

**SOCIAL ISSUE****Dying Declaration**

Recently, a special Central Bureau of Investigation (CBI) court awarded two policemen life sentences for the custodial death of a murder accused on the basis of the 'Dying Declaration' made by the victim prior to his death. CBI is the premier investigating police agency in India. It functions under the superintendence of the Deptt. of Personnel, Ministry of Personnel, Pension & Public Grievances - which falls under the prime minister's office.

**Key Points****About:**

- Section-32(1) of Indian Evidence Act, 1872, defines dying declaration as a statement written or verbal of relevant facts made by a person, who is dead. It is the statement of a person who had died explaining the circumstances of his death. This is based on the maxim 'nemo mariturus presumuntur mentiri' i.e. a man will not meet his maker with a lie on his mouth.
- The general rule under Section 60 of the Act is that all oral evidence must be direct - he heard it, saw it or perceived it.

**Rules for Admission of Dying Declaration:**

- The grounds of admission under a dying declaration have been based on two broad rules:
  1. The victim being generally the only principal eye-witness to the crime.
  2. The sense of impending death, which creates a sanction equal to the obligation of an oath in a court.

**Recording Dying Declaration:**

- Anyone can record the dying declaration of the deceased as per law. However, a dying declaration recorded by a Judicial or Executive Magistrate will add an additional strength to the prosecution case. A dying declaration may in several cases be the "primary piece of evidence to prove the genesis of occurrence".
- The only requirement for such a declaration to be held perfectly accountable in court is for the victim to volunteer the statement and be of conscious mind. The person who records the dying declaration must be satisfied that the victim is in a fit state of mind.

**Situations Where Court Does Not Accept it as a Evidence:**

- Though a dying declaration is entitled to great weight, the accused has no power of cross-examination. This is the reason the courts have always insisted that the dying declaration be of such a nature as to inspire full confidence of the court in its correctness.
- The courts are on guard to check if the statement of the deceased was a result of either tutoring, prompting or a product of imagination.

**Need of Corroboration (Supporting Evidence):**

- Several judgments have noted that it is neither rule of law nor of prudence that dying declaration cannot be acted upon without corroboration. If the court is satisfied that the dying declaration is true and voluntary it can base conviction on it, without corroboration.
- Where a dying declaration is suspicious, it should not be acted upon without corroborative evidence because a dying declaration does not contain the details as to the occurrence. It is not to be rejected, equally merely because it is a brief statement. On the contrary, the shortness of the statement itself guarantees truth.

**Validity of Medical Opinion:**

- Normally the court, in order to satisfy whether the deceased was in a fit mental condition to make the dying declaration, can look up the medical opinion.
- But where the eye witness has said that the deceased was in a fit and conscious state to make this dying declaration, the medical opinion cannot prevail.

**GOVERNANCE****Surveillance Laws in India and Privacy**

Recently, a global collaborative investigative effort has revealed that, at least 300 individuals in India, were potentially identified for targeted surveillance using sophisticated spyware called Pegasus. However, the government has claimed that all interception in India takes place lawfully. Communication surveillance in India takes place primarily under two laws - the Telegraph Act, 1885 and the Information Technology Act, 2000. While the Telegraph Act deals with interception of calls, the IT Act was enacted to deal with surveillance of all electronic communication.

**Key Points**

### Telegraph Act:

- Under Section 5(2) of this law, the government can intercept calls only in certain situations:
  1. Interests of the sovereignty and integrity of India,
  2. Security of the state,
  3. Friendly relations with foreign states or public order,
  4. Preventing incitement to the commission of an offence.
- These are the same restrictions imposed on free speech under Article 19(2) of the Constitution.
- However, these restrictions can be imposed only when there is a condition precedent - the occurrence of any public emergency, or in the interest of public safety.
- Further, the grounds of selecting a person for surveillance and extent of information gathering has to be recorded in writing.
- This lawful interception cannot take place against journalists. Provided that press messages intended to be published in India of correspondents accredited to the Central Government or a State Government, unless their transmission has been prohibited under this subsection.
- **Supreme Court Intervention:** In *Public Union for Civil Liberties v Union of India* (1996), the SC pointed out lack of procedural safeguards in the provisions of the Telegraph Act and laid down following observations:
  1. Tapping is a serious invasion of an individual's privacy.
  2. It is no doubt correct that every Government exercises some degree of surveillance operation as a part of its intelligence outfit but at the same time citizen's right to privacy has to be protected.
- **Sanction for Interception:** The abovementioned Supreme Court's observations formed the basis of introducing Rule 419A in the Telegraph Rules in 2007 and later in the rules prescribed under the IT Act in 2009.
- 1. Rule 419A states that a Secretary to the Government of India (not below the rank of a Joint Secretary) in the Ministry of Home Affairs can pass orders of interception in the case of Centre, and similar provisions exist at the state level.

