



IMPACT OF COVID-19 ON INDIAN AGRICULTURE

Situational Assessment of Sugar Industry



This report was prepared in discussion with farmers, Traders, Cold Storage Owners, and other stakeholders engaged in Sugarcane value chain along with review of secondary literature.

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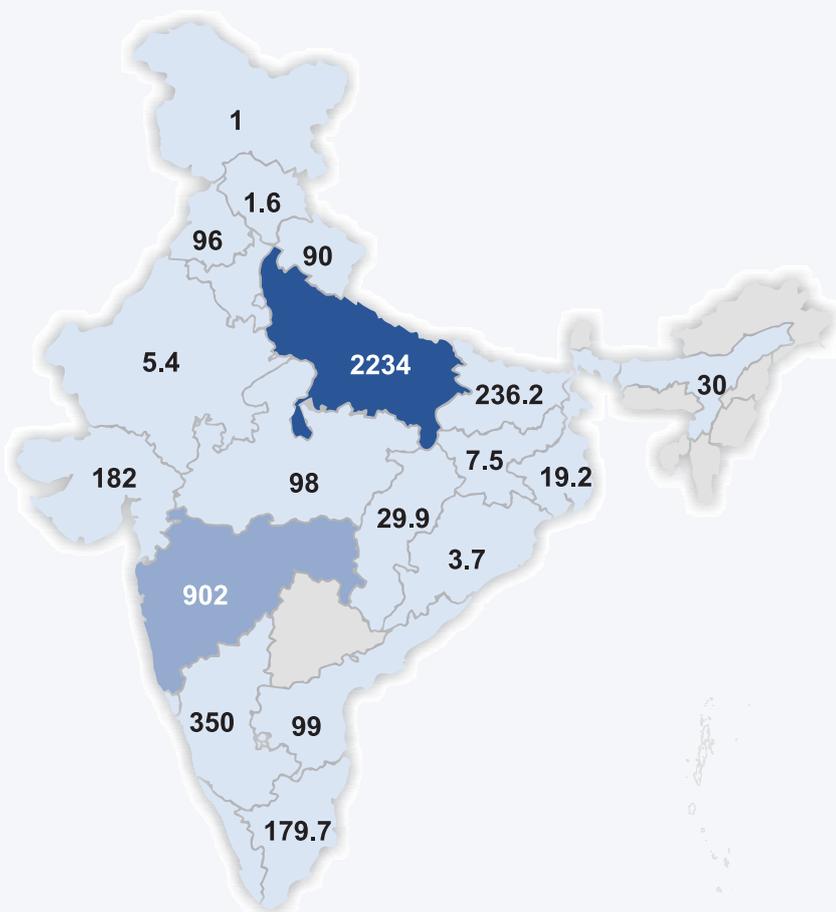


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Situational assessment of Sugar Industry

In battle against the Corona virus pandemic, the Government of India has extended the national lockdown till May 15th with some relaxations. Even though sugar was declared an essential commodity and is exempt from the restrictions of the lockdown, plunge in institutional use, shortage of labour for operation and distribution, and limited sea port operations have led to the drop in domestic production, sales, and exports.

Sugarcane cultivation map of India (Area in 000 hectares)



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FIGURE 1: State wise map of land under sugarcane cultivation for year 2017-18

Importance of crop in India

Sugar industry is among the important agro-based industries that impacts livelihood of about 50 million sugarcane farmers and around 5 lakh workers directly employed in sugar mills¹. **India became the world's largest sugar producer in year 2018-19 by beating out Brazil for the first time in 16 years.** In 2018-19, India produced 33 million metric tons of sugar which is 19% of the world's total sugar production of 179 million metric tons. **There are 732 sugarcane factories in India, operated by private companies and cooperative societies².**

¹Department of food and public distribution, Gol, <https://dfpd.gov.in/sugar.htm>

²Department of food and public distribution, Gol, <https://dfpd.gov.in/sugar.htm>

During the year 2019-20 sugarcane was grown on 4.93 million hectares of land and total sugarcane production is expected to be 28 million tons; registering a decline of more than 10% as compared to 2018-19. Uttar Pradesh (UP) is the largest producer of sugarcane with total cultivation area of 2.3 million hectares producing about 17.9 million tons of sugar followed by Maharashtra and Karnataka with production of 9.2 and 4.2 million tons, respectively. Other major sugarcane producing states are Gujarat, Tamilnadu, Bihar, Haryana, and Punjab.

