

Examples of Ethics**Example 1: Longevity India Initiative**

- The Indian Institute of Science (IISc) has launched the 'Longevity India Initiative' to promote healthy ageing by researching overcoming challenges associated with growing older.
- The initiative focuses on identifying early disease indicators, researching ageing biomarkers, and developing new therapeutics and technologies.

Ethical Values exhibited by the Initiative are:

- **Respect for Human Dignity:** By challenging the idea that ageing is inevitable and aiming to increase human health span.
- **Collaboration and Partnership:** The involvement of multiple stakeholders, including researchers, clinicians, industry partners, philanthropists, and civil society.
- **Equity and Inclusivity:** By considering factors like lifestyle and culture, especially in a diverse country like India.
- **Responsibility and Accountability:** The initiative recognizes the urgency of addressing the growing burden of ageing in the country and emphasizes the need for diverse stakeholders to come together and take responsibility for developing solutions.

Example 2: Misuse of Public Money by three IAS officers

Three senior IAS officers from the Chandigarh Administration made unauthorized expenditures of over Rs 6 lakh during a trip to Paris in 2015. The recent audit report highlighted that they changed hotels and overstayed for a meeting meant for a lower-ranking official.

The ethical issues highlighted in this case:

- **Misuse of Authority:** The senior IAS officers misused their authority by making unauthorized expenditures and changing the purpose of the trip to Paris.
- **Financial Impropriety:** The officers incurred unauthorized expenses amounting to over Rs 6 lakh, which were not justified and did not follow proper procedures.
- **Lack of Transparency:** The officers did not obtain proper approvals or certificates regarding the visit, and the purpose of the trip was misrepresented.
- **Breach of Trust:** By overstaying and switching hotels without proper authorization, the officers breached the trust placed in them by the government and taxpayers.
- **Violation of Norms:** The officers exceeded the allowed duration for foreign travel, did not obtain necessary approvals, and disregarded established norms and procedures.

Example 3: Nestle infant milk in poorer countries has a higher sugar content compared to developed countries.

Public Eye, a Swiss investigative organization, along with the International Baby Food Action Network, uncovered this issue. The World Health Organization (WHO) warns that early exposure to sugar can lead to a lifelong preference for it, heightening the risk of obesity and other chronic diseases.

Ethical Issues in this case:

- **Health Impact:** Higher sugar content in infant milk can lead to health issues such as obesity and chronic illnesses, especially considering the vulnerability of infants.
- **Transparency:** There's a lack of transparency regarding the nutritional content of Nestle infant milk, particularly in poorer countries
- **Targeting Vulnerable Populations:** Marketing products with higher sugar content to poorer countries, where health resources and education might be limited, can be seen as exploitative and unethical.
- **Equity:** Discrepancies in sugar content between products sold in different countries can raise questions about equity and fairness in access to healthier nutritional options.
- **Breach of trust:** Selling an inferior product breaches consumer trust.

Regulations: The Codex Alimentarius sets global standards for food safety and quality, established by the joint effort of the Food and Agriculture Organization and WHO. In India, the Food Safety and Standards Act 2006 defines regulations and establishes the Food Safety and Standards Authority of India as the apex regulatory body for ensuring food safety and quality.

MAJOR CROPS AND CROPPING PATTERN[GS3]**Issues With The Sugarcane Cultivation**

Sugarcane growers in India are facing extreme uncertainty. With the new sugar year's crushing season set to begin in October, mills still owe sugarcane growers around Rs 3,000 crore for cane purchased back in

2013-14. The article highlights the need for paying more attention to sugarcane rather than sugar, by acknowledging its untapped potential.

