

## SUGAR

### An Unkind Cut In The Cane

Twenty-odd people, who have come from Limtok, near Hingoli in Maharashtra, to work as sugarcane-cutting labourers, are busy loading the tractor that would carry tonnes of sugarcane to the nearby sugar mill at Jaysingpur, in Kolhapur district. It is hot, the sun is in the eyes and the brown drying field jabs at the naked feet. Wrapping up for the day, they sit in the shade of fence shrubs for a few minutes before heading to the next field. During one such break earlier in the day, Pranita and her mother tried to buy a plastic pot for Rs 100 from a vendor on a bicycle. Their contractor had parted with a precious Rs 2,000 note so the labourers could buy essentials. However, the vendor said he didn't have change and left. There is no market nearby and, in any case, the debt-ridden workers are not allowed to take long breaks.

In and around the sugar belt, cane cutting, crushing and related activities have gathered momentum as November-December is the peak season. Sugarcane production has been lower than normal this year and farmers were expecting a good rate to compensate for the fall in output. However, post demonetisation, the entire chain of stakeholders is shaken for various reasons.

"We take money for the season in advance and usually end up finishing most of it even before we come here," says Pranita, who was pulled out of school after class nine to pay for the loan taken for her elder sister's marriage. "Once we are here, we sell the sugarcane waste as cattle fodder to sustain ourselves. If we don't complete sugarcane-cutting as per the contract, we carry the debt into the next season." She is here with her parents. Now she has to work until she pays back the previous loans and manages to get a fresh one for her wedding. Usually, they are paid Rs 50,000 per couple for the season that lasts around four months. The ones who bring their own bullocks to transport the cane are paid Rs 1 lakh. Even as the women gather to share their experiences, the frowning vehicle owner tries to hurry them up. "Sometimes, we can't even buy tea," says Ramesh, another worker. "Even our contractors are struggling. One told us they will be fined by the banks if they go to get cash exchanged for us."

At Sanjay Chaughule's farm, too, the scene is no different. The workers are from arid Beed, one of the poorest districts in Maharashtra and the stronghold of late Union rural development and panchayati raj minister Gopinath Munde's family. Rohini and Krishna Dhanve travelled overnight in a tempo that brought them here along with their pair of bulls. Here for the first time, she says, "We have no choice but to depend on the contractor for the smallest of requirements."

There are an estimated 1.5 lakh-plus migrant workers in the sugar belt in a season, employed in over 100 sugar mills. This season, the contractors (locally called mukadams) and the farmers, who mostly own one to five acres, are unable to pay their workers because most of their money is stuck in their accounts with cash-strapped cooperative banks.

"We hope things improve soon," says Chaughule. "Wages are an issue, but we are coping with it." What you hear about demonetisation depends on who you speak with. Talk to a farmer trying to sow a rabi crop, who needs to make multiple payments, and you hear that demonetisation is synonymous with high stress. But if it is someone in the middle of cane-cutting, who does not intend to go in for an intermediate crop, it comes across as not that bad—barring, of course, pending payments through District Central Cooperative Banks (DCCBs). "I planted sugarcane in the first week of November and had set aside Rs 15,000-20,000 for fertilisers, pesticides, workers' wages and other expenses," says Dilip Mangawe, who is worried about his freshly planted sugarcane on 1.5 acres of land near Hasur village in Kolhapur district.

“After November 8, I deposited my money in the cooperative bank. But they are able to give us only Rs 2,000 in a week, that too if you are lucky. How long can we run on credit?” Rabi farmers who want to plant chick peas are holding on to see if money will be released in the near future. The government has allowed seed and fertiliser to be procured on credit, but most farmers are unsure about the day-long trips to persuade the authorities. If, however, you are a vegetable grower, life is tougher. The anxiety is palpable at the Shahu Market Yard, Kolhapur, where wholesale deals are struck early, at 6.30-7 am. Truckloads of vegetables such as tomatoes, cauliflower, cabbage, brinjals, leafy vegetables and green peas are up for sale. The commission agents are busy keeping a record of unpaid bills—from the traders to the farmers via their agencies. Except for a few buyers, who are able to pay by cheques and perhaps benefit from the falling prices, everyone is worried.

(Source-<http://sugarnews.in/an-unkind-cut-in-the-cane/>, published on 16th December, 2016)

## **India's sugar production rises 11% in season 2016-17 till December 15: ISMA**

Sugar production in India for 2016-17 rose 11.18 percent to 53.29 lakh tonnes between October 1 and December 15 this year in comparison to the corresponding period last year, despite an estimate earlier that the world's biggest sugar consuming country would post a fall in production for the second straight year, according to an update by the Indian Sugar Mills Association (ISMA).