### IT Act, 2000:

- Section 69 of the Information Technology Act and the Information Technology (Procedure for Safeguards for Interception, Monitoring and Decryption of Information) Rules, 2009 were enacted to further the legal framework for electronic surveillance.
- However, the scope of Section 69 the IT Act is much broader and vague than the Telegraph Act as the only condition precedent for engaging electronic surveillance is for the "investigation of an offence".
- These provisions are problematic and offer the government total opacity in respect of its interception and monitoring activities.

### Associated Issues with the Surveillance:

- **Legal Loopholes:** According to the Centre for Internet & Society, the gaps in laws allow surveillance and affect privacy. For example: Ambiguity on issues like type of interception, granularity of information that can be intercepted and the degree of assistance from service providers helps in bypassing the law and aids surveillance by the state.
- **Affects Fundamental Rights:** The very existence of a surveillance system impacts the right to privacy (held by the SC in *K.S. Puttaswamy v. Union of India* case, 2017) and the exercise of freedom of speech and personal liberty under Articles 19 and 21 of the Constitution.
- **Authoritarian Regime:** The surveillance promotes spread of authoritarianism in the government functioning since it allows the executive to exercise a disproportionate amount of power on the citizen and impacts their personal lives.
- **Threat to Freedom of Press:** Current revelations over the use of Pegasus highlights that surveillance was also conducted on many journalists. This affects freedom of press.

### Way Forward

- There is a need for reforms in the Indian surveillance regime, which should incorporate ethics of surveillance and considers the moral aspects of how surveillance is employed.
- In this context, there is a need for a holistic debate before the Personal Data Protection (PDP) Bill, 2019 is enacted.
- So that the law can be tested against the cornerstone of fundamental rights and growth of the digital economy and security of the country can be balanced.

**INTERNATIONAL RELATION**

**Nord Stream 2 Pipeline**

Recently, the US has approved the Germany-Russia Nord Stream 2 Pipeline (NS2P) project - which significantly increases Europe's energy dependence on Russia. The US had previously imposed sanctions to prevent the completion of this gas pipeline between Russia and Germany.

**Key Points**

**About:**

- This is a 1,200-km pipeline that runs from Ust-Luga in Russia to Greifswald in Germany through the Baltic Sea. It will carry 55 billion cubic metres of gas per year.
- It was decided to build this pipeline in 2015.
- Nord stream 1 system is already completed and together with NS2P, it will supply 110 billion cubic metre of gas a year to Germany.

**Implications:**

- **EU's Dependence on Russia:** It will increase Europe's dependence on Russia for Natural Gas, currently EU (European Union) countries already rely on Russia for 40% of their gas needs.
- **Bypassing Ukraine:** There is an existing pipeline between Russia and Europe through Ukraine, once the NS2P project is completed it would bypass Ukraine and deprive it of a significant transit fee of around \$ 3 billion per year.
- **Geopolitical win for Russia:** It can be a generational geopolitical win for Russia and a catastrophe for the United States and its allies.

