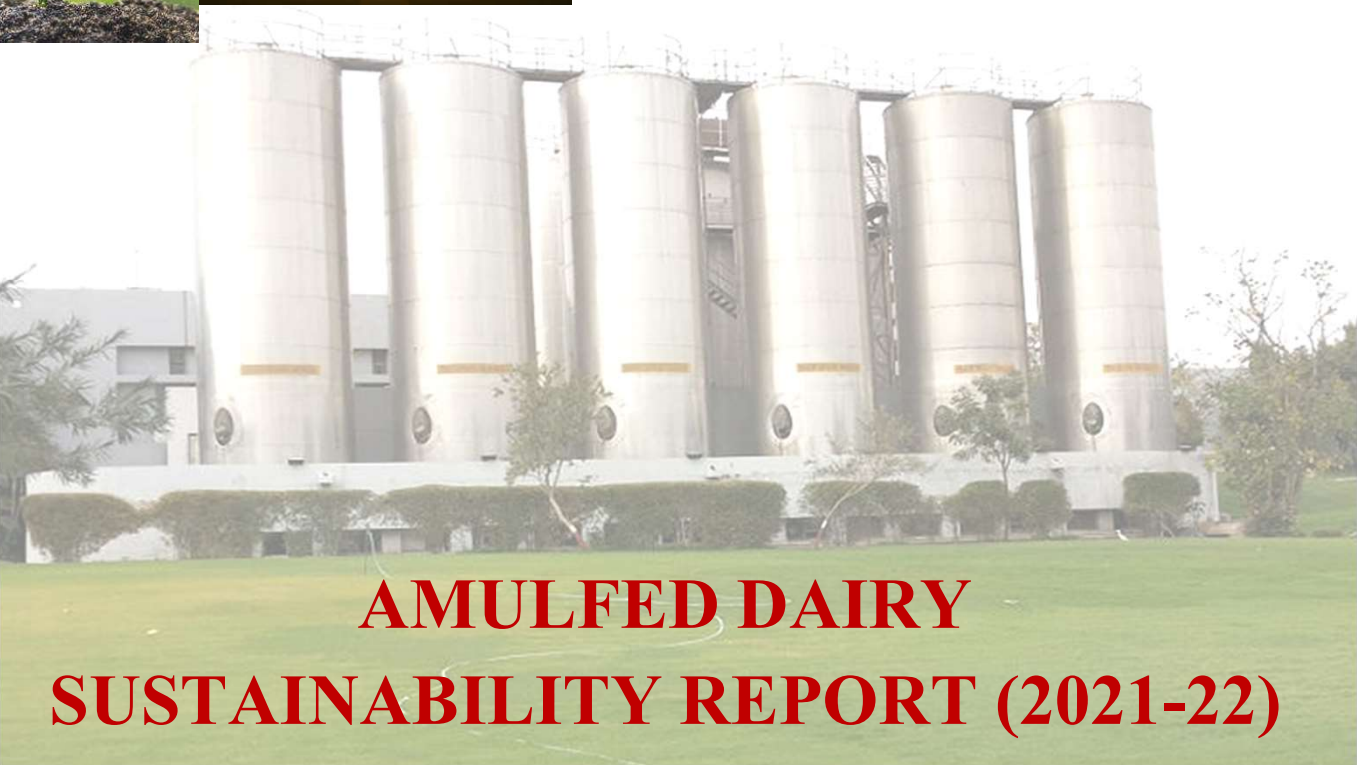
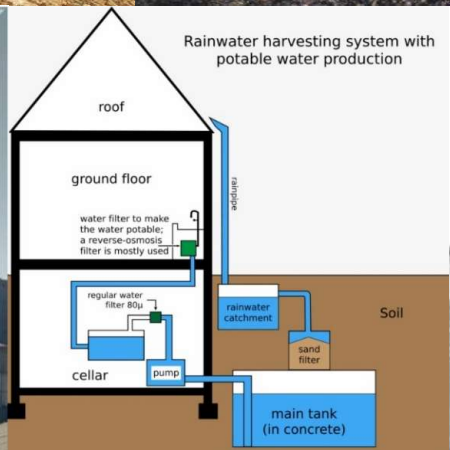




AMULFED DAIRY

(A UNIT OF GCMMF LTD)





THREE PILLARS OF SUSTAINABILITY



- 
- General Manager's Message
 - Vision 2030
 - Glimpses of AmulFed Dairy
 - Materiality Matrix
 - Responsible Sourcing
 - Responsible Operations
 - Business Competitiveness
 - Customer Support
 - Social Engagement
 - Achievements



GENERAL MANAGER's MESSAGE...