Seasonality of Sugarcane in India

Sugarcane is an annual crop which takes around 12 to 18 months for maturity depending upon the variety and sowing time. Sugarcane requires 25-32°C temperature for good germination, thus its planting season varies across the states based on temperature requirements and cropping patterns. Harvesting of sugarcane accordingly varies across states. This is indicated in the table below.

Major growing areas	Planting months	Harvesting season
Some parts of North India	October-November	November-May
Tamil Nadu, Andhra Pradesh, Maharashtra, and Karnataka	December-February	October-May
Bihar	January-February	October-April
Uttar Pradesh	February-March	November-May
Haryana and Punjab	March	November-May
Maharashtra and parts of southern states	July (Adsali*)	October-April

** To get the better yield of sugarcane farmers in Maharashtra and some parts of UP plants the sugarcane in July. This season is also called as 'Adsali'. The adsali seasonal crop matures in 15-18 months and supplies sugarcane in early crushing period.*

Since the sugarcane has to be milled to produce sugar among other products, harvesting (time, labour, machinery, and quantum etc.) is controlled by the Sugar millers.

Emerging Challenges in Sugar Industry due to Covid-19

With varying sowing and harvesting period of sugarcane, the countrywide lockdown announced on 25th March to combat the spread of Covid-19 pandemic coincided with planting, production and harvesting stages of sugarcane across different production hubs in the country. As per the estimates of experts in industry more than 80% of the harvesting was completed before the lockdown and rest was done during the time of lockdown.

The lockdown measures announced in India had a significant impact on the sugarcane industry. While farmers have been affected due to lack of availability and access to labour and agriculture inputs, Sugar mills countered issues due to reduced demand of sugar in both domestic and international markets along with shortage of labour and other materials (like sulphur, gunny bags) for carrying out crushing and distribution operations.

Impact on sowing and production stages

In some parts of UP farmers were planning to plant sugarcane after harvesting of wheat crop. However, untimely rains followed by delayed harvesting of wheat resulted in delaying of the sowing of sugarcane. During the lockdown period, some farmers, because of unavailability of planting material, shortage of labour combined with fear of getting infected with corona virus have left stayed away from planting sugarcane. These farmers are now planning to grow paddy or other crops during the Kharif season. As per the experts in industry, it is estimated that this may lead to around 5-10% reduced area under sugarcane cultivation in selected pockets of the UP.

“We were supposed to apply fungicides in our sugarcane crop during the 1st week of April, however due to lockdown majority of the farmers in my village could not purchase it. Based on our experience we understand that non-application of it may damage our crops and reduce the productivity by 15-20%.”

Mr. Chetan Sandi, Sugarcane farmer, Sankeshwar

During the lockdown period, sugarcane was at the production stage in most of the states. Farmers who had either planted new crops or having the ratoon crops (re-growth of sugarcane) were supposed to apply fertilizers, pesticides, fungicide, and other crop protection material in their crops. However, partial closure of agri input stores have made availability and accessibility of these materials difficult for the farmers³. In some cases, available pesticides were either of inferior quality or were sold

Impact of Covid-19 on Harvesting and crushing of sugarcane

The impact of lockdown due to Covid-19 has led to challenges in harvesting and milling in the largest producing state, Uttar Pradesh. Since sugarcane is predominantly harvested manually, labour requirement during harvesting period peaks. The last phase of harvesting in UP was the one which got most affected. The states in south and west had almost completed their harvesting and therefore were less affected. The process of milling though was affected both on account of less quantum of the crop harvested and shortage of adequate labour to carry out milling functions. The lower availability of sugarcane is forcing the mills to operate at less than 100% capacity. Often during the harvest season, sugar mills operate at 125-130%. The sugarcane industry is estimating a loss of about 2-3 million tons due to problems related to harvesting during the lockdown.

