

#### SCIENCE AND TECHNOLOGY

#### **Government Policies and Interventions**

#### **Liquor Policy: Issues in the Liquor Industry**

High taxes and excessive licensing in the liquor industry contribute to corruption and financial burdens on consumers.

Indian Constitution views alcohol as an undesirable evil to be regulated. The Directive Principles of State Policy (Article 47) encourage the prohibition of alcohol consumption, except for medicinal purposes, aiming to protect citizens' health. While not legally enforceable, these principles guide state action. Additionally, alcohol regulation falls under the authority of state legislatures according to the Seventh Schedule, allowing for varying laws across states, from prohibition to private sale.

#### Distribution of Power on Liquor Control in India:

#### 1.Central Government:

- 1. Sets guidelines for import duties on foreign liquor.
- 2. Formulates national-level policies regarding alcohol advertising and marketing.

#### 2.State Governments:

- 1. Liquor falls under the State List (List II) of the Seventh Schedule
- 2. Impose state-specific excise duties and taxes on liquor sales.
- 3. Issue licenses for liquor sales and distribution within the state.
- 4. Set regulations on liquor sales, including permitted operating hours for liquor stores and bars.
- 5. Introduce prohibition laws in certain states (e.g., Gujarat and Bihar).
- 6. Allow liquor sales through government-owned outlets (e.g., TASMAC in Tamil Nadu).
- 7. Implement online liquor sales and home delivery services (e.g., Maharashtra and Delhi).

### Approaches to alcohol policy vary across states:

- 1. Revenue-Driven Policies: States like Haryana and Delhi prioritize revenue from alcohol sales, leading to the widespread availability of liquor outlets.
- 2. Socio-cultural Factors: Gujarat maintains prohibition due to cultural and historical reasons while Bihar has prohibition due to socio-economic factors.
- 3. Government Control for Safety: Tamil Nadu regulates alcohol sales through its State Marketing Corporation to enhance safety, particularly in response to past hooch tragedies.

#### What is the Delhi liquor policy scam?

The Delhi Liquor Scam involves allegations of corruption and favouritism in the implementation of Delhi's Excise Policy from 2021 to 2022. The policy aimed to reform the liquor sector by introducing private firms, but accusations claim it favoured certain companies with waivers, fee reductions, and multiple licenses. The AAP government denies any wrongdoing, citing increased revenue similar to policies in Punjab. However, the policy faced obstacles, including resistance from bureaucrats and the LG's directive to halt implementation, leading to its withdrawal.

# Issues with Current Liquor Laws in India

- Excessive Taxation: India's liquor taxes are extraordinarily expensive, frequently exceeding 200% domestically and 150% for customs charges, burdening customers financially.
- Impact on Health: High taxes encourage customers to buy lower-quality, cheaper alcohol, raising health hazards, particularly among low-income individuals.
- State Revenue Dependence: States rely heavily on alcohol taxes for revenue, but Bihar's prohibition demonstrates that alternatives exist for state financing.
- Complicated Tax Structure: Liquor is not subject to the <u>Goods and Services Tax (GST)</u>, which complicates the tax system. Including it could simplify taxation and bring it in line with other items like cigarettes.
- Government Monopoly in Sales: Current rules frequently result in government monopolies on spirits sales, which can encourage corruption and create impediments for private firms.
- Licence Requirements: The license requirements on serving liquor at eateries and social gatherings can be literally taxing, restrictive, and harassing.

## Actionable steps to address alcohol policy issues:

- Include Liquor in GST: Simplify taxation by bringing liquor under GST, similar to cigarettes, for a streamlined tax process.
- Encourage Private Distribution: Transition from government monopolies to private liquor distribution, regulated for safety and age restrictions, to reduce corruption and promote business diversity.
- Reform Licensing Policies: Simplify licensing procedures for liquor sales in public spaces to reduce bureaucratic obstacles and foster a healthier business environment.
- National Health-Focused Policy: Develop a national alcohol policy prioritizing public health over revenue, aligned with the WHO's recommendation of minimizing alcohol consumption.

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- Legislative Action on Advertising: Enforce stricter regulations to ban alcohol advertising and control surrogate advertising by liquor companies.
- Balance Revenue and Health: Find a balanced approach to alcohol policy that considers both revenue generation and public health impact without compromising either.
- Open Discussion: Promote open, non-judgmental discussions about alcohol use, challenging traditional views and addressing religious perspectives to foster informed decision-making.

