

**TOPIC 1**

## **DNA Based Technology (Use and Regulation) Bill, 2017**

### **Relevancy**

- GS Prelims, GS Mains paper
- DNA Based Technology, DNA profiling
- Criminal investigation
- DNA Bill, DNA Board, DNA Bank

### **Recently**

- The Law Commission of India submitted a draft of the DNA Based Technology (Use and Regulation) Bill, 2017 to the Union government.

### **What is DNA profiling?**

- DNA profiling is a term used for determining an individual's DNA characteristics using various technologies, called a DNA profile.
- It is different in unrelated individuals, therefore being as unique to individuals as are fingerprints.
- It is used for various purposes:
  - as a forensic technique in criminal investigations to identify an unidentified person or whose identity needs to be confirmed
  - to confirm a person at a crime scene or to eliminate a person from consideration
  - to help clarify paternity
  - in immigration disputes
  - in parentage testing
  - medical research

### **Need for DNA Based Technology (Use and Regulation) Bill**

- Currently there are no appropriate legal mechanisms with regard to identifying missing persons, victims of disasters, etc.

- This DNA Bill seeks to regulate human DNA profiling and establish standard procedures for DNA testing.
- The draft Bill suggests various measures to fortify the use of uncontaminated DNA samples for investigation purposes and for identifying missing persons.

### **Salient features of the Draft Bill**

- It includes the constitution of a statutory body called the DNA profiling board and a DNA data bank.
- Strict confidentiality will be maintained with regard to keeping records of DNA profiles and their use.
- The DNA profiles shall be shared with and by foreign governments or government organisations or agencies only for the purposes enumerated in the Act.
- Violators of the provisions will be liable for punishment of imprisonment which may extend up to three years and also a fine which may extend up to ₹2 lakh.

### **DNA profiling board**

- It will undertake functions such as laying down procedures and standards to establish DNA laboratories and granting accreditation to such laboratories.
- It will also advise the concerned Ministries/ departments of the Central and State governments on issues relating to DNA laboratories.
- It will also be responsible for supervising, monitoring, inspecting and assessing the laboratories.
- The Board will frame guidelines for training the police and other investigating agencies dealing with DNA-related matters.
- It will also pour advice on all ethical and human rights issues relating to DNA testing in consonance with international guidelines.
- It will recommend research and development activities in DNA testing and related issues.
- DNA profiling will be undertaken exclusively to identify a person and will not be used to extract any other information.

### **DNA data bank**

- It will be established both nationally and on a regional basis in the States.
- Bank will primarily store DNA profiles received from the accredited laboratories.
- It will maintain certain indices for 5 different categories and crimes with a view to assisting families of missing persons on the basis of their bodily samples and substances.
  - crime scene index
  - suspect index
  - offender index
  - missing persons' index
  - unknown deceased persons' index

### Merits of the bill

- **Consent:**
  - Section 21 prohibits the taking of samples from arrested persons without consent, except in the case of a specified offence - a specified offence being any offence punishable with death or imprisonment for a term exceeding seven years.
- **Deletion:**
  - Section 31 provides for instances for deletion of suspect profiles, under trial profiles, and all other profiles.
- **Purpose limitation:**
  - Section 33 limits the purpose of profiles in the DNA Data Bank to that of facilitating identification.
- **Destruction of samples:**
  - Section 20 provides for instances for destruction of DNA samples. It is important protection as it prevents samples from being re-analyzed.
- **Comparison of profiles:**
  - Section 29 clarifies that if the individual is not an offender or a suspect, their information will not be compared with DNA profiles in the offenders' or suspects index.
- **Re-testing:**
  - Section 24 allows for an accused person to request for a re-examination of fresh bodily substances if it is believed the sample has been contaminated.

### Critique of the draft bill

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- It is feared that DNA based highly specific information is heavily prone to misuse in the absence of tight measures to prevent leaks and misuse.
- The Board should also have included privacy experts, an expert in ethics, as well as civil society.
- Though the Bill defines instances of when DNA information can be made available, it fails to establish or refer to an authorization process for making information available and the decision currently seems to rest with the DNA Bank Director.
- The Bill creates a schedule containing a list of matters for DNA testing which includes civil disputes and matters that are vague and do not relate to criminal cases.
- There are no provisions in the bill defining a process for the examination of a crime scene and laying down standards for the chain of custody of a sample from the crime scene to a DNA laboratory.
- There are no provisions that ensure that notification is given to an individual if his/her information is accessed or made available.
- Also, there are no provisions that give the individual the right to challenge the storage of their DNA.
- There are no provisions that allow an individual to review his/her information contained in the regional or the national database.

### **Conclusion**

- If DNA profiling used wisely can bring major benefits to society by helping to convict serious criminals and to connect seemingly unrelated crimes and possibly even preventing crime.
- DNA profiling technology is not meant to replace other investigative techniques but to supplement them.
- It is better to adopt a law and improve upon it than to postpone it indefinitely.

