more toilets has undeniably helped India's sanitation challenge, there needs to be a part of an integrated sanitation approach that includes water supply, water connections, and waste management.

Swachh Bharat Abhiyan (SBA)

Also called **Clean India Mission** was launched on the birth anniversary of Mahatma Gandhi on October 2, 2014 in New Delhi.

- **Covers 4041 statutory towns** across India and aims to make the streets, roads and infrastructure clean by October 2, 2019 (Mahatma Gandhi's 150th birth anniversary)
- The **urban component** of the mission is being implemented by the **Union Ministry of Urban Development.**
- The **rural component** of the mission will be implemented by the **Union Ministry of Drinking Water and Sanitation.**



Mission objectives

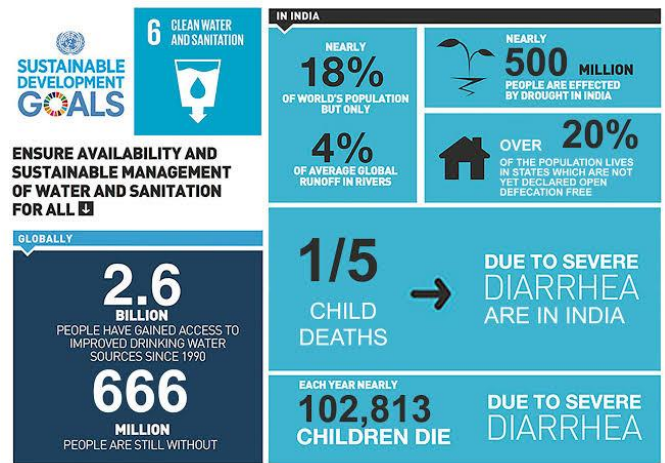
- Elimination of open defecation
- Eradication of Manual Scavenging
- Modern and Scientific Municipal Solid Waste Management
- To effect behavioral change regarding healthy sanitation practices
- Generate awareness about sanitation and its linkage with public health
- Capacity Augmentation for ULB's
- To create an enabling environment for private sector participation in Capex (capital expenditure) and Opex (operation and maintenance)

Swachhata Hi Seva movement:

- Honourable PM Narendra Modi launched Swachhata Hi Seva (SHS) 2019, a **massive countrywide awareness and mobilization campaign on Swachhata** at Mathura on September 11, 2019.
- Theme is '**plastic waste awareness and management**' is being organized from 11th September to October 2nd 2019, as the SBA is poised to dedicate an ODF India to Mahatma Gandhi on his 150th birth anniversary.
- The launch of SHS was organized jointly by the **central Departments of Animal Husbandry and Dairying and Drinking Water and Sanitation and the Government of Uttar Pradesh.**
- This year's Swachhata Hi Seva will see mass awareness generation activities on plastic waste management between 11th September to 1st October, **nationwide Shramdaan for plastic waste collection and segregation** on 2nd October.
- Recycling and effective disposal of the collected plastic waste from 3rd October to Diwali, 27th October 2019.
- The Prime Minister has written personal letters to all **Sarpanches and Swachhagrahis**, motivating them make the Swachhata Hi Seva 2019 a grand success.

India and SDG 6:

SDG 6: Ensure Availability and Sustainable Management of Water and Sanitation for all.



- The latest data from the Swachh Bharat Mission (SBM) portal suggests that **27 out of India's 36 states and Union territories are now open defecation free (ODF) with 98.6% of Indian households having access to toilets.**
- Number of villages which are open defecation free is over 72000.
- These are states with relatively high coverage, Uttarakhand, Punjab, Haryana, West Bengal and Gujarat.
- **Nadia**, a district in West Bengal was the **first district** in the country to be **declared ODF.**
- All northeast states except Assam also come in this category.
- Madhya Pradesh, Rajasthan, and Uttar Pradesh have achieved 100% sanitation coverage of rural households (proportion of households with toilets).

Recently, **the World Bank** provided a loan for \$1.5 billion called '**Programme for Results**'. It is a result based loan and goes to states which have delivered on some agreed upon indicators. It is an **index of village Swachta** and comprises of following **indicators**:

- Open Defecation Free (ODF)
- Have effective solid and liquid waste management (SLWM)
- Visually Clean

Major policy decisions taken by the Government:

- Mandatory purchase of power by the discoms produced out of the waste.
- Ministry of fertiliser has taken a decision to give about 1500 rupees per tonne of the city compost as market development assistance to encourage the compost and reduce the usage of chemical fertiliser.
- Bureau of Indian Standards has come out with the standards on Construction and

Demolition (C&D) waste for which the gazette notification has taken place.

- Counselling of the adolescent girls, menstrual hygiene management and particularly the production of low cost sanitary napkins.
- Village and sanitation committees shall be constituted as a part of sub-committee of gram - panchayat and 50% women participation. The money would be routed either through gram panchayats or through the water sanitation committees.

Mould your thoughts:

- (1) Explain the importance of sanitation in India's context. How have the government launched schemes fared in achieving sanitation and clean environment?