Lockdown measures have slowed down the pace of sugarcane arrival in the mills. Because of this, majority of the sugar mills were operating at 75-80% capacity during the month of April which is usually the peak harvesting season. Last year mills were operating at 100-120% capacity during the same period.

³While these all things were permitted under the lockdown, implementation of such permissions was not uniform across the districts and state.

at a higher price. As per the extension advisors and experts of sugarcane farming, non-application of some important crop protection materials and fertilizers on time may potentially damage the crop and reduce the productivity. Some of the manual operations like weeding and other intercultural operations were also due during this time, these operations were affected due to shortage in availability of labor especially in states like Maharashtra and Karnataka.



Impact on demand of sugar in domestic and export market

The most visible impact of the COVID-19 crisis is on demand of sugar. Institutional consumption in India normally constitutes 65 % of total domestic sugar sales, which is estimated at 26.5 million tons annually. The pandemic could impact the overall domestic sugar consumption by 5-8% (1-1.5 million tons). The months of April, May and June are important months for marriage and other social events which are either postponed or cancelled. These events are high consumption points for sugar in form of Indian sweets and confectionaries. The demand from regular sweet shops and bakeries has also dried up. It is said that last two years had been bumper crop for sugar and sugar mills have a huge inventory from the past years. The season for year 2019-20 started with a balance of 14.58 million tons of sugar with sugar mills in October 2019 and by clubbing the estimated production of 26.5 million tons in the current season (2019-20), the total availability of sugar is estimated to be around 40.58 million tons. Against the availability, the consumption is estimated to be around 29 million tons including exports. India is likely to end with closing stock of over 11.58 million tons in September 2020, which will be higher than the earlier estimate of 10 million tons⁴.

Sugarcane supply and demand dynamics

(All figures are in Million Tonnes)

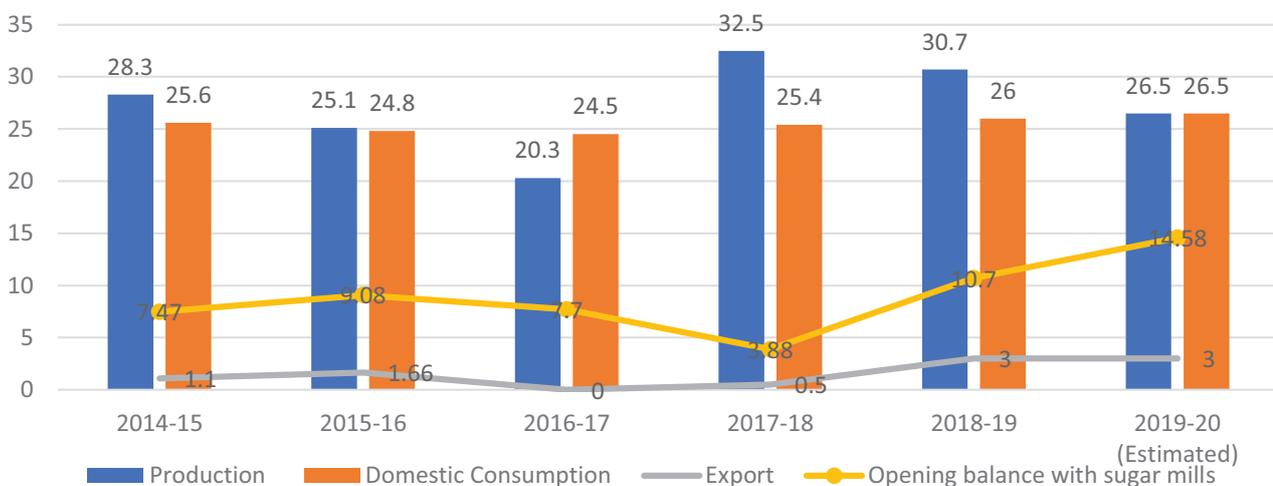


FIGURE 2: Sugarcane supply and demand dynamics in India (Reference-ISMA)

⁴<https://www.financialexpress.com/industry/covid-19-to-put-pressure-on-sugar-industry-as-domestic-consumption-exports-to-take-a-hit/1929481/>



India is the major exporter of sugar to Global food & Beverage companies like Pepsi, Coca-Cola, Nestle etc. for their global operations in USA, Europe, and other countries. Lockdown measures in these countries have affected the demand for F&B products. Exports have been affected by both lower demand from the export destinations and limited port operation in India. Due to the lockdown, India's private ports have declared force majeure & government ports are also operating at lower capacities due to limited custom operations.

