

DALMIA BHARAT SUGAR & INDUSTRIES LTD UNIT- NIGOHI

Presented By:

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OUR PRODUCTS



Dalmia
Bharat Sugar

**A TRUE SANJEEVANI
IN TODAY'S TIMES**

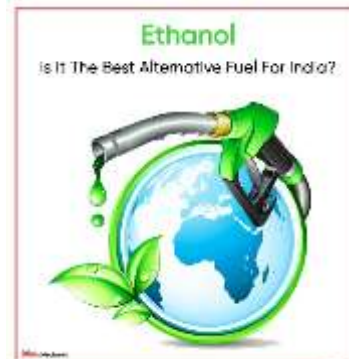
Insta-protection

- Effective against Coronavirus
- Kills 99.9% germs
- 80% alcohol content
- WHO recommended formulation

Dalmia Sanjeevani
HAND SANITISER

Available in 100ml, 200ml, 500ml, 1L, 5L, 20L and 200L sizes.

For enquiries, call : 07500 90936
E mail : customerscare@dalmiasugar.com



Ethanol

Is It The Best Alternative Fuel For India?



Dalmia
utsav
ORGANIC PURITY

SULPHUR FREE
WHITE CRYSTAL SUGAR

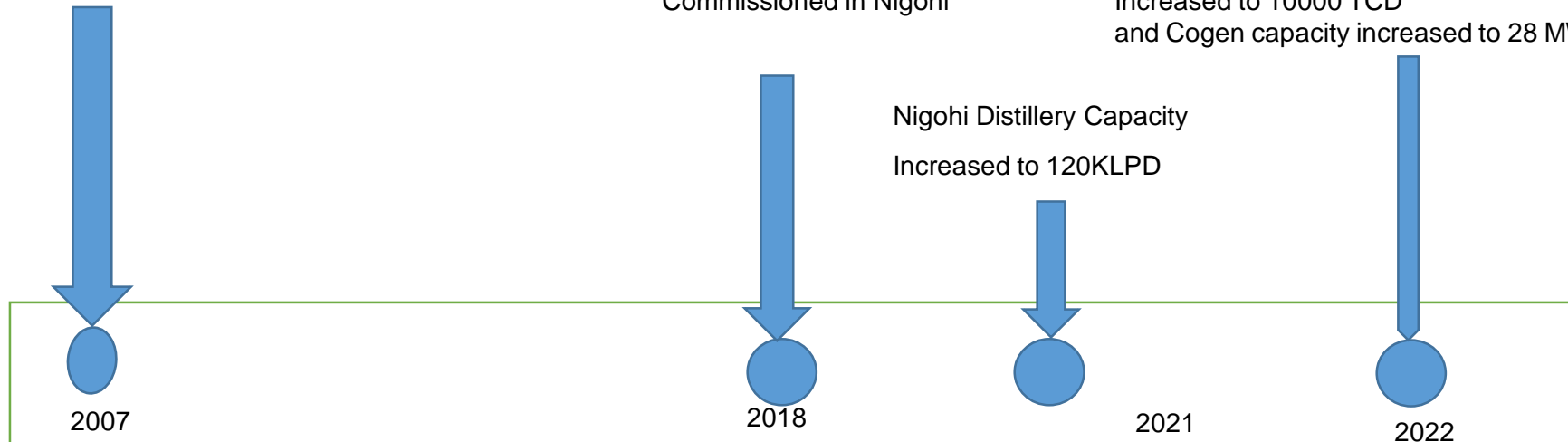
Sulphur Free White Crystal Sugar

Nigohi unit
Was commissioned in 2007 with 7500 TCD
crushing capacity & Co-gen capacity 27 MW

60KLPDDistillery Unit
Commissioned in Nigohi

Nigohi Unit Crushing Capacity
Increased to 10000 TCD
and Cogen capacity increased to 28 MW

Nigohi Distillery Capacity
Increased to 120KLPD

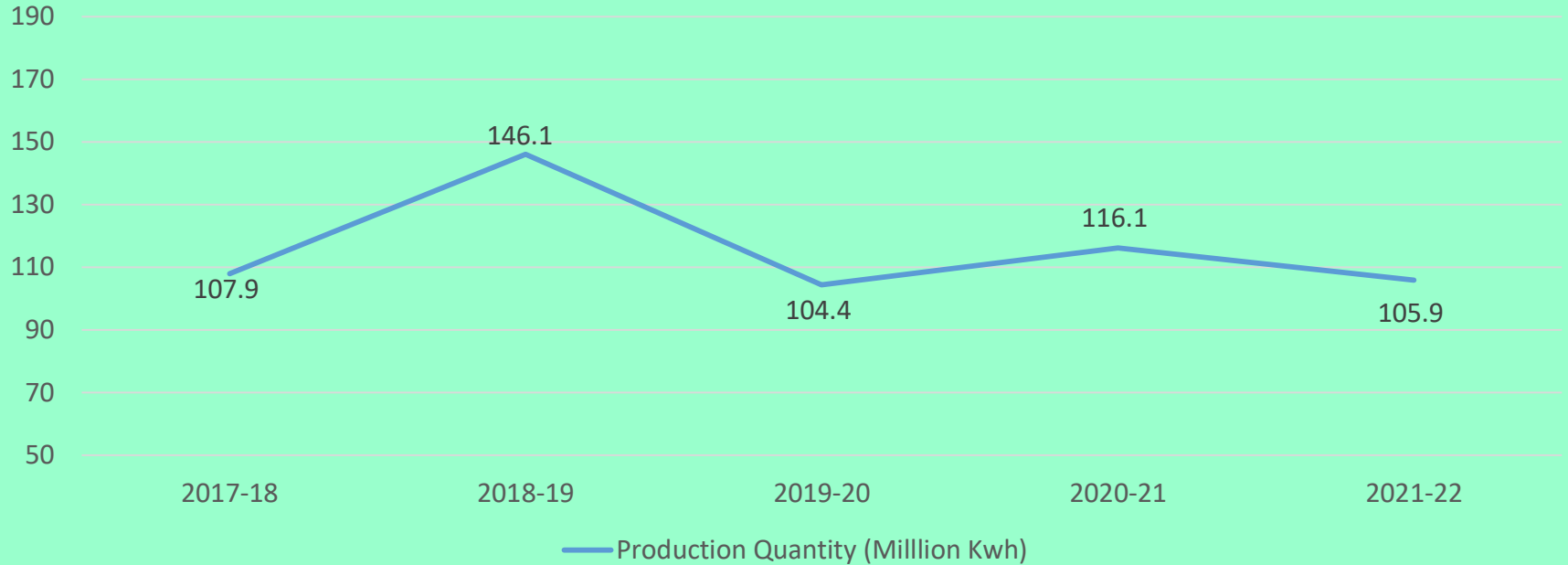


TURN OVER IN MILLION RUPEES (FY 21-22)	TOTAL ENERGY COST OF SUGAR MANUFACTURING COST (%)	ELECTRICAL ENERGY COST (Rs./Kwh)
7572	8.99	1.79