## Ethical aspects of Alcohol use in India:

Ethical aspects of alcohol use include promoting responsible consumption to mitigate social harm, respecting cultural sensitivities, addressing health risks, minimizing environmental impact, ensuring economic equity, and complying with regulations.

# Indian attitudes towards alcohol vary across different dimensions:

Cultural Views: Alcohol is perceived differently across Indian cultures. While some communities, particularly upper castes, view it negatively, associating it with "tamasic" qualities, others, like many tribal societies, accept it openly.

Gender Dynamics: Alcohol consumption by men often negatively impacts women, leading to social protests led by women against alcohol consumption in many communities.

Alcohol and Religion: Various religions in India have differing stances on alcohol. Islam forbids it, Christianity tends to be more permissive, and Hinduism does not explicitly prohibit it but emphasizes moderation.

Medical View: From a medical perspective, alcohol is recognized as harmful in India. It is associated with an increased risk of heart disease and can adversely affect liver health.

### **Ethical Thinker View on Alcohol Use**

Mahatma Gandhi: Strongly advocated for prohibition of alcohol, viewing it as harmful to individuals and society.

B.R. Ambedkar: Supported regulation and control of alcohol, emphasizing the need to address social and health issues.

Swami Vivekananda :Condemned excessive alcohol consumption, promoting spiritual and moral development as alternatives.

Aristotle :Acknowledged moderate alcohol consumption but warned against excess, emphasizing virtue and balance.

#### Climate Conditions:

- The climate conditions required for liquor production depend on the specific type of liquor being produced. For example, grapes used in wine production thrive in temperate climates with well-defined seasons, while sugarcane, used in rum production, grows in tropical climates.
- States in India Ahead in Liquor Production: Maharashtra, Karnataka, Tamil Nadu, Punjab, and Kerala. Maharashtra is the leading state for wine production in India
- Karnataka is the largest-selling state for liquor. India is the third largest market for alcoholic beverages in the world, after China and Russia.

# **ENVIRONMENT AND CLIMATE CHANGE**

### Protecting the most Vulnerable due to Increasing heatwaves in India

The article discusses the increasing heatwaves in India and their impact, including rising temperatures, more heat wave days, and a growing number of heatrelated deaths and illnesses. It highlights the challenges in accurately r eporting and addressing these issues.

## **Current Status of Heatwaves**

## **Heatwaves in India:**

2023 marked India's second warmest year in 122 years. (warmest year 2016). States like Gujarat, Maharashtra, North Karnataka, Rajasthan, Madhya Pradesh, North Chhattisgarh, Odisha, and Andhra Pradesh experienced severe heatwaves, with temperatures reaching 45.2°C in parts of Karnataka (Raichur).

The frequency of heatwave days has increased dramatically, from 90 days in the 1990s to 190 days in 2022.

## **Global Heatwave Status:**

Europe's 2003 summer heatwave led to over 70,000 excess deaths across 16 countries, impacting around 400 million people. Countries around the Mediterranean Sea, like Italy and Spain, have been significantly affected by heatwaves.

In 2022, considered Europe's hottest season, there were approximately 61,672 heat-related deaths across 35 countries, affecting a population of about 543 million.

#### Definition of heat-related death

The US National Association of Medical Examiners defines it as deaths where high temperatures either caused or significantly contributed to the death.

# How are heatwaves affecting public health?

• Increased Mortality: There is a notable rise in deaths during heatwaves.

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- Impact on Vulnerable Populations: Elderly people and those with pre-existing conditions are particularly at risk. For example- During a heatwave in Uttar Pradesh, most of the 150 deaths in a week were among the elderly.
- Rise in Hospital Admissions: Heatwaves lead to spikes in hospital admissions due to heat-related illnesses, as seen in districts like Ballia and Deoria in Uttar Pradesh.

### Steps Indian government taken to overcome the issue of Heatwaves

- Heat Action Plans: The Indian government has updated Heat Action Plans across 23 states, aiming to strategically combat and manage heatwaves.
- Awareness Campaigns: About 100 districts have initiated campaigns to raise awareness about heatwave risks and precautions.
- Focus on Vulnerable Groups: These initiatives prioritize protecting high-risk groups like children, pregnant women, the elderly, and people with chronic diseases.
- Public Health Preparedness: The Union Health Minister reviewed the preparedness for managing Heat-Related Illnesses (HRIs) on April 3, indicating a proactive approach to addressing the health impacts of heatwaves.