Economic and ecological importance of cultivation of sugar cane

- 1) High yields- Cane has a higher yield as compared to other crops. For ex- Even the top Punjab farmer can only harvest around 5-6 tonnes of wheat and 8-9 tonnes of paddy whereas the least successful sugarcane grower in Uttar Pradesh can yield around 40 tonnes. Thus, sugarcane, uses less water per day and even less for every unit weight of biomass produced. This is because it exhibits “C4 photosynthesis” which is a more efficient mechanism of deploying solar energy to convert atmospheric carbon dioxide and water into plant matter.
- 2) Meeting fodder needs– The green top-leaves of sugarcane meet most of the fodder needs for Uttar Pradesh farmers in winter and spring and is highly efficient at carbon sequestration.
- 3) Electricity generation- The high-pressure boilers used in modern sugar mills can generate around 130 kilowatt-hours of electricity from every tonne of cane that is, 300 kg bagasse or 660 kg steam.
- 4) Renewable source of energy– The largest component of sugarcane, that makes up about 30% of its weight, is bagasse. It’s the fibrous material left over after the juice is extracted and is a valuable source of biofuel.
- 5) Production of alcohol- Molasse is the leftover juice after extraction of the maximum possible sugar from three cycles of boiling and crystallization. This non-recoverable sugar in the molasses gets fermented into alcohol.

Problems faced by sugarcane Cultivators:

- 1) Pseudo-environmentalists -There is no awareness about C4 carbon fixation ability of sugarcane. It is often presented as a water guzzling crop, threatening the availability of water for other crops.
- 2) Obsession with sugar-There is too much importance given to the production of sugar from sugarcane. This is despite the fact that it makes up just 10 % of the cane in terms of recovery during processing.
- 3) Overlooking bagasse-based generation of electricity– Bagasse-based electricity generation is mentioned incidentally, whereas more importance is given to wind and solar energy. However, sugar mills have installed around 2,700 MW of grid-interactive capacity producing real and reliable power.
- 4) Lack of robust policy– Centre does not have a robust ethanol-blending programme. In Brazil, ethanol is used for either a 25% blend with petrol or as 100% hydrous spirit for flex-fuel vehicles, but India is not properly implementing even a 5% blend.
- 5) Role of State governments- The UP government sets aside 34% of molasses produced by mills for supplying to country liquor makers. This implies that while cane farmers don’t get paid, country liquor makers get subsidized molasses.

PRELIM FACT

1. First Time Vote By Shompen Tribe

For the first time, members of the Shompen, one of the Particularly Vulnerable Tribal Groups (PVTGs) in India took part in the election process by casting their votes in the Andaman and Nicobar Lok Sabha constituency.

Shompen Tribe:

- These are the indigenous people of the interior of Great Nicobar Island.
- They are designated as a PVTG within the list of Scheduled Tribes.

Characteristics:

- They are one of the most isolated tribes.
- They are semi-nomadic hunter-gatherers.
- Their main sources of livelihood are hunting, gathering, fishing, and a little bit of horticultural activities in a rudimentary form.

Population: The estimated population of Shompen was 229 as per the 2011 Census data.

Language Known: They speak their own language, which has many dialects. Members of one band do not understand the dialect of the other.

Social structure: The family is controlled by the eldest male member, who controls all activities of the women and kids.

- Monogamy is the general rule, although polygamy is allowed too.
- The Shompen habitat is also an important biological hotspot and there are two National Parks and one Biosphere Reserve namely:

- Campbell Bay National Park
- Galathea National Park and
- Great Nicobar Biosphere Reserve

About Particularly Vulnerable Tribal Groups (PVTGs):

- These groups are among the most vulnerable sections of India as they are few in numbers.
- 75 such groups have been identified and categorised as PVTGs.
- Among the 75 listed PVTG's the highest number are found in Odisha.

Characteristics: There are certain tribal communities who have:

- Declining or stagnant population
- Low level of literacy
- Pre-agricultural level of technology
- Economically backward

Others: In 1973, the Dhebar Commission created Primitive Tribal Groups (PTGs) as a separate category, which are less developed among the tribal groups. In 2006, the Government of India renamed the PTGs as PVTGs.

2. Srinagar (considered for World Craft City)

Srinagar is being considered for the prestigious World Craft City (WCC) title by the World Crafts Council International (WCCI).