## TOPIC 2

### India's role in Indo-Pacific Region

#### Relevancy

- GS Mains paper
- International relations, Indo-Pacific region

#### Introduction

- In the last few years Indo-Pacific region has come to be associated as the region where global fulcrum of power is shifting.
- The post-Cold war period has been experiencing a shift in wealth and power towards Asia.
- In 2012, for the first time in modern history, Asian states spent more on their armed forces than European ones.
- By 2030, 85% of global energy consumption is expected to come from the region spanning from the Eastern Coast of Africa through Indian Ocean and western and Central Pacific Ocean including.

#### India's role in Indo-Pacific

- With opening of economy, India has been connecting with its Indian Ocean neighbours and major maritime powers of the world.
- There has been a new reliance on the sea for energy and mineral resources.
- India has been engaging with regional actors on bilateral as well as multilateral framework.
- From Look East policy, there has been a graduation towards engage East policy with growing economic relations with the ASEAN, China, Japan and Australia.
- India is also in the mode of enhancing its maritime presence throughout the Indian Ocean Region.

- The proponents of the concept among the Indian policy makers defend India's role in 'Indo-Pacific' by stating that it preserves the 'strategic autonomy'.
- Strategic autonomy is a step ahead from the Non Alignment idea as it talks about giving "maximum options (to India) in its relations with the outside world".
- It is believed that the Indo-Pacific construct seeks to establish a plural, inclusive and open security architecture.
- This allows India to create a web of cooperative relations with all the stakeholders based on mutual interest and benefit.

### **US Response to India's role in Indo-pacific region**

- **Net security provider:**
  - India to preserve maritime transportation routes and global commons in the Indian Ocean.
  - US acknowledges the centrality of the Indian Ocean to global peace and security.
- **India's Act East policy:**
  - India realises the potential that the Indian Ocean offers to it, economically and strategically.
  - India's Act East policy involves strengthening its engagement in the Indian Ocean region.
  - India enjoys certain advantages in the region because of its centuries-old civilisational and cultural linkages with a number of countries.
  - The Indian Ocean Conference that is co-hosted by countries in the region like Sri Lanka, Singapore and India is steadily emerging as a forum for engagement of stakeholder countries.
  - This forum can help restore balance in the region.
- **As counter-balance to China:**
  - China's provocative actions in the South China Sea directly challenge the international law and norms that the United States and India both stand for.
- **India's regional ambitions:**
  - For India, its regional role involves managing relations with all the countries, including China, while at the same time adhering to basic principles like rule of law and freedom of navigation etc.

- Its regional ambitions are propelled by its security concerns on one hand and its trade and commerce imperatives on the other.
- India has come out of its shell of reticence and is proactively engaging in regional and global affairs.
- **Other security issues:**
  - Both countries recognise that non-traditional security issues in the region, such as terrorism, transnational crime, piracy, natural disasters and other challenges, can only be tackled through joint efforts and regional co-operation.
  - One example is the sub-regional co-operation between China, India, Burma and Bangladesh, which focuses on economic co-operation, as well as non-traditional security issues, such as narcotics.

### Conclusion

- Indo-Pacific is still finding its feet in the practice of world politics.
- For the American policymakers, Indo-Pacific seems to be an attempt to integrate India in an Asian architecture that seeks to serve US interests.
- The Indian side, however, has welcomed the concept because it provides space for India to follow its strategic autonomy.
- India can continue to engage with countries all across in flexible interactions and not form alliances.
- Indo-Pacific concept allows India to be a direct stakeholder rather than being an alliance partner of the US.

## TOPIC 3

### Sardar Patel's economic ideology

#### Relevancy

- GS Mains paper
- Sardar Patel, Economic ideology
- Economic revival of India

#### Sardar Patel

- Sardar Vallabhbhai Patel is known as “Architect of United India”, also he was having constructive views on modern economy.
- He dominated Indian politics from 1917 to 1950.
- At first he was at the forefront of the freedom struggle.
- Then after Independence in 1947, as Deputy Prime Minister, he held the crucial portfolios of Home, States and Information and Broadcasting.
- The ‘Iron Man’ and a founder of modern India, he restructured the Indian bureaucracy after the transfer of large number of officials to Pakistan, integrated the princely States into the Indian union, and had an important role in shaping the Indian Constitution.

#### Economic condition of India after Independence

- Immediate goal for the Government, industrialists and labour was to participate in a great national effort for recovery and reconstruction.
- The objective was to bring an improvement in the living standards of countrymen after the British took away prosperity of the nation.
- Imports remained severely restricted, and foreign currency earned from India's exports for the war had not been transferred by the Bank of England to the RBI.
- Therefore a sterling balance had accumulated, but war-damaged England did not settle the dues.

- Inflation was high and out of control.
- At Indian National Trade Union Congress (INTUC) session at Indore in May 1949, Sardar Patel declared his intention of rejuvenating the Indian economy.
- Partition added to the vulnerabilities and thus restoring business confidence was paramount.