**US' New Stand:**

- **Softer Option to threaten Russia:**
- 2. The US has gone with the softer option of threatening Russia with consequences should it use the pipeline to harm Ukraine or other countries in eastern Europe.
- 3. On one hand, it wants access to Russia's hydrocarbons, but on the other distrusts Russian President Vladimir Putin, who it holds responsible for a series of affronts, such as the Crimean conflict of 2014 and the alleged interference in the US elections of 2016 and 2020.
- **Germany's own Act against Russia:** The US-Germany deal lays out that Germany by itself will put sanctions and limit Russian exports, if 'Russia attempts to use the energy as a weapon and commit further aggressive acts against Ukraine'.
- **Green Fund for Ukraine:** Germany has to "utilise all available leverage" to extend by 10 years the current Russia-Ukraine gas transit agreement. Germany also has to contribute at least \$175 million to a new \$1 billion "Green Fund for Ukraine" that aims at improving the country's energy independence.

**BIODIVERSITY & ENVIRONMENT**

**Genome of Salt-secreting Mangrove Species Decoded**

Recently, the scientists for the first time have decoded the reference-grade whole genome sequence of a highly salt-tolerant and salt-secreting mangrove species, *Avicennia marina*. This study was led by the Department of Biotechnology (DBT)-Institute of Life Sciences, Bhubaneswar.

**Key Points**

**Avicennia Marina:**

- It is one of the most prominent mangroves species found in all mangrove formations in India.
- It is a salt-secreting and extraordinarily salt-tolerant mangrove species that grows optimally in 75% seawater and tolerates >250% seawater.
- It is among the rare plant species, which can excrete 40% of the salt through the salt glands in the leaves, besides its extraordinary capacity to exclude salt entry to the roots.
- It is also referred to as grey mangrove or white mangrove.

**Significance of Study:**

- This study assumes significance as agriculture productivity globally is affected due to abiotic stress factors such as limited water availability and salinization of soil and water.
- 1. Availability of water is a significant challenge to crop production in dryland areas, accounting for 40% of the world's total land area.
- 2. Salinity is prevalent in 900 million hectares globally (with an estimated 6.73 million ha in India), and it is estimated to cause an annual loss of 27 billion USD.
- The genomic resources generated in the study will pave the way for researchers to study the potential of the identified genes for developing drought and salinity tolerant varieties of

important crop species of the coastal region that is significant for India with 7,500m of coastline and two major island systems.

## **Mangrove**

### **About:**

- A mangrove is a small tree or shrub that grows along coastlines, taking root in salty sediments, often underwater.
- The word 'mangrove' may refer to the habitat as a whole or to the trees and shrubs in the mangrove swamp.
- Mangroves are flowering trees, belonging to the families Rhizophoraceae, Acanthaceae, Lythraceae, Combretaceae, and Arecaceae.

### **Features of Mangroves:**

- **Saline environment:** They can survive under extreme hostile environments such as high salt and low oxygen conditions.
- **Low oxygen:** Underground tissue of any plant needs oxygen for respiration. But in a mangrove environment, the oxygen in soil is limited or nil. Hence the mangrove root system absorbs oxygen from the atmosphere.
- 1. Mangroves have special roots for this purpose called breathing roots or pneumatophores.
- 2. These roots have numerous pores through which oxygen enters the underground tissues.
- **Succulent leaves:** Mangroves, like desert plants, store fresh water in thick succulent leaves. A waxy coating on the leaves seals in water and minimises evaporation.
- **Viviparous:** Their seeds germinate while still attached to the parent tree. Once germinated, the seedling grows into a propagule. The mature propagule then drops into the water and gets transported to a different spot, eventually taking root in a solid ground.

### **Threat:**

- **Constructions:** At least one third of all mangrove forests has been lost during the last few decades. Coastal development, including construction of shrimp farms, hotels, and other structures, is the primary threat to mangroves. Mangrove forests are cleared to make room for agricultural land and human settlements.
- **Overharvesting:** Mangrove trees are used for firewood, construction wood, charcoal production, and animal fodder. In some parts of the world, there has been overharvesting which is no longer sustainable.
- **Others:** Overfishing, pollution, and rising sea levels are the other threats to mangrove forests and their ecosystem.

### **Area Covered:**

- **Global:** Mangroves can be found in over 118 countries and territories in the tropical and subtropical regions of the world.
- 1. Asia has the largest coverage of the world's mangroves, followed by Africa, North and Central America, Oceania and South America.
- 2. Approximately 75% of the world's mangrove forests are found in just 15 countries.