The production in sugar season (SS) 2015-16 was 47.93 lakh tonnes. The sugar season begins in October in India and ends in September.

India is the second-largest producer of the commodity in the world and production estimate for 2016-17 sugar season is 234 lakh (23.4 million) tonnes, down from 251 lakh (25 million) tonnes in the sugar season 2015-16, according to ISMA.

Listed Indian sugar companies include Dwarikesh Sugar Industries, Shree Renuka Sugars, EID Parry (India), Balrampur Chini Mills, Bannari Amman Sugars, DCM Shriram Industries, Bajaj Hindusthan, Simbaoli Sugars, Khaitan India and Mawana Sugars.

“In Maharashtra, 144 sugar mills are in operation and they produced 17.25 lakh tonnes of sugar till 15th December, 2016. In 2015-16 SS, there were 164 sugar mills in operation as on 15th December, 2015 and they had produced 22.50 lac tonnes.

“In Uttar Pradesh, as on 15th December, 2016, 115 sugar mills have produced 17.66 lakh tonnes of sugar, double to last season's production of 8.52 lakh tonnes when 105 sugar factories were operating as on 15th December, 2015.

“60 sugar mills in Karnataka, have produced 11 lakh tonnes of sugar till 15th December, 2016. This is about 0.71 lakh tonnes higher than the sugar production in 2015-16 SS as on 15th December, 2015. During the current 2016-17 SS, 60 sugar mills are in operation as on 15th December, as compared to 61 which operated on the corresponding date of 2015,” ISMA said in its statement on Friday.

Listed Indian sugar companies include Dwarikesh Sugar Industries, Shree Renuka Sugars, EID Parry (India), Balrampur Chini Mills, Bannari Amman Sugars, DCM Shriram Industries, Bajaj Hindusthan, Simbaoli Sugars, Khaitan India and Mawana Sugars.

Some of the top sugars producing countries of the world include Brazil, Thailand and China, in addition to India.

(Source- <http://sugarnews.in/indias-sugar-production-rises-11-in-season-2016-17-till-december-15-isma/published-on-16th-December-2016>)

## **Cash crunch dampens India's sugar demand – industry body**

India's sugar consumption in 2016/17 is likely to remain steady while the government's move to scrap high-value currency notes has affected demand, a leading industry body said on Friday.

The country's sugar consumption in the new season, which started on Oct. 1, is estimated to be between 24.5 million tonnes and 25 million tonnes, compared with 24.8 million tonnes a year ago.

The industry body had earlier expected consumption to rise to 25.5 million tonnes during the year. India is the world's biggest sugar consumer and second-biggest producer.

"Market sources suggest that sugar sales in the first fortnight of December 2016 have been badly affected and the depressed demand may continue till January 2017," the Indian Sugar Mills Association said.

Last month, Prime Minister Narendra Modi scrapped 500 and 1,000 rupee banknotes, or 86 percent of the value of cash in circulation, as part of a crackdown on corruption, tax evasion and financing militants.

Indian sugar mills produced 5.33 million tonnes of the sweetener between Oct. 1 and Dec. 15, over 11 percent higher than a year ago, as mills in the northern state of Uttar Pradesh started crushing earlier, it said.

The country is likely to produce 23.4 million tonnes of sugar in 2016/17, down about 7 percent from a year ago as back-to-back droughts ravaged the cane crop in top-producing state of Maharashtra.

(Source-<http://sugarnews.in/cash-crunch-dampens-indias-sugar-demand-industry-body/>, published on 16th December, 2016)

## **Cane crushing begins at Perambalur Sugar Mills**

### **5,288 farmers have registered with the mill for the current season**

The cane crushing season for 2016-17 began at the public-sector Perambalur Sugar Mills at Eraiur in the district on Friday.

About 5,288 farmers have registered about 11,455 acres of sugarcane with the mill for the current season.

About 3.50 lakh tonnes of sugarcane is expected during the season.

Cane exchange programme

Of this 2.75 lakh tonnes would be crushed at the Eraiyur factory, 50,000 tonnes would be sent to the National Cooperative Sugar Mill, Alanganallur, and 25,000 tonnes to M. R. Krishnamurthy Cooperative Sugar Mill, Sethiathope under the cane exchange programme.

The crushing season will go on till May 16, 2017, said an official press release.