In 1987, the United Nations Brundtland Commission defined sustainability as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.”

Hindu Mythology depicts five basic elements of nature namely **PRUTHVI** (Land), **AGNI** (Energy & Light), **JAL** (Water), **VAYU** (Air) and **AAKASH** (Atmosphere). Sustainability begins with preservation of these basic elements. Further, elements like food security and ecological balance are also considered in sustainability.

Sustainability has been crossing boundaries in all areas of society. Governments and organizations around the world are taking major steps in creating a society that functions and prospers with sustainability. Sustainability is all about long term preservation of energy and resources rather than consuming them incessantly for satiating short-term needs. It is not an additional expenditure, rather it is a critical investment area where organizations can realize genuine returns and opportunities for competitive advantage.

AmulFed Dairy is committed to the very purpose for which it was established – to handle surplus milk from member union dairies of GCMMF Ltd. We are accomplishing this vital responsibility, by adopting most efficient and environmental friendly technology, strengthening its value chain and be most trustworthy choice of its consumers, adhering to all local and international regulations relevant to the business, create conducive and inclusive work environment to promote innovation and employee engagement; thereby uphold the trust and confidence of our stakeholders.

“Through our conscious and organized efforts as responsible organization, AmulFed Dairy is making positive impact on value chain by organizing responsible sourcing, responsible operations, responsible social engagement, responsible customer support and being competitive and contemporary in its business practices.

The sustainable efforts are guided by our understanding and prioritizing on various organizational aspects which are significant to our stake holders and to the organization in a structured manner through **Materiality Matrix**. We identified various aspects which are critical as well as of immediate concern on the basis of risk identification and assessment matrix. The mitigation plans to address such issues are being communicated, implemented and reviewed at periodic interval.

We assure that the milk and milk products manufactured at AmulFed Dairy are following most stringent food safety managements system standards and are contributing to safe, healthy and nutritional diet to the consumers. Some of the products like sugar free, low sugar, low fat, lactose free, high protein etc. to cater to the heal and nutrition needs of specific segment of consumers.



GENERAL MANAGER's MESSAGE...



We are continuously working to achieve lowest possible water foot print by minimizing raw water drawl from land and using concepts of “Reduce, Re use and Re cycle water” through several improvement measures like water conservation, waste water recycling, reuse of milk condensate, re use of homogenizer seal cooling and separator cooling etc. We have also adopted re cycling of treated effluent of our Effluent treatment plant for internal usage.

We are deploying Foot printing exercise for measuring GHG emissions, water consumption, waste generation, chemical consumption across all the operational functions. Several energy conservation initiatives are encouraged in areas of heat regeneration activities, boiler waste heat regeneration etc. which has huge impact on GHG emissions and energy conservation.

We are prioritizing on renewable energy usage and have installed 1 MW solar roof top PV system and renewable power contributes 2% of total power consumption. Similarly, in thermal energy front, we are using biogas generated from our effluent treatment plant in boiler. Biogas contributes approximately 5% of our total thermal energy consumption.

We have adopted rain water harvesting and installed more than 11 wells in the premises to channelize more than 1,20,000 kl water during monsoon, which contributes 19% of our annual water drawl. We are also planning for carbon neutral premises by calculating carbon emissions resulting from our operations and procuring green energy as well as planting requisite number of trees to offset residual carbon emission.

We are committed to social inclusion by generating job opportunities for skilled and unskilled manpower. We are considering human resource as essential asset in our growth story and hence we employ talented incumbents without any difference in sex, caste, creed, religion. We profess equal opportunity to females and are creating safe and conducive work environment for female workers.

AmulFed Dairy is following Total Quality Management philosophy and channelize our efforts towards sustainable development through employee engagement, waste elimination and quality consciousness.

We are adopting Life cycle Assessment approach for different products to understand its environmental impact across the value chain. Accordingly several measures are taken for collection and recycling of post consumption flexible plastic waste from Ahmedabad market, thus also complying the regulatory requirement of Extended Producer's Responsibility (EPR).

We have identified sustainability goals in our strategic thrust area and are continuously upgrading our performance to accomplish the same. We are hopeful that AmulFed Dairy shall be able to establish leadership in pursuing its journey towards Cleaner, Greener and Safe Organisation in future.