POWER GENERATION DATA



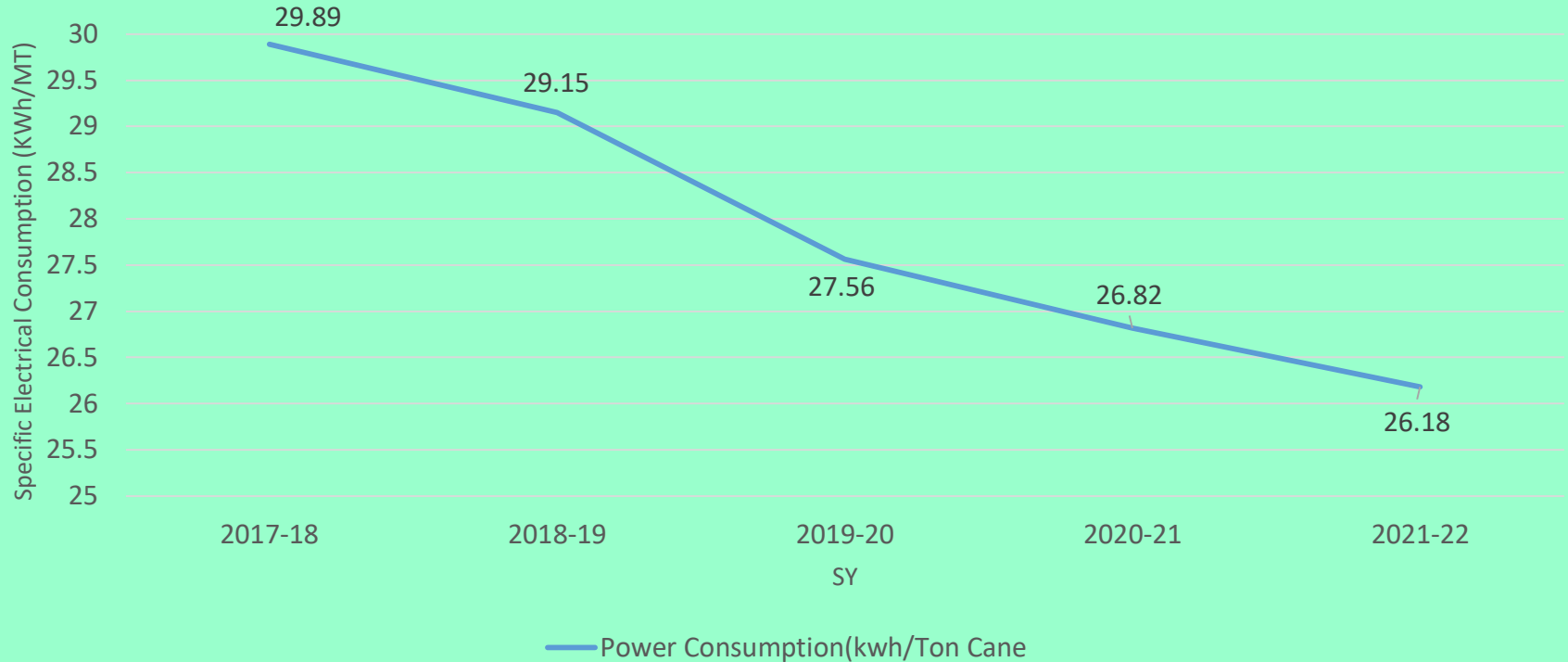
Power Generation Data FY



ELECTRICAL ENERGY CONSUMPTION (KWh/MT OF CANE)