### **His immediate contributions and economic ideology**

- **Self Sufficiency:**
  - Sardar also dissuaded Calcutta's worried businessmen who wanted to move out of the city to stay back.
  - The factories there had been dependent on jute grown in what was now Pakistan and Pak refused to honour agreements and cut supply.
  - Sardar Patel pushed for self-sufficiency especially in growing jute, cotton and the food grains.
- **Welfare state and Industrialisation:**
  - He envisaged for a welfare state, but realised that other countries had taken up the task at more advanced stages of development.
  - He was against socialism, and was of the view that industry ought to be the sole preserve of the business community.
  - Also he didn't believe in planning of the kind practised in the developed and industrialised countries.
- **Pro-Capitalism:**
  - To him, the profit motive was a great stimulant not a stigma.
  - He approved of it, and advocated it for even the non-capitalist classes, the middle classes, the labour and even the agriculturists.
- **Call of ethics while amassing wealth:**
  - He appealed for a higher sense of civic consciousness and national duty to transcend all motives.
  - According to him it was economically pragmatic to channelise wealth in economic undertakings, where the returns were certain to be richer.
- **Quick Industrialisation:**
  - He wanted fast development, the reason being to reduce dependence on external resources.

- A modern army required equipment that only machines could produce, apart from arms and ammunition, uniforms and stores, jeeps and motor cars, aeroplanes and petrol.
- **Primary sector revival:**
  - Being primarily a farming country agricultural revival was of primary importance.
- **Call for voluntary savings :**
  - He was a champion of investment-led growth.
  - He insisted on spending less, saving more, and investing as much as possible as the motto of every citizen.
  - To save every 'anna' that could be spared and to place their savings in the hands of the government for utilisation in nation-building enterprises.
- **Others:**
  - He also promised for no impediments, bottle-necks or red-tapism in the Government.

### Conclusion

- Sardar Patel's thoughts and approach to India's economic challenge were shaped by the historical setting at that time and also by his role of a nation-builder.
- Sardar Patel's approach was balanced, pragmatic and liberal.
- Economics was an "intensely practical science" for him as short cuts and arbitrary policies were not acceptable to him.
- He wanted Indian economy built on sound foundations of increased production, industrial and agricultural, and increased wealth.
- He always focussed on long term but a fast solution with continuous reforms.

## TOPIC 4

### Paryatan Parv and Ecotourism

#### Relevancy

- GS Prelims, GS Mains paper
- Ecotourism, Paryatan Parv
- Boosting tourism in India

#### Recently

- Ministry of Tourism has recently launched the Paryatan Parv celebrations.

#### What is Ecotourism?

- Ecotourism means to entertain visitors in a way that is minimally intrusive or destructive to the environment.
- It as well sustains and supports the native cultures in the locations it is operating in.
- Principles of Ecotourism are:
  - Minimize impact
  - Build environmental and cultural awareness and respect
  - Provide positive experiences for both visitors and hosts
  - Provide direct financial benefits for conservation
  - Provide financial benefits and empowerment for local people
  - Raise sensitivity to host countries' political, environmental, and social climate

- Support international human rights and labour agreements

### **Concerns regarding Ecotourism**

- Since last few decades there has been undue exploitation of nature in all its appearances.
- Rich forest areas and biological diversities have been continuously harmed to erect concrete walls.
- The continuous destruction of forest reserves has led to Global Warming and Greenhouse Effects.
- Fortunately after some realization the world has awoken for new beginnings about human responsibility towards nature which has culminated in the form of Ecotourism.

### **Ways to boost ecotourism in India**

- Communities should combat the environmental problems at tourist places by controlling the country's rate of development.
- A section of land should be reserved for maintaining natural environment at the places of tourism.
- Ministry of Tourism should take initiatives to boost eco-tourism in the country.
- Government should look into promoting Eco-Tourism, inter-alia through domestic and international campaigns.
- There should be regular seminars, conference and events focusing on development of Eco-Tourism in the country from time to time.
- Various events like "Paryatan Parv" draw focus on the benefits of tourism, showcasing cultural diversity and reinforcing the principle of 'Tourism for All'.

### **What is Paryatan Parv and its contributions?**

- The Paryatan Parv is a programme to showcase the cultural diversity of the country, showcasing folk and classical dance & music, handicrafts & handlooms and cuisine from all regions and States of the country.
- It is being organised by the Ministry of Tourism, in collaboration with other Central Ministries, State Governments and stakeholders.

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- The prime focus is on promoting travel to North Eastern State and Jammu & Kashmir.
- This event is designed to promote tourism at sites in all the states, nationwide.
- It will encourage people's participation at Pan-India level through exhibitions, handlooms, handicrafts, theatre, dance and music, etc.
- It will also help in Developing Rural Tourism in locations near established destinations and Skill development in tourism sector, etc.
- Under Paryatan Parv Union Ministry of External Affairs would organize outreach programmes in the overseas markets to encourage people to visit India.
- It will primarily lay its focus on Persons of Indian Origin who have never visited India.

### **Conclusion**

- India has very rich and diverse places to tour because of its geography.
- Few places like the Himalayan Region, Kerala, the northeast India, Andaman & Nicobar Islands and the Lakshdweep islands are some of the places where ecotourism can be given a substantial boost.
- By providing better conserved natural environment we can attract more tourists.