Earlier, M. Sankaranarayanan, Chief Executive, Perambalur Sugar Mills, inaugurated the crushing season in the presence of senior officials and representatives of various farmers associations, the release added.

<http://www.thehindu.com/news/cities/Tiruchirapalli/Cane-crushing-begins-at-Perambalur-Sugar-Mills/article16895278.ece>

## COGEN

### India attains powerful 4th rank in global wind power installed capacity

India has been ranked fourth in the Global Wind Power Installed Capacity index with the Government undertaking the largest renewable capacity expansion programme to augment generation of wind energy from various sources to meet country's growing demands.

The Government is aiming to increase share of clean energy through massive thrust in renewables. Core drivers for development and deployment of new and renewable energy in India have been Energy security, Electricity shortages, Energy access and Climate change among others.

A capacity addition of 14.30 GW of renewable energy has been reported during the last two and half years under Grid Connected Renewable Power, which include 5.8 GW from Solar Power, 7.04 GW from Wind Power, 0.53 from Small Hydro Power and 0.93 from Bio-power.

The Government of India in its submission to the United Nations Frame Work Convention on Climate Change has stated that India will achieve 40 per cent cumulative Electric power capacity from non-fossil fuel based energy resources by 2030 with the help of transfer of technology and low cost International Finance including from Green Climate Fund.

As on October 31, 2016, Solar Energy Projects with an aggregate capacity of over 8727.62 MW have been installed in the country. The Government is playing an active role in promoting the adoption of renewable energy resources by offering various incentives, such as generation-based incentives (GBIs), capital and interest subsidies, viability gap funding, concessional finance, fiscal incentives among others.

The National Solar Mission aims to promote the development and use of solar energy for power generation and other uses, with the ultimate objective of making solar energy compete with fossil-based energy options.

The objective of the National Solar Mission is to reduce the cost of solar power generation in the country through long-term policy, large scale deployment goals, aggressive R&D and the domestic production of critical raw materials, components and products. Renewable energy is becoming increasingly cost-competitive as compared to fossil fuel-based generation.

In order to achieve the renewable energy target of 175 GW by the year 2022, the major programmes/schemes on implementation of Solar Park, Solar Defence Scheme, Solar scheme for CPUs Solar PV power plants on Canal Bank and Canal Tops, Solar Pump, Solar Rooftop etc have been launched during the last two years.

Various measures have been initiated and special steps taken in addition to providing financial support to various schemes being implemented by the Ministry of New and Renewable Energy for achieving the target of renewable energy capacity to 175 GW by the year 2022.

These include suitable amendments to the Electricity Act and Tariff Policy for strong enforcement of Renewable Purchase Obligation (RPO) and for providing Renewable Generation Obligation (RGO); setting up of exclusive solar parks; development of power transmission network through Green Energy Corridor project; identification of large Government complexes/buildings for rooftop projects among others. Other steps are provision of roof top solar and 10 per cent renewable energy as mandatory under Mission Statement and Guidelines for development of smart cities; amendments in building bye-laws for mandatory provision of roof top solar for new construction or higher Floor Area Ratio; infrastructure status for solar projects among others.

Some other measures include raising tax free solar bonds; providing long tenor loans; making roof top solar as a part of housing loan by banks/NHB; incorporating measures in Integrated Power Development Scheme (IPDS) for encouraging distribution companies and making net-metering compulsory and raising funds from bilateral and international donors as also the Green Climate Fund to achieve the target.

The increased use of indigenous renewable resources is expected to reduce India's dependence on expensive imported fossil fuels. India has an estimated renewable energy potential of about 900 GW from commercially exploitable sources like Wind 102 GW (at 80 meter mast height); Small Hydro 20 GW; Bio-energy 25 GW; and 750 GW solar power.

The Government of India has set a target of 175 GW renewable power installed capacity by the end of 2022. This includes 60 GW from wind power, 100 GW from solar power, 10 GW from biomass power and 5 GW from small hydro power. A target of 16660 MW grid renewable power (wind 4000 MW, solar 12000 MW, small hydro power 250 MW, bio-power 400 MW and waste to power 10 MW), has been set for 2016-17.

Besides, under off-grid renewable system, targets of 15 MW equivalent waste to energy, 60 MW equivalent biomass non-bagasse cogeneration, 10 MW equivalent biomass gasifiers, 1.0 MW eq. small wind/hybrid systems, 100 MW equivalent solar photovoltaic systems, 1.0 MW equivalent micro hydel and 100,000 nos. family size biogas plants have been set for 2016-17.