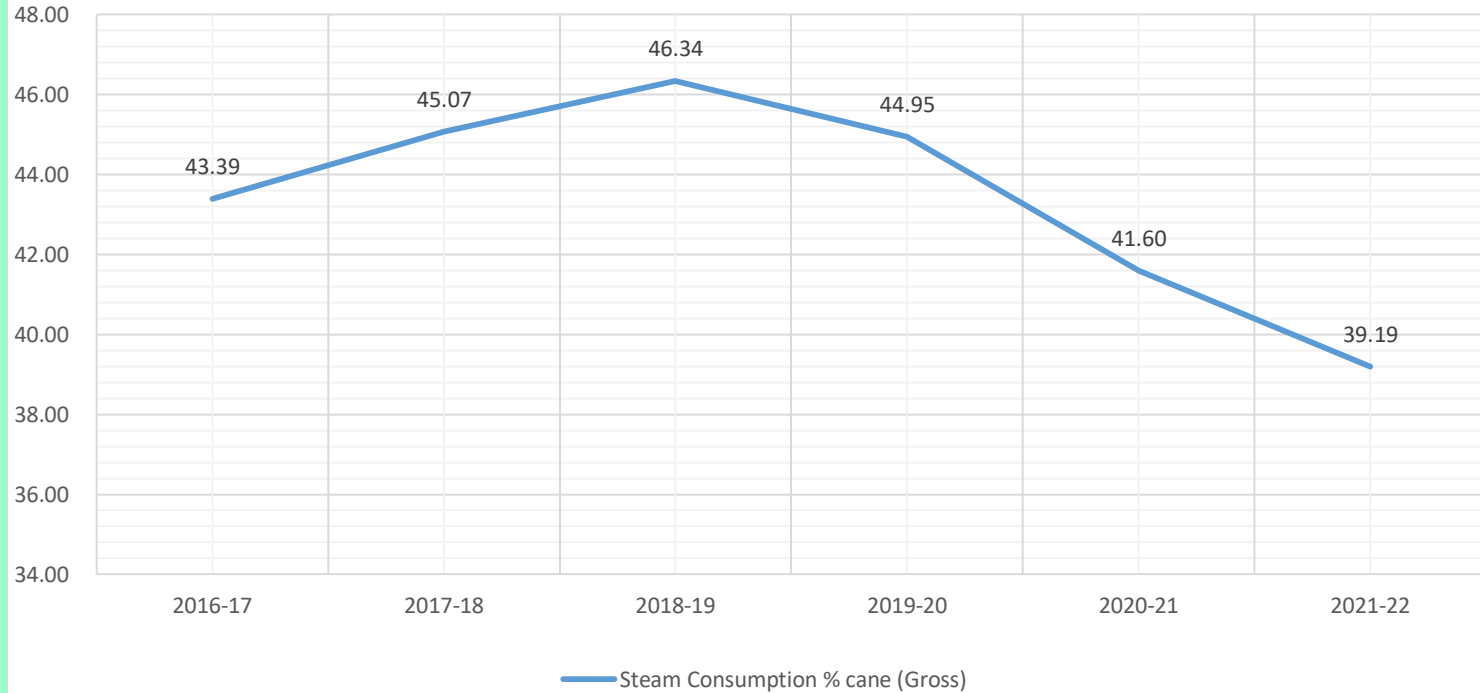


Specific Electrical Consumption



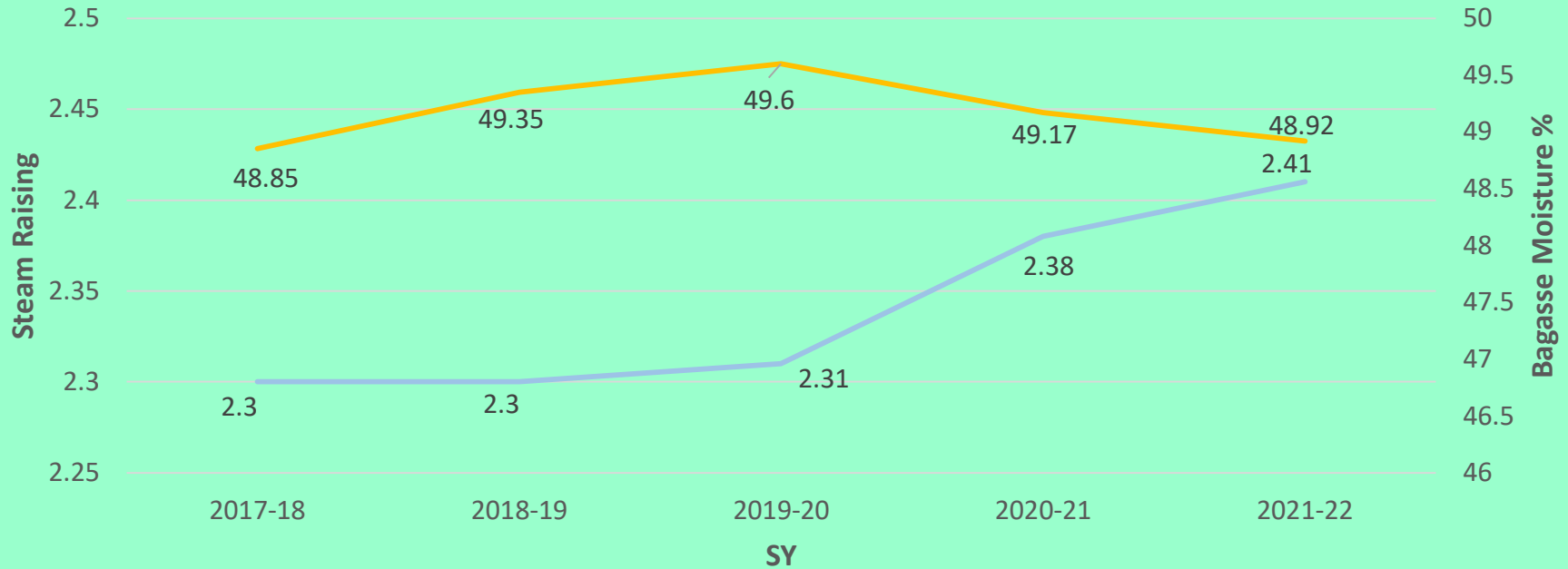
THERMAL ENERGY CONSUMPTION (STEAM %CANE)

Steam Consumption % cane (Gross)