Owing to these all factors, export of sugar is projected to be adversely affected by almost 40%. The government and industry had forecasted exports of 6 million tons of sugar in 2020 which has been revised to about 4 million tons⁵.

Implications on Sugar mills

One of the major difficulties faced by Sugar mills is their inability to find appropriate storage space for the sugar produced by them. While some sugar mills have arranged temporary infrastructure to store surplus sugar however, any unfavourable weather event may result in incomprehensible damage.

- Sugar mills are also now burdened with low cash inflow while the capital requirement continues to swell. This may lead to the mounting of liquidity pressures on companies which have high repayment obligations in the short to medium term and are holding excess inventory. Cane arrears (amount which sugar mills supposed to pay to farmers against the purchase of sugarcane) are also likely to swell in the current scenario. Any further extension in lockdown may put more pressure on the liquidity of the millers.
- Cash flow pressure on sugar mills will lead to the delay in payment of cane arrears to farmers. Some of the sugar mills already have accumulated cane arrears of previous years, the adverse impact caused by Covid-19 may lead to the further accumulation. Any delay in payment of arrears to farmers will lead to the cash crunch at farmers end. There is an estimated arrear of Rs. 160,000 million. with sugar mills along with last years accumulated arrears of Rs. 8,500 Million. The maximum dues are in Uttar Pradesh, followed by Karnataka. The mills in Maharashtra have paid 90% of their arrears⁶.

⁵ A report by CARE ratings on sugarcane industry

⁶ <https://economictimes.indiatimes.com/news/economy/agriculture/sugar-mills-sweat-over-rs-16000-crore-cane-arrears/articleshow/75310289.cms>

“There is a speculation that farmers may shift from sugarcane farming if they do not receive payments in time or they lose crop as they are unable to harvest in time. However, this is the time when sugar mills should support and encourage farmers to remain in sugarcane farming since there are precedents of farmers switching over from sugarcane for any reason will not return to crop sugarcane for 4-5 years. Mills should promote the sustainable and good agriculture practices (GAPs) to reduce the cultivation cost of farmers and taking benefit from emerging market for sustainably produced products.”

Mr. Alok Pandey, SOLIDARIDAD Network

- Sugar mills have their own cane development programs under which they support farmers in sugarcane cultivation either through extension services or providing agriculture inputs. During the lockdown most of the sugar mills could not provide this kind of support. It may have an adverse impact on overall productivity of the crop.
- Ethanol is one among the important by-products of sugar mills. Oil Marketing Companies (OMCs) purchase ethanol from sugar Mills and mix it with fuels (petrol and diesel). Drastic reduction in demand for petrol & diesel has resulted in lower offtake of ethanol from OMCs depots and have created storage problems at the depots. Understandably OMCs have reduced purchase of ethanol from the sugar mills owing to problems of storage.

Institutional support to Farmers and Sugar Industry

- On request of Indian Sugar Mill Association (ISMA) oil marketing companies (OMCs) have agreed to relocate the ethanol in states where depots have storage capacities to accommodate the stock. This will reduce the disruptions caused in supply of ethanol and will benefit sugar mills.
- Sugar was declared an essential commodity. Hence, during lockdown, Government allowed harvesting, transportation and crushing operations of sugar mills.
- Some of the development organizations like SOLIDARIDAD who are supporting farmers through extension services and training around good agriculture practices have adopted digital mediums like WhatsApp, YouTube, Conference calls and other modes to reach out to farmers and disseminate requisite information.

In response to sudden spike in demand for hand sanitizers, the Ministry of Consumer Affairs has permitted sugar mills across the country to begin producing hand sanitizers. Presently, 24 sugar mills in UP and 19 sugar mills in Maharashtra and Some mills in Karnataka and Tamilnadu are producing hand sanitizers amidst the ongoing cane crushing season.