35 % Reduction In Specific Carbon Emission



50 % Reduction In Ground Water Drawl



20 % Reduction In Chemical Consumption



Carbon sequestering through Forestry initiatives



Social Responsibility



THE AMUL MODEL

Establishment of a direct linkage between milk producers and consumers by eliminating middlemen

Milk Producers (farmers) control procurement, processing and marketing

Professional management

The Consumer

State Cooperative Milk Marketing Federation

District Milk Cooperative Union

Village Dairy Cooperative

Milk Producer



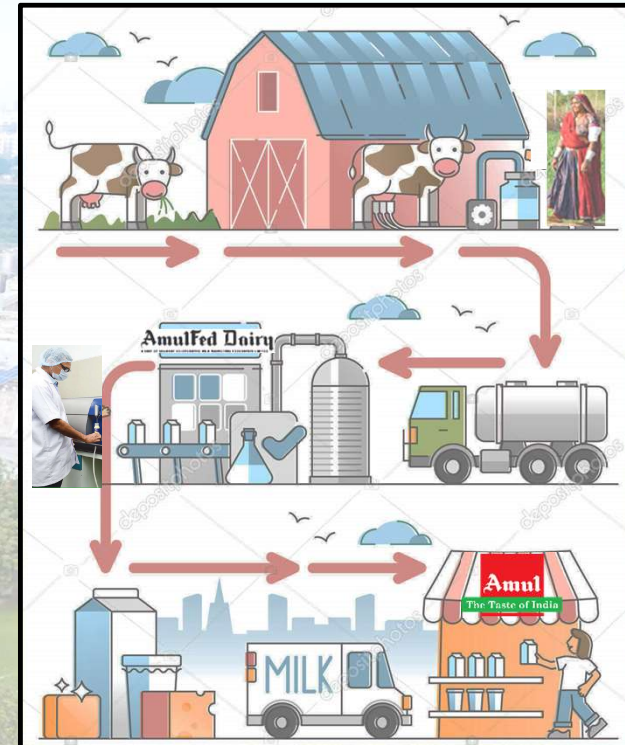
AMULFED DAIRY...



Milk is collected through automated milk collection system



AmulFed Dairy Gandhinagar (AFD) was commissioned in September 1994 by L&T with milk handling capacity of 10 Lakh litre per day. Currently it is handling more than 50 Lakh litre milk per day. It is the largest dairy plant in Asia receiving such quantity of milk and converting into products at single location.



Hygiene & quality of milk maintained through storage in Bulk Milk Coolers (BMC)