BAGASSE MOISTURE Vs STEAM RAISING

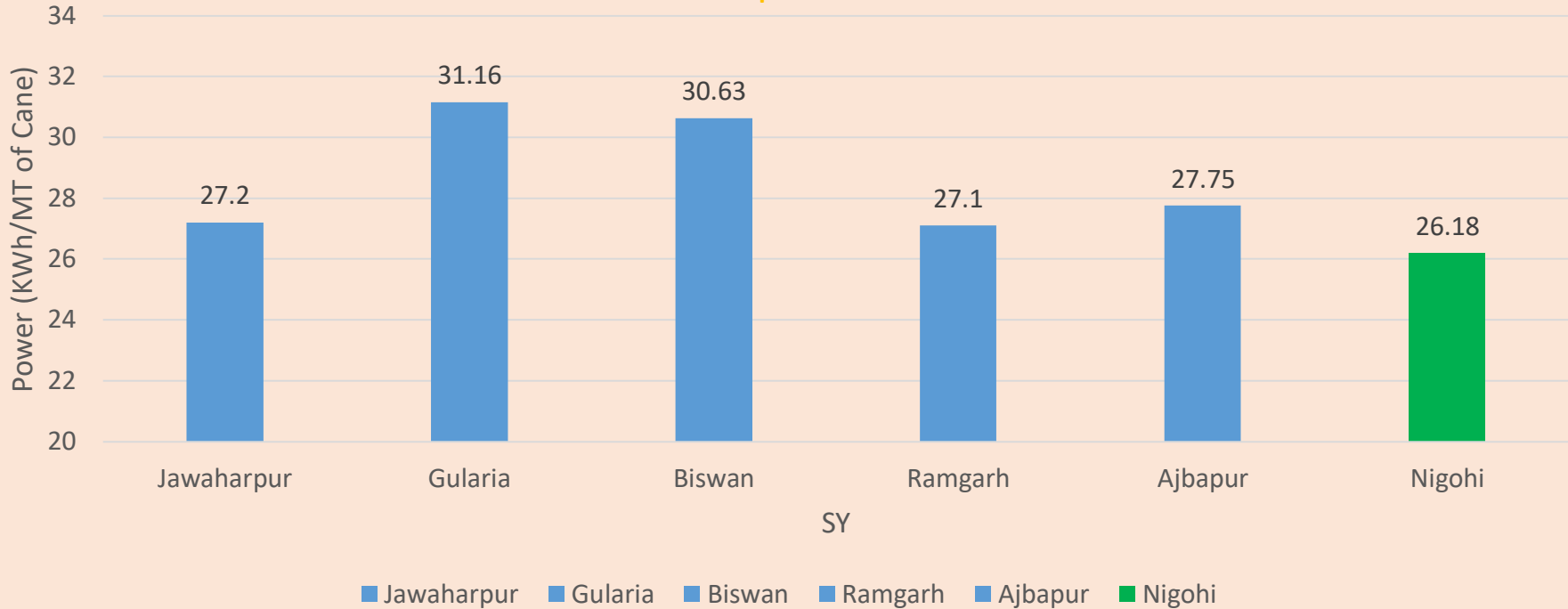
Moisture V/s Steam Raising



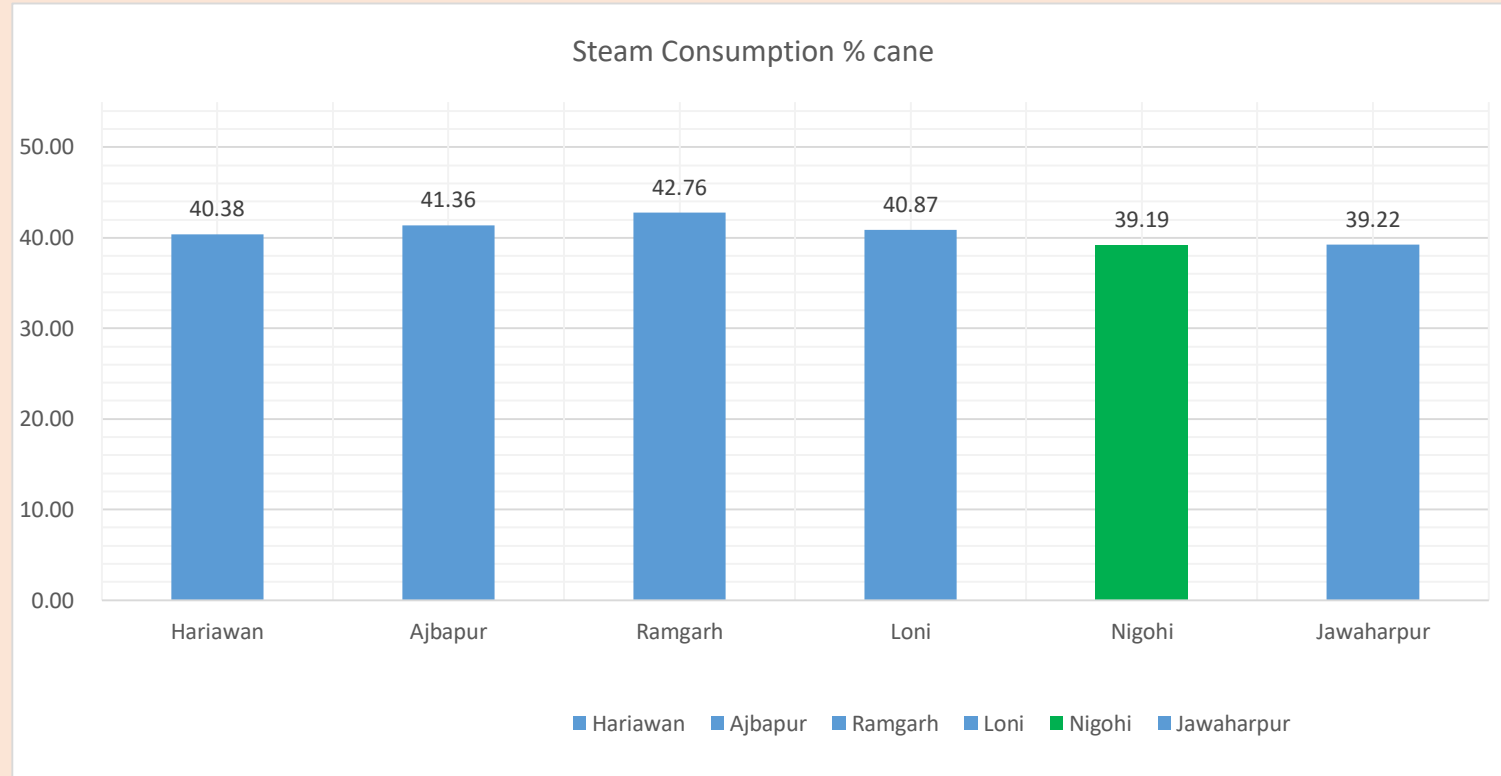
— Steam Raising — Bagasse Moisture

BENCHMARKS - SPECIFIC POWER CONSUMPTION FOR SEASON 2021-22

Power KWH per ton of Cane



BENCHMARKS - SPECIFIC STEAM CONSUMPTION



Energy Saving Projects Implemented in last three years

Year	No of energy saving projects	Investment (INR Million)	Electrical Saving (Million KWH)	Thermal Savings (Million K Cal/ MTOE)	Savings (INR Million)	Impact on SEC (Electrical, Thermal)
2019 - 20	3	10.7	1.5		4.498	(1.39, 1.59)
2020 - 21	2	120.01	.032	8844	78.492	(3.35, 0.74)
2021 -22	3	140	9.336	73280	99.415	(2.41, 0.64)

ENERGY CONSERVATION ACTIVITIES

In year 2021-22 , we replaced 27 MW Condensing turbine by 28 MW Back Pressure Turbine in our unit with investment of Rupees 9.5Cr. We have got pay back in one season. Following were the highlights after addition of this turbine

DESCRIPTION	UOM	2020-21	2021-22
Bagasse GCV	Kcal/Kg	2307	2314
Steam Enthalpy at 87 ATA	Kcal	816	816
Steam generation	MT	155	152
Bagasse Raising		2.38	2.41
Bagasse Consumption per day	MT	1557	1512
Bagasse saving per day	MT	433	753

ENCON PROJECTS IMPLEMENTED - ION EXCHANGE RESIN COLUMNS

- *We installed Ion Exchange Columns in the existing refinery system & expanded the refining capacity to 1200 TPD.*
- *Steam consumption reduced after its installation to the extent of **0.2-0.4 % on cane** as the re-circulation of refinery molasses within the process reduced..*
- *It facilitates us in production of **export quality sugar** with average colour value below **25 IU** throughout the season .*
- *The sugar keeping quality and shelf life improved.*



PROJECTS IMPLEMENTED - ROTARY SUGAR DRIER

- *RSD with capacity of 65TPH sugar was installed as Drying unit along with Dehumidifier and chiller units.*
- *RSD enables us to produce more smaller size grain quantity upto **95%** of total sugar production.*
- *The outlet sugar has moisture less than **0.04%** which improves the sugar keeping quality and shelf life.*
- *The bagged sugar has temperature less than **35°C**, which is optimum temperature and improves the sugar keeping quality and shelf life.*
- *The dust in the S-30 bagged sugar remains less than **0.75%***

