

CURRENT AFFAIRS

18th August 2022

UNDERSTANDING ETHANOL BLENDING

SYLLABUS: GS PAPER-III (ENVIRONMENTAL POLLUTION & DEGRADATION)

CONTEXT: Prime Minister Narendra Modi announced that India has achieved its target of blending 10% sugarcane extracted ethanol in petrol, ahead of schedule.

Addressing the nation from the Red Fort on the 75th Independence Day, he rooted for energy independence stating that India needs to be self-sufficient in its energy sector.

ABOUT ETHANOL BLENDING

- Ethanol is an agricultural by-product which is obtained from **the processing of sugar from sugarcane, but also from other sources such as rice husk or maize.**
- Blending ethanol with petrol to burn less fossil fuel while running vehicles is called ethanol blending.
- Currently, 10% of the petrol that powers our vehicle is ethanol.
- India's aim is to increase this ratio to 20% originally by 2030 but in 2021, when NITI Aayog put out the ethanol roadmap, that deadline was advanced to 2025.

SIGNIFICANCE OF ETHANOL BLENDING

- Ethanol blending will help bring down India's share of oil imports (almost 85%) with considerable amount of our precious foreign exchange.
- More ethanol output would help increase farmers' incomes.
- Ethanol is a **less polluting fuel and offers equivalent efficiency at a lower cost** than petrol.

ABOUT FIRST-GENERATION AND SECOND-GENERATION ETHANOL

- The first-generation ethanol or 1G refers to the procurement of ethanol produced **molasses.**
- On the other hand, ethanol produced from other sources such as **rice straw, wheat straw, corn cobs, corn stover, bagasse, bamboo, and biomass,** is referred to as second-generation ethanol.

CHALLENGES INVOLVED

- The domestic production of ethanol is not sufficient to meet the demand for ethanol for blending with petrol. The sugar

Aiming for an eco boost

Oil industry experts have allayed fears over mixing ethanol with petrol and say it cannot damage engines

- Ethanol is a bio-fuel obtained primarily from sugarcane. Blending of ethanol with petrol reduces dependence on fossil fuel and helps the environment

- The government had set a target of 10% of ethanol per litre of petrol

- Ethanol is blended through a separate pumping and metering mechanism

- Once blended, ethanol cannot be separated from petrol

Since ethanol can absorb moisture from the atmosphere, dealers say it can cause issues with vehicle engines



mills lack the financial stability to invest in biofuel plants.

- The report published by NITI Aayog points that the two-wheelers and passenger vehicles that are being made presently in the country “**are designed optimally for E5 (5 percent ethanol blend with petrol) while rubber and plastic components are “compatible with E10 fuel”**”.
- While India has become one of the top producers of ethanol, it lags the top producers- the USA and Brazil, in terms of water usage.
- The limited availability of sugarcane affects the ethanol blending in the country. To achieve a 20% blend rate, almost one-tenth of the existing net sown area will have to be diverted for sugarcane production. Any such land requirement is likely to put a stress on other crops and has the potential to increase food prices.
- The production ethanol from crop residue can be a suitable alternative but the annual capacity of biorefinery is not enough to meet the 5% petrol-ethanol blending requirement.
- Moreover, ethanol, being a highly flammable liquid marks obligatory safety and risk assessment measures during all phases of production, storage, and transportation, thus increasing the cost and risk factor.

SUPREME COURT'S CONTRADICTORY VERDICTS REINFORCE THE NEED FOR A BAIL ACT

SYLLABUS: GS PAPER-II (IMPORTANT PROVISIONS OF THE INDIAN CONSTITUTION)

CONTEXT: In **Satender Kumar Antil v. CBI**, the directions on undertrials and pre-trial detentions have been given by the Supreme Court. The SC has asserted mandatory compliance with the **Sections 41 and 41A of the Criminal Procedure Code (CrPC)**.

CRIMINAL JUSTICE REFORMS

- The **Section 41 was modified and the Section 41A** was incorporated into the Code of Criminal Procedure (CrPC) in the first decade of the 21st century.
- The objective of this reform was **to reduce the number of arrests by the police for offences punishable by up to 7 years of imprisonment**.
- These initiatives not only had the potential to reduce custodial violence but also lower the burden on courts.

THE RULINGS OF THE SUPREME COURT

- In **Arnesh Kumar vs State of Bihar Case (2014)**, the Supreme Court directed the state governments to instruct their police officers to not arrest the accused automatically wherein the offence is punishable with imprisonment for a term which may be less than seven years.
- The Court iterated that **investigating agencies are accountable for compliance with Section 41 and 41A of CrPC**.
- Moreover, the importance of the “bail over jail” rule was reaffirmed and the court issued a slew of **step-by-step procedures** to prevent unnecessary arrest or remand.

