



## India Becomes the World's Largest Producer of Sugar

**For Prelims:** Sugarcane, Ethanol Blending with Petrol (EBP) Programme, Fair and remunerative price (FRP), Commission for Agricultural Costs and Prices (CACP), Rangarajan committee (2012), Biofuel Policy 2018.

**For Mains:** Impact of Sugar Production in India's Economy.

### Why in News?

Recently, India has emerged as the **world's largest producer and consumer of sugar and the world's 2<sup>nd</sup> largest exporter**, due to the record production of more than 5000 Lakh Metric Tons (LMT) of sugarcane.

### What are the Reasons for Good Production of Sugar?

- **Impressive Sugar Season (Sep-Oct):** All records of sugarcane production, sugar production, sugar exports, cane procured, cane dues paid and ethanol production was made during the season.
- **High exports:** The exports were the highest at about 109.8 LMT without any financial assistance and earned foreign currency of about Rs. 40,000 crores.
- **Indian Government Policy Initiatives:** Timely government initiatives in the last 5 years have taken them out of financial distress in 2018-19 to the stage of self-sufficiency in 2021-22.
  - **Encouraging Ethanol Production:** The Government has encouraged sugar mills to divert sugar to [ethanol](#) and also export surplus sugar so that mills may have better financial conditions to continue their operations.
  - **Ethanol Blending with Petrol (EBP) Programme:** The National Policy on Biofuels 2018, provides an indicative target of 20% ethanol blending under the Ethanol Blended Petrol (EBP) Programme by 2025.
  - **Fair and remunerative price (FRP):** The FRP is the minimum price that sugar mills have to pay to sugarcane farmers for procurement of sugarcane. It is determined on the basis of recommendations of the [Commission for Agricultural Costs and Prices \(CACP\)](#) and after consultation with State Governments and other stakeholders.
  - **State Advised Price:** Although the Central government decides the FRP the state governments can also set a State Advised price which a sugar mill has to pay to the farmers.
  - **Rangarajan committee (2012)** was set up to give recommendations on regulation of the sugar industry.
    - **Its recommendations:**
      - Abolition of the quantitative controls on export and import of sugar, these should be replaced by appropriate tariffs.
      - States should also undertake policy reform to allow mills to harness power generated from bagasse.

### What is the Present Status of the Sugar Industry in India?

- **About:** Sugar industry is an important agro-based industry that impacts the rural livelihood of about 50 million sugarcane farmers and around 5 lakh workers directly employed in sugar mills.
  - The sugar industry is the second largest agro-based industry in India after cotton.
- **Distribution:** Sugar industry is broadly distributed over **two major areas of production**- Uttar Pradesh, Bihar, Haryana and Punjab in the north and Maharashtra, Karnataka, Tamil Nadu and Andhra Pradesh in the south.
  - South India has a **tropical climate** which is suitable for higher sucrose content giving a higher yield per unit area as compared to north India.
- **Geographical Conditions for the Growth of Sugar:**
  - **Temperature:** Between 21-27°C with hot and humid climate.
  - **Rainfall:** Around 75-100 cm.
  - **Soil Type:** Deep rich loamy soil.
  - **Top Sugarcane Producing States:** Maharashtra>Uttar Pradesh > Karnataka
- **Challenges:**
  - **Uncertain Production Output:** Sugarcane has to compete with several other food and cash crops like cotton, oil seeds, rice, etc. This affects the supply of sugarcane to the mills and the **production of sugar also varies from year to year causing fluctuations in prices** leading to losses in times of excess production due to low prices.
  - **Low Yield of Sugarcane:** India's **yield per hectare is extremely low** as compared to some of the major sugarcane producing countries of the world. For example, India's yield is only 64.5 tonnes/hectare as compared to 90 tonnes in Java and 121 tonnes in Hawaii.
  - **Short Crushing Season:** Sugar production is a seasonal industry with a **short crushing season varying normally from 4 to 7 months in a year.**
    - It causes financial loss and seasonal employment for workers and lack of full utilization of sugar mills.
  - **Low Sugar Recovery Rate:** The average rate of recovery of sugar from sugarcane in India is less than 10% which is quite low as compared to other major sugar producing countries.
  - **High Production Cost:** High cost of sugarcane, inefficient technology, the uneconomic process of production and heavy excise duty result in high cost of manufacturing.
    - Most of the sugar mills in India are of small size with a capacity of 1,000 to 1,500 tonnes per day thus fail to take advantage of economies of scale.

## Way Forward

- There is a need to deploy remote sensing technologies to map sugarcane areas. Despite the importance of sugarcane in the water, food and energy sectors in India, there are no reliable sugarcane maps for recent years and in time series.
- Research and development in sugarcane can help address issues like low yield and low sugar recovery rates.

## UPSC Civil Services Examination Previous Year Question (PYQ)

### Prelims

**Q According to India's National Policy on Biofuels, which of the following can be used as raw materials for the production of biofuels? (2020)**

1. Cassava
2. Damaged wheat grains
3. Groundnut seeds
4. Horse gram
5. Rotten potatoes
6. Sugar beet

**Select the correct answer using the code given below:**

**(a) 1, 2, 5 and 6 only**

- (b) 1, 3, 4 and 6 only  
(c) 2, 3, 4 and 5 only  
(d) 1, 2, 3, 4, 5 and 6

**Ans: (a)**

**Exp:**

- **The National Policy on Biofuels, 2018, allows production of ethanol from damaged food grains** like wheat, broken rice, etc., which are unfit for human consumption.
- The Policy also allows conversion of surplus quantities of food grains to ethanol, based on the approval of the National Biofuel Coordination Committee.
- The Policy expands the scope of raw material for ethanol production by allowing use of sugarcane juice, sugar containing materials like sugar beet, sweet sorghum, starch containing materials like corn, cassava, damaged food grains like wheat, broken rice, rotten potatoes, unfit for human consumption for ethanol production. **Hence, 1, 2, 5 and 6 are correct. Therefore, option (a) is the correct answer.**

**Source: PIB**

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