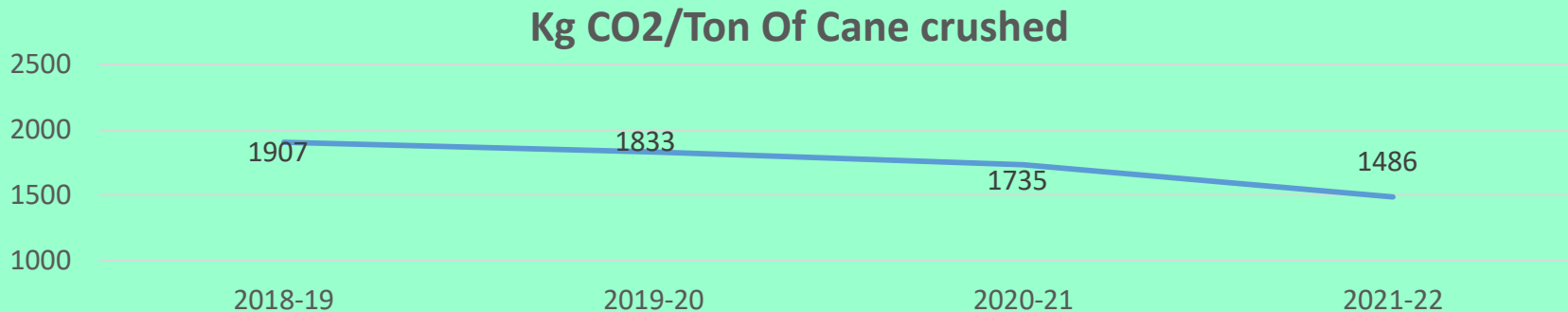


Waste Utilization and Management

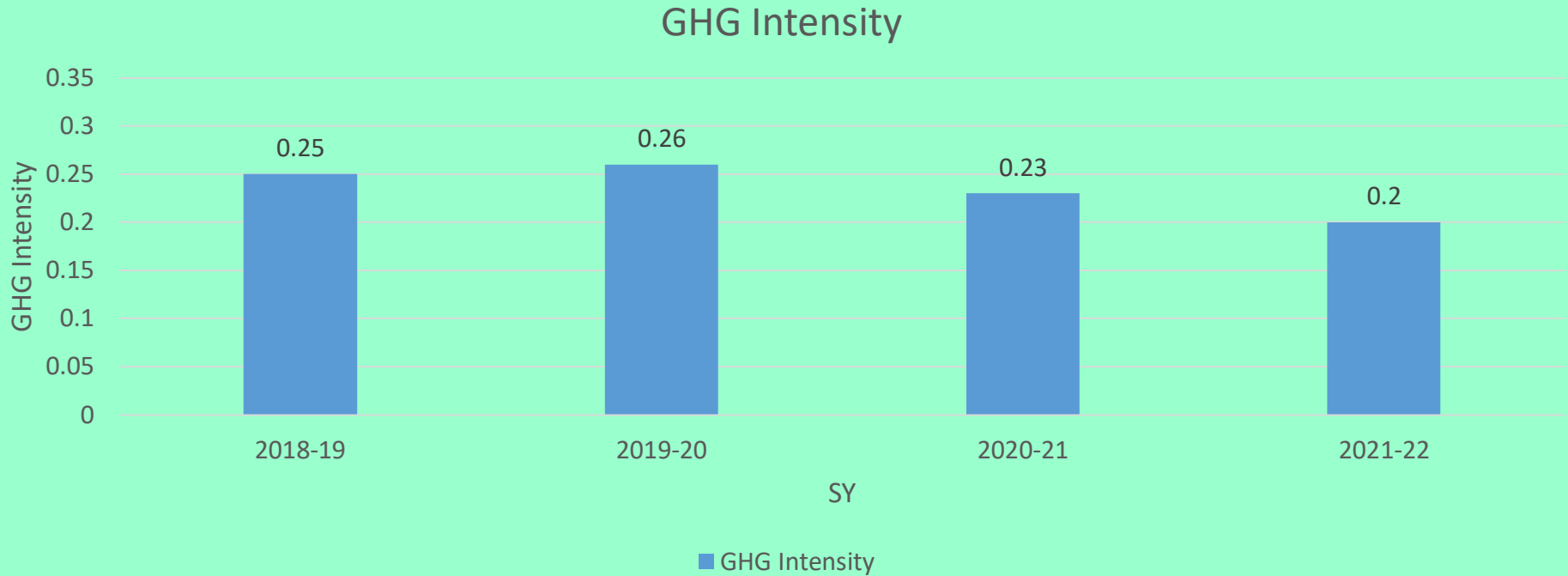
- Filter Cake - Used as manure by farmers
- Bagasse - Used to generate power for captive use and surplus sold to UPPCL
- Spent Wash - Used as fuel to for cogeneration
- Incineration Boiler Ash - Used as fuel to for cogeneration
- Effluent Water - After treatment treated water recycled for plant use and balance is used by farmers for irrigation.

EMISSIONS

FY	KG CO2 PER TON OF CANE CRUSHED
2018-19	1982
2019-20	1562
2020-21	1913
2021-22	1486



GREEN HOUSE GASES (GHG)



Innovation Projects

- 100% treatment and utilization of effluent water. We are first in our industry successfully utilized effluent treated water for 87 ATA high pressure boiler and eliminated ground water requirement for power plant operation.
- We replaced our condensing cum extraction turbine with back pressure turbine which resulted in increase in plant crushing capacity without increasing steam generation capacity.