### **India:**

- According to the State of Forest Report 2019, mangrove cover in the country is 4,975 sq km, which is 0.15% of the country's total geographical area. Mangrove cover in the country has increased by 54 sq km (1.10%) as compared to the previous assessment (2017).
- The deltas of the Ganges, Mahanadi, Krishna, Godavari, and the Cauvery rivers contain mangrove forests.
- The backwaters in Kerala have a high density of mangrove forest.
- The Sundarbans in West Bengal is the largest mangrove region in the world and a UNESCO World Heritage Site. It spans from the Hooghly River in West Bengal to the Baleswar River in Bangladesh.
- The Bhitarkanika mangrove system in Odisha is India's second largest mangrove forest.
- Pichavaram in Tamil Nadu has a vast expanse of water covered with mangrove forests. It is home to many aquatic bird species.
- West Bengal has 42.45% of India's mangrove cover, followed by Gujarat 23.66% and A&N Islands 12.39%.

## **ECONOMICS**

### **RBI to Introduce Digital Currency**



The Reserve Bank of India (RBI) is working on a phased implementation strategy for its own digital currency and is in the process of launching it in wholesale and retail segments in the near future. A high-level inter-ministerial committee set up by the Finance Ministry had recommended Central Bank Digital Currency (CBDC) with changes in the legal framework including the RBI Act, which currently empowers the RBI to regulate issuance of bank notes.

### Key Points

#### Digital Currency:

- It is a payment method which exists only in electronic form and is not tangible.
- It can be transferred between entities or users with the help of technology like computers, smartphones and the internet.
- Although it is similar to physical currencies, digital money allows borderless transfer of ownership as well as instantaneous transactions.
- Digital currency is also known as digital money and cybercash.
- E.g. Cryptocurrency

#### Need:

- **Addressing the Malpractices:** The need for a sovereign digital currency arises from the anarchic design of existing cryptocurrencies, wherein their creation, as well as maintenance, are in the hands of the public. With no government supervision and ease of cross-border payments, renders them vulnerable to malpractices like tax evasion, terror funding, money laundering, etc. By regulating digital currency, the central bank can put a check on their malpractices.
- **Addressing Volatility:** As the cryptocurrencies are not pegged to any asset or currency, its value is solely determined by speculation (demand and supply). Due to this, there has been huge volatility in the value of cryptocurrencies like bitcoin. As CBDCs will be pegged to any assets (like gold or fiat currency) and hence will not witness the volatility being seen in cryptocurrencies.
- **Digital Currency Proxy War:** India runs the risk of being caught up in the whirlwind of a proxy digital currency war as the US and China battle it out to gain supremacy across other markets by introducing new-age financial products. Today, a sovereign Digital Rupee isn't just a matter of financial innovation but a need to push back against the inevitable proxy war which threatens our national and financial security.
- **Reducing Dependency on Dollar:** Digital Rupee provides an opportunity for India to establish the dominance of Digital Rupee as a superior currency for trade with its strategic partners, thereby reducing dependency on the dollar.
- **Advent of Private Currency:** If these private currencies gain recognition, national currencies with limited convertibility are likely to come under some kind of threat.

#### Significance:

- It would reduce the cost of currency management while enabling real-time payments without any inter-bank settlement.
- India's fairly high currency-to-GDP ratio holds out another benefit of Central Bank Digital Currency (CBDC) - to the extent large cash usage can be replaced by (CBDC), the cost of printing, transporting and storing paper currency can be substantially reduced.
- It will also minimize the damage to the public from the usage of private virtual currencies.

#### Issues:

- Some key issues under RBI's examination include, the scope of CBDCs, the underlying technology, the validation mechanism and distribution architecture.
- Also, legal changes would be necessary as the current provisions have been made keeping in mind currency in a physical form under the Reserve Bank of India Act.
- Consequential amendments would also be required in the Coinage Act, Foreign Exchange Management Act (FEMA) and Information Technology Act.
- Sudden flight of money from a bank under stress is another point of concern.

#### Recent Developments:

- El Salvador, a small coastal country in Central America, has become the first in the world to adopt Bitcoin, as legal tender.
- Britain is also exploring the possibility of creating a Central Bank Digital Currency (Bitcoin).