Several schemes namely Defence scheme, Central Public Sector Undertakings scheme, Bundling scheme, Canal Bank/Canal Top scheme, VGF Scheme, Solar Park scheme, Solar rooftops, have been initiated/launched by the Ministry under National Solar Mission which are under implementation. Under Defence scheme against a target of 300 MW, 347 MW has been sanctioned, under Central Public Sector Undertakings scheme against a target of 1000 MW, all capacity sanctioned, under 3000 MW Bundling scheme, Tranch-I: 3000 MW has been tendered, under 100 MW Canal Bank/Canal Top scheme, all capacity sanctioned, under 2000 MW & 5000 MW VGF Scheme, tenders issued for 4785 MW, and under 20,000 MW Solar Park scheme, 34 Solar parks have been approved in 21 States with an aggregate capacity of 20,000 MW.

A target of 40 GW grid connected solar rooftops to be achieved by 2022 has been set. So far, about 500 MW have been installed and about 3,000 MW has been sanctioned which is under installation. All major sectors i.e. Railways, Airports, Hospitals, Educational Institutions, Government Buildings of Central/State/PSUs are being targeted besides, the private sector.

A massive Grid Connected Solar Rooftop Programme has been launched with 40 GW target. State Electricity Regulatory Commissions of 30 States/UTs notified regulations for net-metering/feed-in-tariff mechanism. Rs.5000 crore approved for solar rooftops. About 500 MW solar rooftop capacity installed till September 30.

During the year 2015-16, wind power capacity addition of 3.42 GW was made, which is highest ever wind power capacity addition in the country during a single year. The present wind power installed capacity in the country is around 28.28 GW. Now, in terms of wind power installed capacity India is globally placed at fourth position after China, US and Germany.

India has a strong manufacturing base of wind power equipment in the country. Presently, there are 20 approved manufacturers with 53 models of wind turbines in the country up to a capacity of 3.00 MW single turbines. Wind turbines being manufactured in India are of international quality standards and cost-wise amongst the lowest in the world being exported to Europe, USA and other countries. India has a long coastline where there is a good possibility for developing offshore wind power projects.

The National Offshore Wind Energy Policy has been cleared and the same has been notified on October 6, 2015. Some of the guidelines are—Comprehensive Guidelines for Development of On-shore Wind Power Projects in the country have been formulated and issued on October 22. Guidelines for implementation of “Scheme for Setting up of 1000 MW Inter-State Transmission System (ISTS) – connected Wind Power Projects” issued on October 22 this year.

A capacity addition of 14.30 GW of renewable energy has been reported during the last two and half years under Grid Connected Renewable Power, 0.53 GW from Small Hydro Power. Biomass power includes installations from biomass combustion, biomass gasification and bagasse co-generation. During 2016-17, against a target of 400 MW, 51 MW installations of biomass power plants has been achieved making a cumulative achievement to 4882.33 MW.

Family Size Biogas Plants mainly for rural and semi-urban households are set up under the National Biogas and Manure Management Programme (NBMMMP). During 2016-17, against a target of 1.00 lakh biogas plants, 0.26 lakh biogas plants installations has been achieved making a cumulative achievement to 49.35 lakh biogas plants.

A special programme for 1,00,000 solar pumps launched of which 31,472 Solar Pumps installed in 2015-16, higher than total number of pumps installed during last 24 years i.e. since beginning of the programme in 1991. A solar Power Plant of capacity exceeding 200 MW is being set up at the Central State Farm at Jetsar, Rajasthan to generate clean energy for the nation. Rs.38,000 crore Green Energy Corridor is being set up to ensure evacuation of Renewable Energy. Power Grid Corporation of India Limited has sought a loan assistance of 1,000 million dollars from the Asian Development Bank (ADB) comprising of Sovereign guaranteed loan of 500 million dollars and Non-Sovereign loan of US 500 million dollars.

The Loan would be utilized for funding of the following transmission projects including a project under Green Energy Corridor projects in next three-four years. Solar tariffs have fallen to an unprecedented low of Rs 4.34/kWh through reverse auction for one of six projects of 70 MW each to be put up in Rajasthan under the National Solar Mission. NTPC on January 18 , 2016 conducted the reverse bidding for 420 MW solar power projects.