ISSUES IN INDIAN CRIMINAL JUSTICE SYSTEM

- According to the **Prison Statistics of India 2020**, 76% of the prisoners are undertrials. The sizeable percentage of **undertrials in prison as well as the pre-trial detentions** are the result of not only **unnecessary arrests by investigating agencies** but also the **unfair**

application of bail provisions by the court. This has led to the violation of the **cardinal rule of the presumption of innocence.**

- The investigating agencies do not judiciously apply Sections 41 and 41A of the CrPC and continue to take a **mechanical approach** wherein detentions are regarded as the only effective option to complete the investigation. Thus, there is a huge pendency of bail applications in various courts.

ABOUT BAIL

- Bail is the **conditional release of a defendant with the promise to appear in court when required.**
- The term also means the security that is deposited to secure the release of the accused.
- In India's legal world, the term offense has been categorized as **bailable offenses and non-bailable under the Code of Criminal Procedure.**

TYPES OF BAILS

Based on the nature of the criminal matter, there are commonly three types of bail in India:

- **Regular bail:** It is granted to a person **who has been arrested or is in police custody.** Such a bail application can be filed for regular bail under **sections 437 and 439 of CrPC.**
- **Interim bail:** This type of bail is **granted for a brief period** before the hearing for the grant of regular bail or anticipatory bail.
- **Anticipatory bail:** It is granted under **section 438 of CrPC** either by a Session Court or High Court. An application for the grant of anticipatory bail can be **filed by the person who discerns that he may be arrested by the police for a non-bailable offense.**

PRELIMS FACTS

TALAQ-E-HASAN

- The Supreme Court prima facie observed that the Muslim personal law practice of talaq-e-Hasan is "not so improper."
- Talaq-e-Hasan is a form of divorce whereby a **Muslim man can divorce his wife by pronouncing talaq once every month over a three-month period.**
- By the end of the three months, if the partners do not start cohabiting, then the talaq is deemed valid and the marriage ends. If within the three-month period, the spouses start cohabiting, the divorce is suspended and the first two utterances of 'talaq' deemed invalid. It is assumed that the spouses have reconciled.
- The practice is unilateral, that is, divorce can only be given by men.
- Unlike **instant triple talaq** (wherein a man pronounces multiple divorce in one go), the Quran clearly mentions the process of Talaq-e-Hasan.

PAALAN 1000 NATIONAL CAMPAIGN AND PARENTING APP

- The Union Minister of State for Health Dr. Bharati Pravin Pawar, virtually launched the **Early Childhood Development Conclave, Paalan 1000 National Campaign and Parenting App in Mumbai.**
- India has taken rapid strides in reducing child mortality since 2014 from **45 per 1000 live births to 35 per 1000 live births in 2019.**

- Paalan 1000 campaign focuses on the cognitive development of children in the first two years of their life.
- It combines early years coaching for parents, families and other caregivers with services designed to meet families' basic needs.
- The campaign is aligned with the **mission of the Rashtriya Bal Swasthya Karyakram (RBSK)** which emphasizes responsive care and focused interventions during the first 1,000 days of a child.

SUPER VASUKI

- The Railways conducted a test run of its **longest freight train, Super Vasuki**, with 295 loaded wagons carrying over 27,000 tonnes of coal as part of Azadi Ka Amrit Mahotsav celebrations.
- The 3.5 -km -long freight train covered the distance of about 267 km between **Korba in Chhattisgarh and Rajnandgaon in Nagpur**.
- It was run by the South East Central Railway (SECR).
- This is the longest and heaviest freight train ever run by the Railways.
- The Railways plans to use this arrangement (longer freight trains) more frequently, especially to transport coal in peak demand season to prevent fuel season shortages of power stations.

THUCYDIDES TRAP

- The Thucydides Trap is named after the ancient Greek historian Thucydides, a fifth-century BCE Athenian who authored "The History of the Peloponnesian War," which reports on the conflict between Athens and Sparta.
- The Thucydides Trap refers to **the tendency of conflict to erupt when a dominant power is challenged by a growing power**.
- Thucydides Trap, or Thucydides' Trap, is a term popularized by **American political scientist Graham T. Allison**.
- It is primarily used to describe a potential conflict between the United States and the People's Republic of China.

What is the

Thucydides Trap?

"It was the rise of Athens, and the fear that this inspired in Sparta, that made war inevitable."
-Thucydides

"We all need to work together to avoid the Thucydides trap - destructive tensions between an emerging power and established powers."
-Xi Jinping
President of China

MANTHAN PLATFORM

- The **Office of the Principal Scientific Adviser (PSA) to the Government of India** announced the launch of the Manthan platform.
- While commemorating India's 75 years of independence, the Manthan Platform presents an **opportunity to bring national and global communities closer to India's technology revolution.**



- This platform will provide the necessary fulcrum for transforming the nation through **innovative ideas, inventive minds, and public-private-academia collaboration to achieve the sustainability goals** in alignment with the UN defined Sustainable Development Goals (SDG) charter.
- Manthan Platform is powered by **NSEIT Limited** which is its trusted knowledge and technology partner.