Effluent Treatment

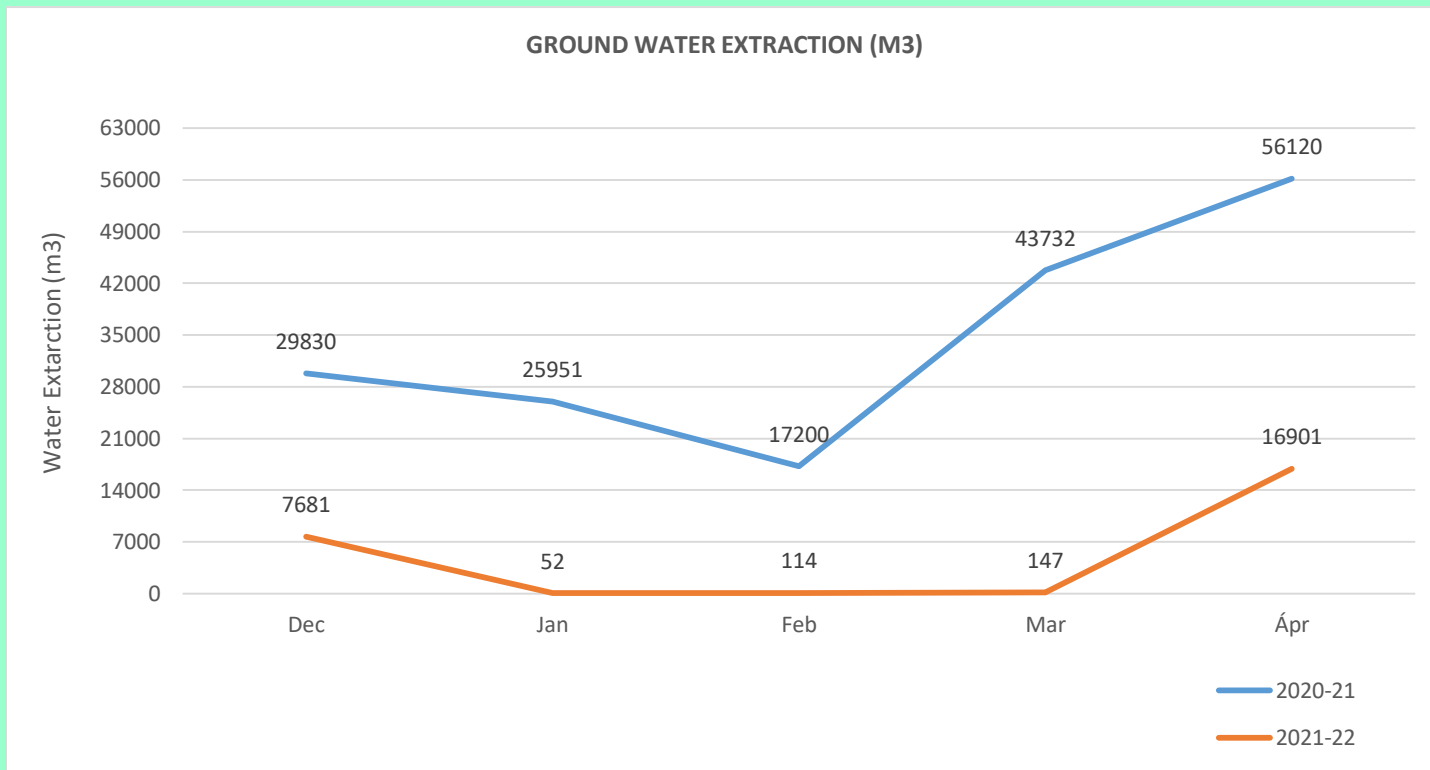


PROJECTS IMPLEMENTED - ANAEROBIC DIGESTOR WITH EXISTING ETP

- *We enhance our effluent treatment plant to the treatment capacity of 3200 m³/day.*
- *Effluent from Boiling House, Mill House, Power plant, Distillery condensate and Spray Pond is being treated here.*
- *The outlet treated water is being utilised as raw water in power plant and distillery process.*
- *The zero ground water extraction for power plant was achieved during peak crush.*
- *All treated water parameters are under the control limits set by CPCB.*



REDUCTION IN GROUND WATER EXTRACTION (M3)

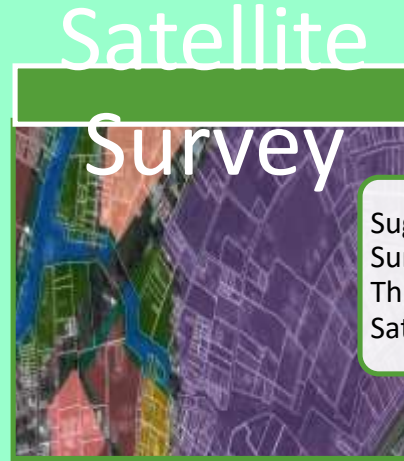


GREEN SUPPLY CHAIN MANAGEMENT

DRONE CANE SURVEY



Sugar Cane Survey possibility through Drone



Sugar Cane Survey Through Satellite

VARIETY VARIFICATION IN YARD AND CANE UNLOADING CONFIRMATION ON CANE CARRIER



GREEN SUPPLY CHAIN MANAGEMENT

RFID SYSTEM

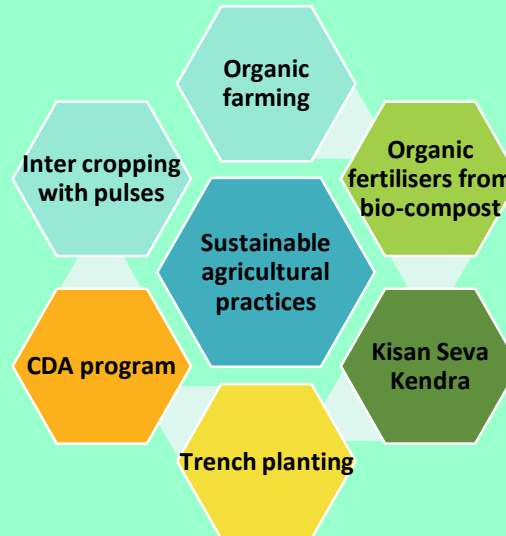
Radio frequency identification (RFID) of vehicle has been incorporated in cane H & T vehicles which help in minimising the traffic at factory gate and speed up the process of cane tokening and enable auto queuing.