#### 1.Bilateral investment treaty

- The Prime Minister's Office (PMO) has directed the commerce ministry to review the model text of bilateral investment treaties (BITs) and propose enhancements to facilitate business operations.
- This move is prompted by India's previous losses in international arbitration cases against companies like Vodafone and Cairn Energy over retrospective tax imposition.
- Model text of BIT: Union Cabinet adopted new Model BIT text in 2015, which replaced Indian Model BIT, 1993.
- BITs are crucial for protecting and promoting investments between nations, and they are a focal point in India's negotiations with countries like the UK and the European Free Trade Association (EFTA).

- India has invoked the peace clause at the WTO for the fifth consecutive time for the marketing year
- Despite breaching the 10% domestic support ceiling, there are no immediate repercussions due to the peace clause, which provides immunity until a permanent colution.
- India justifies its actions as necessary to meet domestic food security needs.
- The peace clause in the World Trade Organization (WTO) refers to an agreement that temporarily shields developing countries from legal challenges for breaching the domestic support limits on agricultural subsidies. lusi
- It was established during the WTO's Bali Ministerial Conference in 2013.
- This clause allows developing countries to provide subsidies beyond the prescribed limits for certain agricultural products, such as rice and wheat, without facing immediate repercussions.
- The peace clause provides immunity until a permanent solution is found, allowing developing countries to support their domestic agricultural sectors while negotiations continue on more permanent subsidy rules.

# 3. Dark Energy Spectroscopic Instrument (DESI)

DESI's groundbreaking project harnesses 5,000 robots to peer 11 billion years into the past, revealing unprecedented insights into our expanding universe.

It found the most precise measurement of the universe expansion rate at a rate of 68.5 (±0.6) kilometres per second per megaparsec (a million parsec; 1 parsec equals 3.2616 light years).

DESI made a huge 3D map to study dark energy's impact over 11 billion years. In the Lambda CDM model, matter and dark energy affect the universe's expansion differently: matter slows it, while dark energy speeds it up. Both dark energy and dark matter dominate the universe, comprising about 95% of it.

DESI is a project aimed at mapping the universe to study dark energy's effects over billions of years. It is the product of an international collaboration that brings together researchers from more than 70 institutions (including from India). It is a ground-based dark energy experiment, located on the Mayall 4-meter telescope at Kitt Peak National Observatory (USA)

## 4. Curative Petition

The Supreme Court has recently set aside the 2017 arbitral award that required the Delhi Metro Rail Corporation (DMRC) to pay nearly Rs 8000 crore to Anil Ambani-owned Reliance Infrastructure. However, exercising curative jurisdiction in a commercial case pushes the envelope and raises questions on the finality of a ruling of the highest court in the country.



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Description— It is the final and last option for the people to acquire justice. The concept of curative petition originated from the case of Rupa Ashok Hurra Vs. Ashok Hurra and another case (2002). It may be filed after a review plea against the final conviction is dismissed.

Objective—To ensure there is no miscarriage of justice and to prevent abuse of process.

#### Criteria for admission:

- 1) It can be entertained if the petitioner establishes that there was a violation of the principles of natural justice.
- It can be admitted where a judge has failed to disclose facts that raise the apprehension of bias.
- A curative petition needs a senior advocate's certification that mentions a good number of reasons to consider it. Who hears Curative petitions?

- 1) A curative petition must be first circulated to a bench of the 3 senior-most judges, and the judges who passed the concerned judgment (If available).
- It only gets listed for a hearing if most of the judges agree that it is necessary and, ideally, it is heard by the same Bench as before.
- Curative petitions are usually decided by judges privately, unless someone asks for an open-court hearing. 3)
- 4) At any point, the Bench can ask a senior counsel to assist as amicus curiae during the curative petition review.
- 5) If the Bench decides at any point that the petition is baseless and without any merit, it can make the petitioner pay extra costs.

#### 5. International Narcotics Control Board

India's Jagjit Pavadia has recently been re-elected for a third term to the International Narcotics Control Board.

#### **About International Narcotics Control Board**

Description: It was established in 1968. This board is the independent and quasi-judicial monitoring body for the implementation of the United Nations international drug control conventions.

Members: It consists of 13 members who are elected by the Economic and Social Council. The members serve in their personal capacity and are not government representatives.