- In 2020, China started testing its official digital currency which is unofficially called “Digital Currency Electronic Payment, DC/EP”.
- In April 2018, RBI banned banks and other regulated entities from supporting crypto transactions after digital currencies were used for frauds. In March 2020, the Supreme Court struck down the ban as unconstitutional.

#### **Way Forward**

- The creation of a Digital Rupee will provide an opportunity for India to empower its citizens and enable them to use it freely in our ever-expanding digital economy and break free from an outdated banking system.
- Looking into its impact on macroeconomy and liquidity, banking systems and money markets, it is imperative of policymakers to thoroughly consider the prospects of Digital Rupee in India.

#### **IMPORTANT FACTS FOR PRELIM**

##### **UNESCO Delists Liverpool of Its World Heritage Status**

Recently, the city of Liverpool, England has been removed from UNESCO’s (United Nations Educational, Scientific and Cultural Organization) list of world heritage sites. Earlier six Indian places were added to the tentative list of UNESCO’s world heritage sites.

#### **Key Points**

##### **Liverpool:**

- The port city was included in the prestigious list for its architectural beauty and in recognition of its role as one of the world’s most important ports during the 18th and 19th centuries.
- It was named a World Heritage Site in 2004, joining cultural landmarks such as the Great Wall of China, the Taj Mahal, and the Leaning Tower of Pisa. The city is only the third place to be removed from the prestigious list.

##### **Reasons for Delisting:**

- The new buildings including a football stadium undermine the attractiveness of its Victorian docks and were destroying the heritage value of its waterfront.
- The over development would irreversibly damage the heritage of the historic port.

##### **Other Delisted Sites:**

- Wildlife sanctuary in Oman in 2007. Reason: poaching and habitat loss.
- Dresden Elbe valley in Germany in 2009. Reason: A four-lane motorway bridge was built over the river.

#### **DAILY ANSWER WRITING PRACTICE**

**Qns. There is a view that India is naturally a circular economy. In this context examine the opportunities and challenges in realizing the potential of India’s Circular Economy. (250 words)**

**Ans:**

##### **Introduction**

The WEF defines “a circular economy as an industrial system that is restorative or regenerative by intention and design. It replaces the end-of-life concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse and return to the biosphere, and aims for the elimination of waste through the superior design of materials, products, systems, and business models”.

##### **Body**

- The circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended.
- This is a departure from the traditional, linear economic model, which is based on a take-make-consume-throw away pattern. It relies on large quantities of cheap, easily accessible materials and energy.

##### **Principles of circular economy**

- The following ‘5R’ principles lie at the heart of achieving circularity in any product, process or service:
  1. **Reduce:** The emphasis is on achieving resource efficiency by prioritizing use of regenerative and restorative resources.
  2. **Reuse:** This encompasses two aspects – first is to reuse the useful parts / components of a product, wherever possible and second is to promote greater use of product-as-a-service through sharing platforms.

3. **Recycle:** Focus is on creating a closed loop system to utilize discarded material as a source of secondary resource, through extensive recycling.
4. **Re-manufacture:** To create new products by utilizing waste streams through cooperation and collaboration between multi-sector industry actors.
5. **Repair/refurbish:** The aim is to preserve and extend the life of a product that is already made by designing for the future

#### **Need for circular economy in India**

- **Rise in consumerism:** The robust economic growth coupled with rising household incomes have resulted in increased consumer spending, which is expected to reach USD 4 trillion by 2025. The rise in consumerism has led to more frequent replacement of assets on account of increased spending power and economies of scale.
- **High resource demand:** Increased domestic resource extraction due to urbanisation exerts increasing pressure on natural resources such as land, forest, air and water. At the current rate of growth of the economy, India's resource requirements are projected to be nearly 15 billion tonnes by 2030. Therefore, an urgent need for decoupling economic growth from resources, which can be achieved through a circular economy approach.
- **Import dependence:** India's dependence on the international market for accessing critical resources like rare earth minerals etc. due to shrinking reserves, technical constraints etc.
- **Waste creation:** The traditional linear economy approach results in massive waste generation at all stages of a product life cycle right from resource extraction, processing, value addition, consumption to end of life stage.