Arts and Crafts of Srinagar City:

- **Pashmina shawls** : Luxurious woollen shawls made from the wool of Pashmina goats are known for their softness and warmth.
- **Carpets** :Hand-woven carpets featuring intricate designs and vibrant colours, often showcasing traditional motifs.
- **Papier mâché** :Decorative objects crafted using molded and painted paper pulp.
- **Walnut wood carving** : Beautiful furniture pieces, decorative panels, and small items such as boxes and bowls.
- **Hand-knotted carpets** : Meticulously handcrafted carpets with elaborate patterns and designs, made using traditional techniques passed down through generations.
- **Kani shawls**: shawls are woven using the Kani technique, where each thread is individually looped and woven into the fabric, creating intricate patterns and designs.
- **Khatamband (wooden ceiling)**:Traditional woodwork features intricate geometric patterns and designs, commonly seen in ceilings and architectural features.
- **Sozni embroidery**:Delicate embroidery is done with fine needlework, embellishing fabrics with intricate patterns and motifs.
- **Crewel embroidery**:Embroidery style using wool threads to create elaborate designs on fabrics like cotton or silk (typically features floral motifs)

About WCC:

The World Craft City (WCC) initiative was launched in 2014 by the World Crafts Council International (WCCI), a Kuwait-based organization. It acknowledges the contributions of local authorities, craftspeople, and communities to cultural, economic, and social development worldwide. WCC aims to establish a network of craft cities globally, promoting the principles of the creative economy and preserving traditional crafts.

3. Supreme Court judgment on Forests as a national asset

Recently, in a judgement the Supreme Court has asserted that forests in India are a national asset and a major contributor to the nation's financial wealth.

About the judgement

1. This judgment is particularly relevant given the ongoing controversy surrounding the Forest Conservation (Amendment) Act of 2023 (FCAA)
2. Highlighting the role of forest, the court held that concepts of carbon credit and green accounting to evaluate a nation's wealth had become a reality.
3. A country with surplus forest cover can sell its additional carbon credits to those lacking in forests. This underlines the significance of forests in contributing to the financial wealth of a country.
4. The judgment said India's forests serve as a major sink of carbon dioxide (CO₂).

The value of mitigation has put a conservative value of \$5 per tonne of CO₂ locked in our forests, this huge sink of about 24,000 mt of CO₂ is worth \$120 billion, or ₹6 lakh crores.

Protective role of forests against climate change

1. The court referred to a 2022-2023 report of the Reserve Bank of India on the macroeconomic impact of climate change and changing patterns of rainfall.
2. These factors could cost the economy 2.8% of its GDP and depress the living standards of nearly half of its population by 2050.

4. Global Alliance for Incinerator Alternatives (GAIA) Asia Pacific

The Global Alliance for Incinerator Alternatives (GAIA) Asia Pacific has called on the ASEAN to take decisive action in response to plastic pollution.

Global Alliance for Incinerator Alternatives (GAIA) Asia Pacific

1. This is a global network of over 1,000 grassroots groups, non-profits, and individuals.
2. It aims to power a transition away from our current linear and extractive economy and towards a circular system which supports people's right to a safe and healthy environment.
3. Their vision is a fair, zero-waste world that honors ecological boundaries and community rights, ensuring people are not harmed by toxic pollution and that resources are conserved responsibly rather than discarded or incinerated.
4. Their efforts include combating pollution and promoting regenerative practices in urban areas through local advocacy, policy and financial changes, research, public communication, and coalition-building.
5. They focus on four main areas: stopping incineration, achieving zero waste, reducing plastic use, and tackling climate issues.

About Incineration

1. Incineration is a waste treatment method that burns waste material.
2. Facilities that perform this are often called waste-to-energy plants because they convert waste into energy.
3. This process can reduce the amount of waste significantly, usually decreasing solid mass by 80-85% and volume by 95-96%, depending on what the waste is made of and whether materials like metals are recovered from the ashes for recycling.
4. Despite its effectiveness, incineration has raised environmental concerns, particularly with older facilities that may not have had effective gas cleaning or combustion controls.
5. Contemporary waste-to-energy plants focus on being safe, efficient, and environmentally friendly.

5. Sweden Becomes 38th Country to Join Artemis Accords

Recently, Slovenia & Sweden became the 39th & 38th Countries to sign Artemis Accords respectively.