Out of 13 members, 3 members with medical, pharmacological, or pharmaceutical experience are chosen from a list nominated by the World Health Organization (WHO), and 10 members are chosen from a list nominated by it ensures adequate supplies of drugs for medical and scientific uses.
 It ensures that drugs are not diverted from a legal source to illegal ones.
 It monitors Governments' control over chemicals used in the illegal ones. governments.

#### Mandate:

# ANSWER WRITTING

# Q. Investigate the individual, organizational, and societal factors contributing to apathy and prejudice in civil services.

Apathy refers to a lack of interest, enthusiasm, or concern towards public welfare and administrative responsibilities, leading to ineffective governance. Prejudice involves harbouring irrational biases or preconceived notions against certain groups or individuals, impacting fair and equitable decision-making and service delivery.

#### **Apathy in Civil Services**

# **Individual Factors:**

- Lack of Motivation: Civil servants may experience a decline in enthusiasm due to repetitive tasks or insufficient recognition for their efforts. For example, an IAS officer who consistently sees innovative proposals ignored or undervalued may lose the drive to initiate new projects or engage actively in their role.
- **Burnout and Stress:** The high-pressure environment and demanding nature of civil service can lead to exhaustion, both mentally and physically. Officers dealing with long-standing, complex issues like insurgency or bureaucratic complexities may find themselves emotionally drained, leading to a dispassionate approach to their duties.
- Inadequate Training and Skill Development: Without ongoing training and skill enhancement, civil servants might feel ill-equipped to handle their responsibilities effectively. Eg: An officer inadequately trained in modern administrative techniques may find it challenging to adapt to evolving governance demands.

## **Organizational Factors:**

Bureaucratic Red Tape: Excessive formalities and procedural delays can impede effective governance, leading to a sense of futility and apathy among civil servants. The slow movement of files and decisions in government offices is a classic example of this issue.

- Lack of Accountability and Transparency: In the absence of a robust accountability mechanism, civil servants may adopt a careless attitude. Scandals like the Coal Allocation Scam (Coalgate) highlight how opacity and lack of accountability can lead to irresponsible governance.
- Ineffective Leadership and Management: Poor leadership can demoralize employees and create a disengaged workforce. The mishandling of crises like the 1984 Bhopal Gas Tragedy exemplifies the consequences of ineffective leadership in the civil services.

#### Societal Factors:

- Public Perception and Criticism: Constant public scrutiny and criticism can lead to a demoralized civil service. Eg: general perception of bureaucracy as corrupt and inefficient often demotivates officers from taking proactive and innovative measures.
- Social and Cultural Norms: Prevailing societal norms might encourage conformity and discourage proactive governance. Eg: slow evolution of societal attitudes towards issues like gender equality and caste discrimination can dampen the enthusiasm of reform-minded officers.
- Media Influence: Sensationalism and negative portrayal in the media can lead to a defensive and riskaverse approach to governance. Eg: Intense media scrutiny in cases like the Nirbhaya incident can impact the approach of law enforcement agencies.

# **Prejudices in Civil Services**

#### **Individual Factors:**

- Personal Biases and Stereotypes: Civil servants may harbour personal prejudices against certain
  communities or groups, which can adversely affect their decision-making and service
  delivery. Discrimination against lower castes or minorities in various administrative functions is a
  pertinent example.
- Lack of Exposure and Awareness: Limited exposure to diverse cultures and communities can lead to misconceptions and biases. Officers unfamiliar with the unique challenges faced by tribal populations, for example, may inadvertently make decisions that do not adequately address these communities' needs.
- Psychological Factors: Inherent fears or insecurities can manifest as biased behaviour. Gender bias in
  recruitment and promotion processes, often a reflection of societal prejudices, is an example of
  such psychological factors at play.

#### **Organizational Factors:**

- Institutionalized Discrimination: Systemic prejudices within the organization can influence individual behaviors. The historical exclusion and underrepresentation of lower castes in Indian civil services, despite measures like reservations, is an example of such institutionalized discrimination.
- Lack of Diversity and Inclusion Policies: The absence of strong policies promoting diversity and inclusion can perpetuate existing prejudices. The underrepresentation of women and minorities in higher echelons of bureaucracy is a case in point, highlighting the need for more inclusive policies.
- Workplace Culture: A workplace culture that does not actively promote inclusivity can reinforce existing biases. Instances of harassment or discrimination against women in the civil services are examples of how a non-inclusive culture can perpetuate prejudice.