Also help in identify actual yard balance

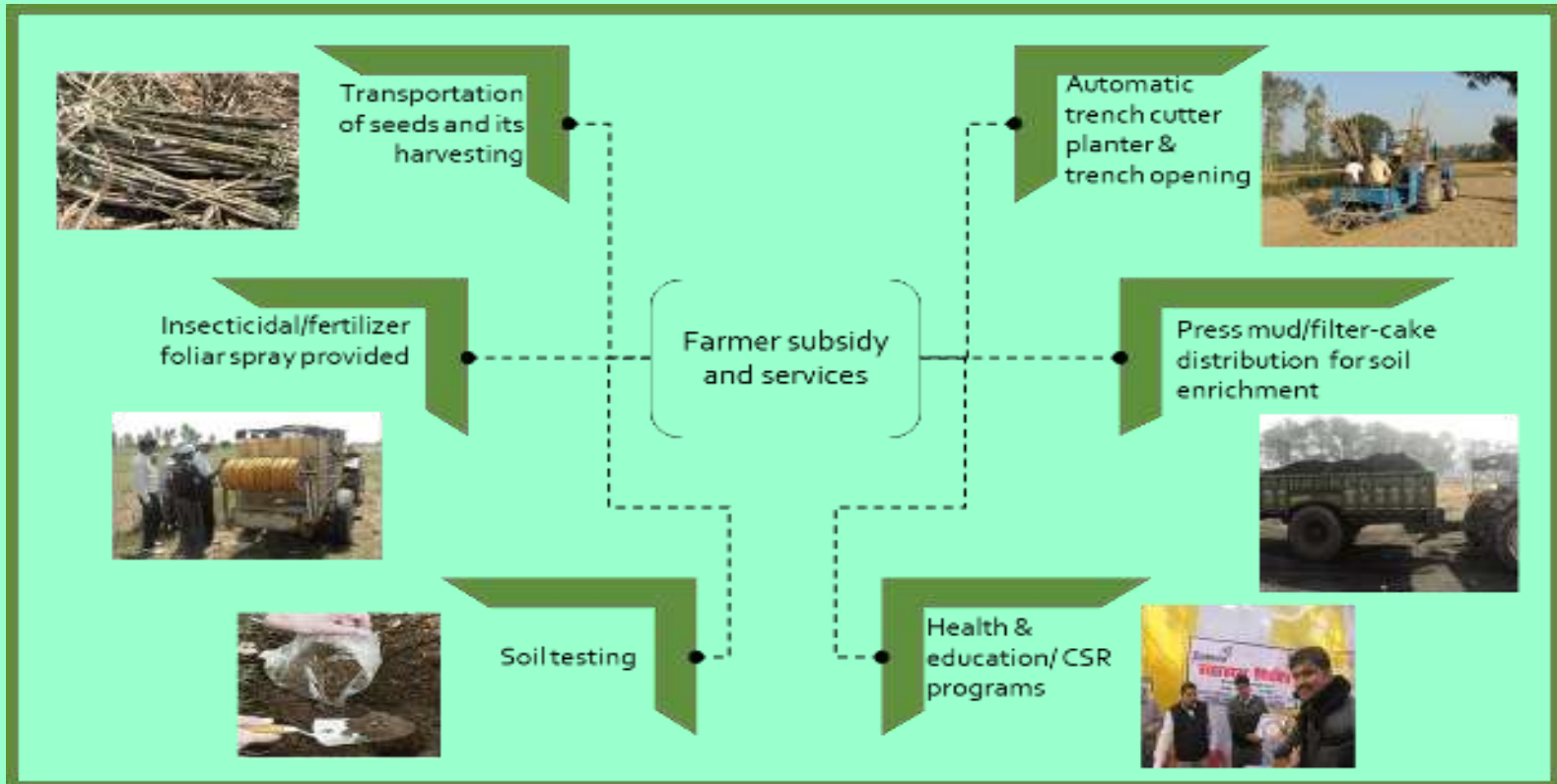


GREEN SUSTAINABILITY AGRICULTURAL PRACTICES

Sustainable agricultural practices are strengthened through our Green Growth approach and are driven by farmers as well as our employees. We use this approach to improve farm productivity by introducing organic activities, providing subsidised fertilisers and educating farmers. Several measures such as soil improvement, inter cropping for nitrogen fixation, green manuring, vermi-composting have been introduced to boost sustainable practices in agriculture. Drip irrigation and drought resistant variety of cane is planted in areas with very less water availability.

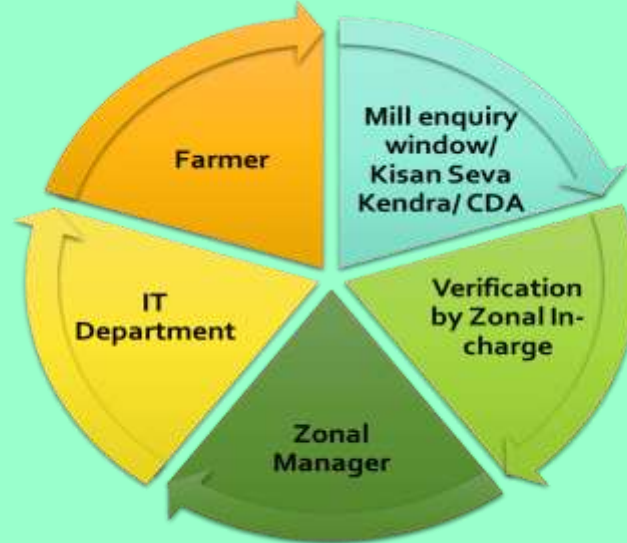


GREEN SUSTAINABILITY AGRICULTURAL PRACTICES - SUSTAINABLE AGRICULTURAL PRACTICES



GREEN SUSTAINABILITY AGRICULTURAL PRACTICES - GRIEVANCES MECHANISM

We have a strong grievance mechanism system to address farmer issues. A farmer can report online through www.mykisaan.org, upcane.gov.in, www.caneup.in, E-ganna-AAP, portals or toll-free numbers 1800-121-3203, 1800-103-5823. Offline, they can approach to Mill Enquiry Window or Kisan Seva Kendra (KSK) or Cane Development Assistant (CDA) to report any issue. Any complaint is addressed within 3 days of being reported.



SUSTAINABILITY INITIATIVES



ESS

Soil and Water Conservation

MUD

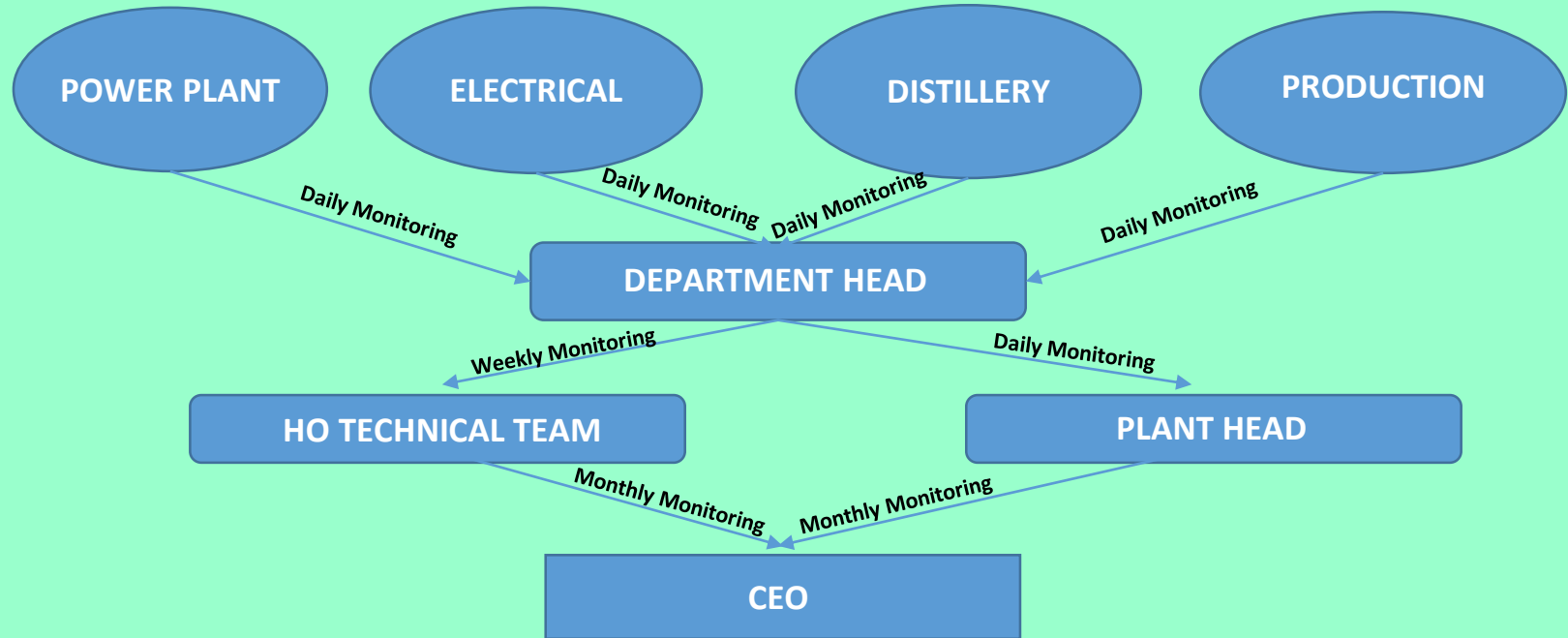
- ❖ Construction and rejuvenation of 31 village ponds was undertaken in the three locations of Uttar Pradesh.
- ❖ These 31 ponds will help in conservation of 22.34 crore litres of water in a year benefitting 5000 farmers and a large number of villagers. 45 new ponds have been identified for rejuvenation in this year.
- ❖ 4200 saplings of different plant species being planted on the banks and bunds of the de-silted 31 village ponds in all the 3 locations in Uttar Pradesh.