About Artemis Accord:

- It is a US-led alliance seeking to facilitate international collaboration in planetary exploration and research.
- It relates to activities in orbit, on the surface, and in the subsurface of the moon, Mars, comets, and asteroids.
- It also covers the stable orbital points known as the Lagrangian points for the Earth-moon system).
- Established by: It was launched on October 13, 2020 with Australia, Canada, Italy, Japan, Luxembourg, the United Arab Emirates, the United Kingdom and the United States.
- Members:
- The Accords have been signed by 39 countries till now.
- On June 21, 2023 India became the 27th country to sign the Artemis Accords.
- China and Russia are not part of this initiative.

Key Principles of Artemis Accord: These are a non-binding set of principles designed to guide civil space exploration and use in the 21st century.

- **To affirm the countries comply with**
- 1967's Outer Space Treaty,
- Rescue and Return Agreement 1968(which emphasizes the responsibility of nations to safely return astronauts),
- 1972's Liability Convention and
- 1975's Registration Convention.
- Peaceful Exploration of Space: All activities must be conducted peacefully in line with international law.
- Transparency: Signatories must be transparent about their activities and share scientific information openly.

- Interoperability: Nations should develop systems that can work together to enhance safety and sustainability.
- Emergency Assistance: Commitment to assisting personnel in distress in outer space.
- Registration of Space Objects: Agreement on registering relevant space objects.
- Preserving Heritage: Commitment to preserving historic sites and artifacts in space.
- Space Resources: Affirmation of the importance of extracting and utilizing space resources, with transparency to the international community.
- Deconfliction of Activities: Prevention of harmful interference and establishment of safety zones.
- Orbital Debris Management: Planning for the safe disposal of debris and limiting the generation of new debris.

ANSWER WRITING

Q. What are the recent changes in India's EV policy, such as the relaxation of import duties or companies investing in domestic manufacturing? Analyze their potential impact on attracting foreign investment and fostering domestic EV production.

In recent times, India has taken significant strides towards establishing a robust Electric Vehicle (EV) ecosystem, catalyzed by a series of policy shifts and incentives aimed at both domestic and foreign stakeholders. The interim budget for 2024-25 has introduced several key initiatives designed to accelerate the EV revolution in India, reflecting a clear government intention to promote cleaner, more sustainable modes of transportation in alignment with global environmental objectives and India's commitment to a carbon-neutral future by 2070.

Key Policy Changes and Investments

- Manufacturing and Infrastructure Support: The government has emphasized the importance of enhancing the manufacturing capabilities for EVs and their components, including the crucial aspect of charging infrastructure. This includes not only the physical manufacturing of EVs but also extends to the components that are vital for their operation, such as batteries, especially lithium-ion cells.
- Expansion of Charging Infrastructure: Recognizing the critical barrier that insufficient charging infrastructure poses to EV adoption, the government has pledged to undertake significant steps to expand the number of charging stations. This move is designed to ease the concerns associated with long-distance travel with EVs, thus encouraging more consumers to make the shift from conventional to electric vehicles.
- Support for E-bus Adoption: A notable focus has been placed on public transportation, with initiatives aimed at incentivizing the adoption of electric buses. This approach not only promotes the use of cleaner energy but also addresses the broader goal of reducing carbon emissions in densely populated urban centers.
- Secure Payment Mechanisms for E-buses: The introduction of secure payment mechanisms for e-buses is anticipated to overcome one of the key hurdles to public acceptance, thereby smoothing the path for a broader transition to electric public transportation systems.

Impact on Foreign Investment and Domestic Production

- The cumulative effect of these policy changes and investments is expected to significantly enhance India's attractiveness as a destination for foreign investment in the EV sector.
- By establishing a comprehensive support system for the EV ecosystem, the government is signaling a clear commitment to the sector's growth.
- This, in turn, provides a stable environment for foreign investors looking to enter or expand within the Indian market.
- Simultaneously, the emphasis on domestic manufacturing and infrastructure development is poised to catalyze the growth of indigenous EV production.
- This dual approach not only aims to meet domestic demand but also positions India as a potential hub for EV manufacturing on the global stage.
- The focus on developing a robust charging infrastructure further alleviates a key operational concern for both consumers and producers, thus enhancing the overall viability of EVs in the country.