#### **Societal Factors:**

- Societal Stereotypes and Norms: Prevailing societal biases can seep into the attitudes and actions of civil servants. The stereotype of certain communities being prone to criminal behaviour, for instance, can affect policing and law enforcement.
- Media and Public Opinion: Media portrayal of certain groups, often sensationalized or biased, can reinforce stereotypes among civil servants. The portrayal of minorities in certain sections of the media has been known to impact administrative actions and policies.
- Political and Social Movements: The influence of prevailing political ideologies and social movements can shape the biases of civil servants. The impact of political ideologies on administrative decisions during communal riots or social unrest is an example of this phenomenon.

Going ahead, there is a need to address individual, organizational, and societal factors that contribute to apathy and prejudice by implementing measures to foster virtues like empathy, tolerance, and compassion. Through this, civil services can evolve into more humane, inclusive, and effective institutions, building a society grounded in fairness, understanding, and respect for diversity.

#### MCQs

- 1. Consider the following about distribution of power on liquor control in India
- 1. Central government formulates nationallevel policies regarding alcohol advertising and marketing.



2. Liquor falls under state list of seventh schedule of the constitution

Which of the above sentence/sentences are correct?

- (a) 1 only
- (b) 2only
- (c) Both 1 and 2
- (d) None
- 2. With reference to the landforms in deserts, consider the following statements:
  - 1. Playas are shallow-water lakes in the desert region.
  - 2. Mushroom rocks are a type of erosional landform created by winds.
  - 3. 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
- 3. Which of the following are the depositional landforms of running water?
  - 1. Deltas
  - 2. Alluvial fans
  - 3. Flood plains
  - 4. Potholes
  - 5. Plunge pools
  - Valleys

Select the correct answer using the codes given

- a) 1,2 and 4 only
- b) 2, 3 and 4 only
- c) 1, 2 and 3 only
- d) 1, 2, 3, 4,5 and 6
- Which of the following statements regarding the process to become a member of the United Nations (UN) is correct?
  - (a) A country can become a UN member solely through a majority vote in the General Assembly.
  - (b) To become a UN member, a country must first submit an application to the Security Council, which then recommends admission to the General Assembly for a two-thirds majority vote.
  - (c) Any country can automatically become a UN member upon expressing its desire to join, without requiring approval from existing member
  - (d) Membership to the UN is restricted to countries that have been independent for at least 50 years and have demonstrated a commitment to peace and human rights.
- 5. Consider the following statements regarding the United Nations Security Council (UNSC).
  - 1. The primary responsibility of the United Nations Security Council (UNSC) is to maintain international peace and security.
  - 2. The council's presidency rotates every month among the Five permanent members.

3. The non-permanent members are elected for five-year terms.

How many of the above statements is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- Consider the following fundamental particles:
  - 1. Photon
  - 2. Electron
  - 3. Neutrino
  - 4. Ouark

How many of the above fundamental particles interact with the Higgs field to acquire mass?

- (a) Only one
- (b) Only two
- (c) Only three (d) All four
- 7. Consider the following statements about international narcotics control board
  - 1. India's Jagjit Pavadia has recently been reelected for a third term to the International Narcotics Control Board.
  - It was established in 1968.
  - It consists of 15members who are elected by the Economic and Social Council.

Which of the above statements are incorrect?

- (a) 1 and 2
- (b) All the above
- (c) 2and 3
- (d) 3 only
- With reference to the National Centre for Disease Control (NCDC), how many of the following statements are correct?
  - 1. It acts as the nodal agency for disease surveillance and outbreak response in India.
    - 2. It monitors trends in antimicrobial resistance (AMR) and promotes responsible antibiotic use.
    - 3. It functions under the administrative control of Indian Council of Medical Research (ICMR). Select the correct answer using the codes given below:
    - (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 9. The 'Ural Mountains' running from north-south, separates:
  - (a) Eastern Europe and Western Asia
  - (b) Northern Europe and Southern Europe
  - (c) Central Asia and South Asia
  - (d) Western Europe and Eastern Europe
- 10. Which one of the following best describes the 'Higgs boson's' main function in the particle physics?
  - (a) It mediates the strong nuclear force.
  - (b) It gives mass to other fundamental particles.
  - (c) It is a building block of protons and neutrons.
  - (d) It is responsible for radioactive decay.