#### **Challenges:**

##### **Achievability**

- One challenge faced by the circular economy framework is related to the achievability of the concept.
- At the core of the framework, is the idea of designing out waste.
- If in certain sectors, such as manufactured goods, the vision can be globally implemented and materials be used longer, reused, before being dismantled and remanufactured, in other sectors however, existing limits might make it difficult to close the loop indefinitely: paper recycling is for instance limited to a certain number of cycles.
- Specific hazardous waste, such as mercury or asbestos might also reach a dead end as they cannot be recycled but must be contained off the cycle.

##### **Desirability**

- Beyond the question of achievability is the notion of desirability for businesses.
- In the current situation, trying to reach a 100% recyclability rate might prove counterproductive, if for instance, the price of recovery remains higher than the value of the materials recovered.
- Lack of incentives in the existing regulatory landscape does not necessarily make it desirable for all to pursue a circular economy objective.

##### **Social sustainability**

- Strongly rooted in environmental sustainability, the circular economy framework lacks an elaborated description of the social dimension of sustainability (e.g. the fulfilment of human needs, territorial implications).
- Its principles are primarily formulated from a business point of view that strive equally for environmental and economic benefits.
- Social benefits are often lacking.
- people's basic needs at a global level may still be further undermined by abuses of power, unhealthy or unfair labour and living conditions or a disrespect of human rights.
- As such, the circular economy framework does not necessarily fulfil all the dimensions of sustainability.

##### **Lack of strategic guidelines and standardisation**

- Currently, the circular economy framework does not provide specific criteria to support the selection of actions nor specific guidelines on how to implement the concept.
- As the implementation of circular economy varies significantly for different products and markets, the need for individualized or sectoral approaches makes it difficult to provide general guidelines.
- Moreover, engaging in a circular economy strategy may bring in difficult trade-offs.

##### **Way forward**

- Need for Legislation to promote the circular economy in the country. Several countries have recognised the centrality of the circularity as the new paradigm for sustainable development.
- Policies like Zero Effect, Zero Defect in manufacturing stage, National Electricity Mobility Mission Plan in consumption stage, and the various Waste Management Rules in disposal stage, if tweaked properly, can be the ideal for integrating circular economy into the fabric of the Indian economy.
- Ensuring the transition to circular economy call for extensive collaborative efforts between key stakeholders, including regulators, policy makers, corporates, and financial institutions would need to work to adopt circular business models.
- Adequate financing needed for realization of these newer opportunities through innovative financing instruments, such as green bonds, municipal bonds, SDG-aligned bonds.

### Conclusion

India has immense resources — people, capital, supply chains and scale — to find value in waste. A billion-dollar-valued circular economy unicorn can indeed emerge if technology, finance, policy and behavioural change could create markets where none existed.

### DAILY QUIZ

Q1. Consider the following statements about the Adarsh Smarak scheme::

It is being implemented by Archaeological Survey of India (ASI).

The civic amenities are being augmented at the protected sites under the scheme.

Which of the given above statements is/are correct?

- (a) 1 only (b) 2 only  
(c) **Both 1 and 2** (d) Neither 1 nor 2

Q2. Which of the following pairs is/are correctly matched?

Nagarjunakonda: Telangana

Salihundam: Andhra Pradesh

Lepakshi: Odisha

Select the correct answer using the code below:

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

Q3. Consider the following statements about the 'Historic Urban Landscape' Approach:

It was adopted in 2011 at United Nations General Assembly Conference.

It is an approach to the management of heritage resources in dynamic and constantly changing environments.

Which of the given above statements is/are correct?

- (a) 1 only (b) **2 only**  
(c) Both 1 and 2 (d) Neither 1 nor 2

Q4. Consider the following statements:

H5N1 is the most common form of bird flu.

H5N1 has not infected any humans worldwide to date.

Which of the given above statements is/are correct?

- (a) **1 only** (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2

Q5. With reference to India's Man Portable Anti-Tank Guided Missile, consider the following statements:

It is a third-generation fire-and-forget anti-tank guided missile.

It has strike range of 25 km.

Which of the given above statements is/are correct?

- (a) **1 only** (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2