However, the tariff had further fallen to Rs 3 per unit, which was quoted by Amplus Energy Solutions in an auction for rooftop solar power conducted by Solar Energy Corporation of India (SECI). The Power Minister Piyush Goyal has launched "Surya Mitra" mobile App on Rooftop Solar Power. The GPS based mobile app is a high end technology platform which can handle thousands of calls simultaneously and can efficiently monitor all visits of Suryamitra's. Surya Mitra Scheme has been launched for creating 50,000 trained solar photovoltaic technicians by march 2020. A total number of 5492 Surya Mitra's have been trained as on September 30, 2016 and more than 3000 are undergoing training. A network of over 150 Institutions, spread all over the country, have been created for implementing the Surya Mitra scheme.

In addition, short term training programmes for small hydro, entrepreneurship development, operation & maintenance of solar energy devices and boiler operations in co-generation plants, have been organised. About 7800 persons have been trained through these short term training programmes during the last two years.

Some other initiatives are—International Solar Alliance was launched as a special platform for mutual cooperation among 121 solar resource rich countries lying fully or partially between Tropic of Cancer and Tropic of Capricorn at COP21 in Paris on November 30, 2015 to develop and promote solar energy, with its headquarters in India.

Bank loans up to a limit of Rs.15 crores will be given to borrowers for purposes like solar based power generators, biomass based power generators, wind power systems, micro-hydel plants and for renewable energy based public utilities like Street lighting systems, and remote village electrification. For individual households, the loan limit will be Rs.10 lakh per borrower.

Coal cess has been increased eight times from Rs 50 to Rs 400/ton in the last two years (2014-15) which will make available around Rs.40,000 crore/year for supporting and incentivizing development of Clean Energy projects in the country. Also, Foreign Direct Investment up to 100 per cent is permitted under the automatic route for renewable energy generation and distribution projects subject to provisions of The Electricity Act, 2003.

In order to achieve the targets, various initiatives have been taken by the Government which are amendments in the Tariff Policy for strong enforcement of Renewable Purchase Obligation (RPO) and for providing Renewable Generation Obligation; setting up of exclusive solar parks; development of power transmission network through Green Energy Corridor project; identification of large government complexes/ buildings for rooftop projects and provision of roof top solar and 10 percent renewable energy as mandatory under Mission Statement and Guidelines for development of smart cities among others

(Source-<http://www.dailyexcelsior.com/india-attains-powerful-4th-rank-global-wind-power-installed-capacity/>, published on 18<sup>th</sup> December, 2016)

## **ETHANOL**

### **Expert study points to roadblocks in ethanol blending programme**

The government's agenda to implement a 20 per cent mandatory ethanol blend in petrol will require an integrated approach in the Ethanol Blending Programme (EBP), according to an expert report on 'fuel blending in India'.

The report notes that there has been a consistent shortfall in supply of ethanol in the past, mainly on account of the cyclical nature of the sugarcane harvests in the country. The report also notes that there is "lack of an integrated approach in the EBP across its value chain."

The report was prepared by the University of Petroleum and Energy Studies, Dehradun, and the Centre for Study of Science, Technology and Policy, Bengaluru.

As per the projection made by the expert study, there would be a deficit in supply of ethanol to the tune of 822 million litres (27 per cent) when demand from domestic chemical and potable alcohol industry is also factored in. India's current domestic ethanol capacity stands at approximately 2,240 million litres annually.

In 2016-17, demand from the chemical and potable alcohol industries is projected to be around 1,252 million litres and 1,030 million litres respectively.

The National Policy on Bio-fuels has set a target of 20 per cent blending of biofuels, both for bio-diesel and bio-ethanol. However, India is projected to achieve an average blending rate of close to 5 per cent by the end of 2016.

#### Regulatory hurdles

"There are significant regulatory hurdles in programme implementation stemming from varied administrative and duty requirements by different states.

These requirements, in conjunction with lack of a coherent pricing framework have previously dissuaded sugar mills from directing their supplies towards blending," the report said.

Projecting significant potential for an overall improvement in balance of trade with increased blending in the context of a global crude oil price recovery, the report has called for a cogent and consistent policy and administrative framework in the program implementation for the success of EBP.

Highlighting the benefits of the programme, the report estimates a foreign exchange saving to the tune of \$6.12 billion from India's oil import bill by 2021-22 if the targeted 20 per cent ethanol mix in transportation fuel is achieved on schedule.

**(Source-<http://sugarnews.in/expert-study-points-to-roadblocks-in-ethanol-blending-programme/>, published on 14th December, 2016)**

#### Quote of the day

'Knowledge is power. Information is liberating. Education is the premise of progress, in every society, in every family.' -Kofi Annan