The recent changes in India's EV policy and the strategic investments in domestic manufacturing and infrastructure signify a comprehensive effort to align the country's automotive sector with global sustainability trends. These initiatives are likely to attract significant foreign investment, foster innovation, and promote the development of a self-sustaining EV ecosystem in India. As the country moves forward, the continuous evolution of these policies will be crucial in maintaining momentum towards achieving a

greener, more sustainable transportation network that aligns with India's long-term environmental and economic goals.

MCQs

1. Consider the following statements:
 1. The World Craft City (WCC) initiative was launched in 2014 by the United Nations Educational, Scientific and Cultural Organization (UNESCO).
 2. Recently, UNESCO has identified Srinagar as a potential candidate for the prestigious World Craft City (WCC) designation from India.
 Which of the statements given above is/are correct?

(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) **Neither 1 nor 2**
2. Consider the following statements:
 1. The Artemis Accords are a treaty signed by several countries to establish a framework for international cooperation in lunar exploration.
 2. The Artemis Accords focus solely on the protection of historical lunar landing sites and artifacts.
 3. The Artemis Accords were established by the United Nations to govern all space exploration activities.
 How many of the statements are correct?

(a) **Only one** (b) Only two
(c) All three (d) None
3. Which of the following statements best describes the difference between cruise missiles and ballistic missiles?

(a) Cruise missiles follow a curved trajectory, while ballistic missiles follow a straight trajectory.
(b) Ballistic missiles are guided throughout their flight, while cruise missiles are unguided.
(c) Cruise missiles are launched from submarines, while ballistic missiles are launched from aircraft.
(d) **Cruise missiles are jet-propelled at subsonic speeds throughout their flights, while ballistic missiles are rocket-powered only in the initial phase of flight.**
4. Which one of the following is the name of the engine technology used in the BrahMos missile?

(a) **Ramjet engine**
(b) Turbofan engine
(c) Nuclear jet engine
(d) Pulse Detonation Engine (PDE)
5. Which one of the following is unique about the "Shompen tribe's" lifestyle compared to other tribal communities in India?

(a) **They are primarily hunter-gatherers.**
(b) They practice settled agriculture.
(c) They are nomadic herders.
(d) They live in urban areas.
6. Recently, Ooragutta region of Telangana has been in news for:

(a) Images of the mesolithic period
(b) **Discovery of Iron Age megalithic evidences**
(c) Oldest and the largest crater impacted zone
(d) A sanctuary for the conservation of spix macaw
7. With reference to Brahmos, consider the following statements:
 1. It is a long-range nuclear-capable hypersonic cruise missile system.
 2. BrahMos has been jointly developed by India and Russia.
 3. It can be launched only from land and air.
 4. It uses stealth technology and a "Fire and Forget" principle of operation.
 How many of the above statements are correct?

(a) Only one (b) **Only two**
(c) Only three (d) All four
8. With reference to Coral Bleaching, consider the following statements:
 1. Coral bleaching is a phenomenon in which the symbiotic relationship between algae (zooxanthellae) and the host corals breaks down.
 2. Coral bleaching immediately led to the death of corals.
 3. Recently, the US National Oceanic and Atmospheric Administration (NOAA) has confirmed a third global mass coral bleaching event is underway.
 How many of the above statements are correct?

(a) **Only one** (b) Only two
(c) All three (d) None
9. Consider the following statements:
 1. A quasi-judicial commission is a judicial body that operates within the traditional court system.
 2. A quasi-judicial commission provide a more informal and accessible dispute resolution process over traditional courts.
 3. The powers of a quasi-judicial commission are usually limited to a specific area of expertise.
 4. The National Consumer Disputes Redressal Commission (NCDRC) is a quasi-judicial commission.
 How many of the statements given above are correct?

(a) Only one (b) Only two
(c) **Only three** (d) All four
10. Which one of the following statements is not correct about Freedom?

(a) It enables one to pursue one's interests.
(b) It allows the individual's creativity, sensibilities, and capabilities to fully develop.
(c) **It is the total absence of any kind of constraint or restriction.**
(d) It permits the exercise of the individual's powers of reason and judgment.