Access to Clean Energy

- ❖ Mini Grid project distributing electricity to 102 households and 119 farmers for pumping water for irrigating their lands.
- ❖ Revenue of INR 2.18 lakh generated from both the Mini Grids till Dec' FY20.
- ❖ 96 households from Jawaharpur, Nigohi and Ramgarh connected to Ujjwala Scheme of the Government to avail the LPG connections.

MONITORING & REPORTING SYSTEM



AWARDS



ICC Social Impact Awards 2019

DBSIL was awarded by Indian Chamber of Commerce in 2019 under the theme 'Access to Clean Energy'.



IICA-NGOBOX Good Practice Recognition Awards 2015

NGOBOX awarded DBSIL for Energy Conservation and Climate Change Mitigation



ET 2 GOOD 4 GOOD

DBSIL was awarded by ET under CSR category in 2017



Golden Peacock Awards[®]

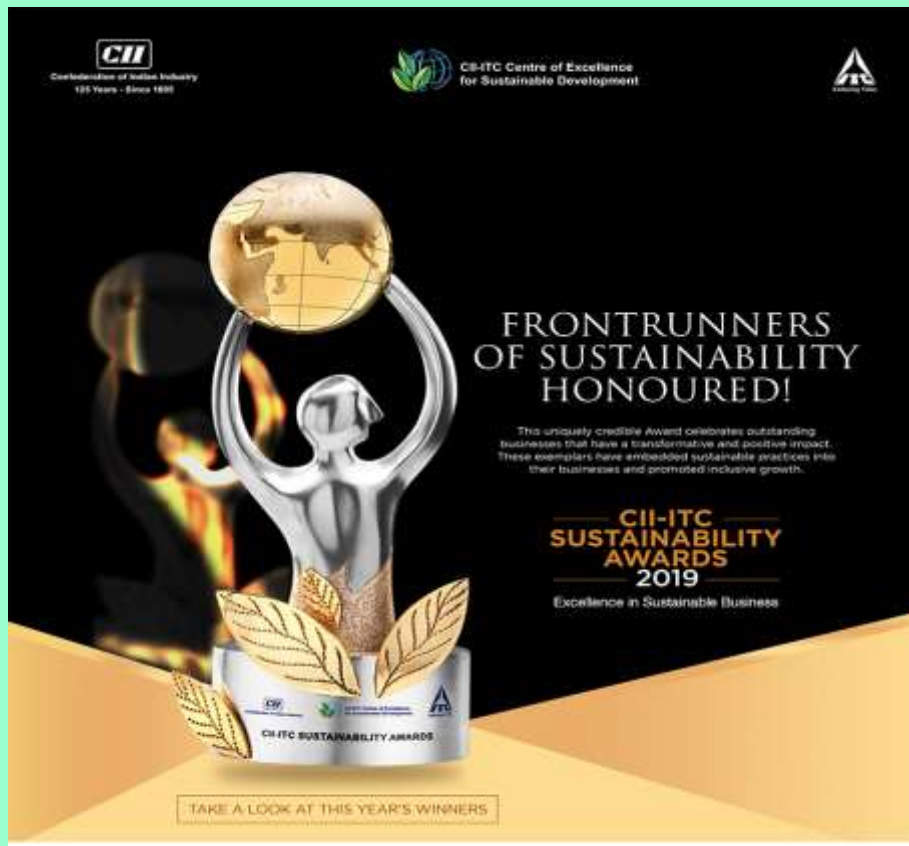
A Strategic Tool to Lead the Competition

Golden Peacock Awards (CSR Awards 2015)

Institute of Directors awarded DBSIL in 2015

Industry Excellence Award





CII
Confederation of Indian Industry
195 Years - Since 1850

CII-ITC Centre of Excellence for Sustainable Development

FRONTRUNNERS OF SUSTAINABILITY HONOURED!

This uniquely credible Award celebrates outstanding businesses that have a transformative and positive impact. These exemplars have embedded sustainable practices into their businesses and promoted inclusive growth.

CII-ITC SUSTAINABILITY AWARDS 2019
Excellence in Sustainable Business

TAKE A LOOK AT THIS YEAR'S WINNERS

INTEGRITY
TRUST & RESPECT
HUMILITY
COMMITMENT




DBSIL Wins CII-ITC Sustainability Award 2019

Dalmia Bharat Sugar and Industries Ltd. (DBSIL) was conferred the prestigious **CII-ITC Sustainability Award 2019** at a virtual award ceremony on Friday, 10th July, 2020. DBSIL received the '**Commendation for Significant Achievement in Corporate Social Responsibility**' for its excellent efforts in deployment of policy and processes.

Mr. BB Mehta – Whole Time Director, DBSIL attended the presentation in the presence of Shri Prakash Javadekar – Minister of Heavy Industries and Public Enterprises of India.

One of the most credible sustainability awards in the country, the CII-ITC Sustainability Awards recognise excellence in businesses that are seeking ways to be more sustainable and inclusive in their activities.

Thank You