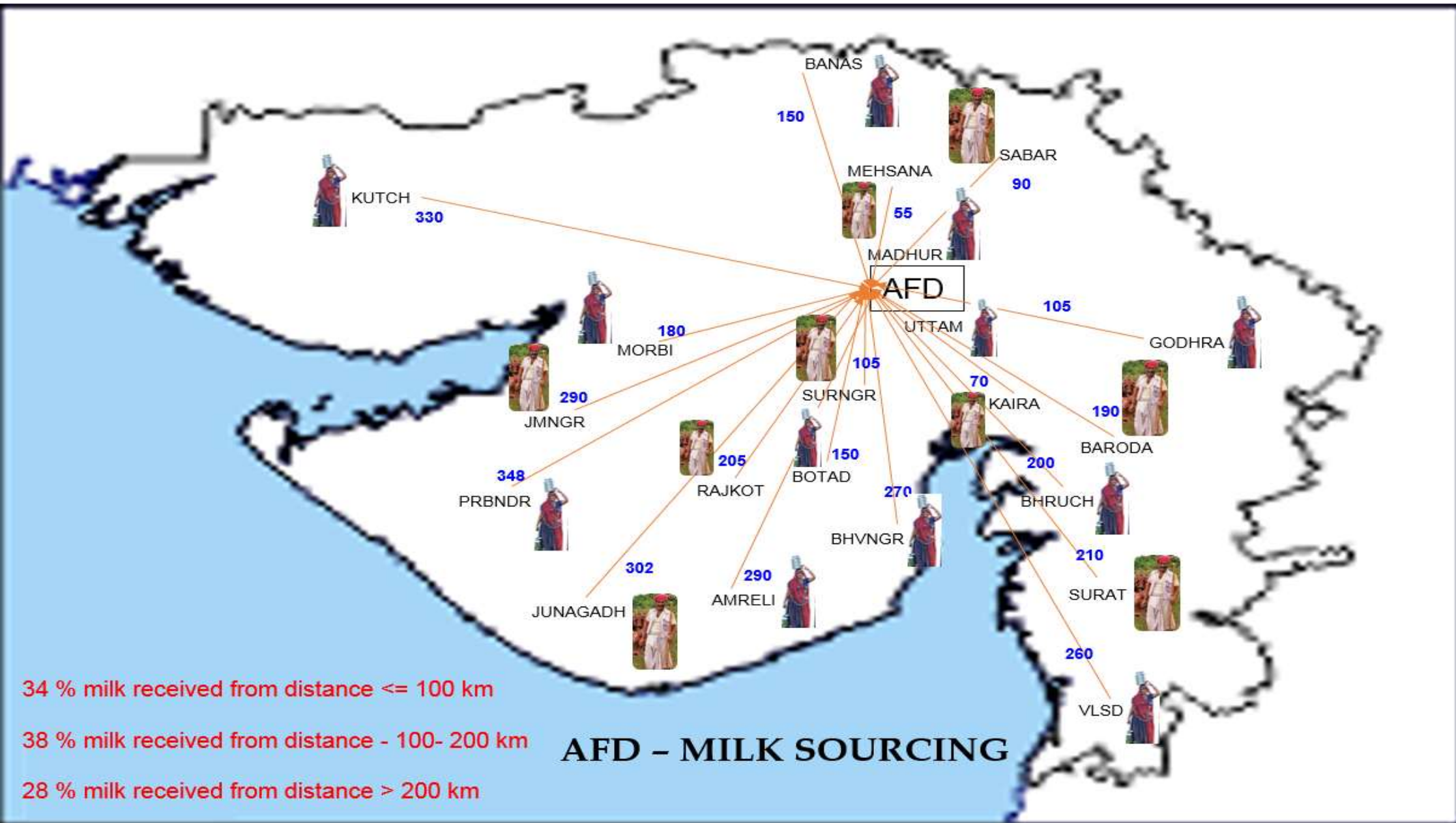


Milk transportation through Insulated Milk Tankers



AmulFed Dairy is established with basic objectives -

- To receive "Surplus Milk" from the Member Unions District Co-operative Dairies of Gujarat state and convert it into milk products after meeting the city liquid milk demand.
- To supply milk round the year to meet liquid milk market demand of Ahmedabad and adjoining areas.



34 % milk received from distance ≤ 100 km

38 % milk received from distance - 100- 200 km

28 % milk received from distance > 200 km

AFD - MILK SOURCING

*Milk Pouch
Packing
Plant*



Ghee Plant



Powder Plant

*Fermented
Products
Plant*



*Butter
Plant*



*Ice cream
Plant*



*Aseptic
packing & PET
bottling plant*



AmulFed Dairy



HIGHLIGHTS OF YEAR 2021-22

12% Increase in Milk receipt



23% increase in Butter production



14% increase in milk and buttermilk packing



300% increase in Dahi production



10.91% increase in Milk powder production



Electricity saving of **21,00,000** kWh/annum



14.81% increase in UHT products manufacturing



Fuel saving **1,00,000** SCM/annum



25% increase in Ice cream production



CO2 emission reduction by **1800** MT/annum



AmulFed Dairy, Gandhinagar

Integrated Management System Policy



AmulFed Dairy will nurture a brand truly worthy of gaining customer's trust. In striving so, AmulFed Dairy is committed to receive milk supply from member unions, manufacturing of Quality & Safe Dairy & Food Products and reliable delivery to customers. This will be achieved by apposite integration of food chain, use of frontline technology, efficient utilization of resources, maintaining safe and conducive work environment and preserving environment as our core values. In support of these values and in context of the organization, AmulFed Dairy shall :

Quality

Food safety

Environment

❖Commit to anticipate the needs and expectations of the interested parties and design, manufacture & delivering them with safe and quality products consistently, which may offer value for money.

❖Comply with all applicable laws, regulations, permits, consents, industry standard and other requirements, that relate to quality, food safety, environment safety and human safety.

❖Commit to pollution, prevention, waste / emission reduction, property conservation, Environment protection and adoption of renewable energy techniques.

❖Commit to review the suitability, adequacy, effectiveness and continual improvement of the integrated management system.

❖Commit to communicate, implement and maintain this at all levels of organization and to review its suitability at a definite interval of time.

This statement is prominently displayed for visitors and will be made available to the public, stakeholders and interested parties.

(General Manager)

AFD-IMS-02-01-TEM-01 Rev : 03 December 06, 2018



OH & S MANAGEMENT SYSTEM
OHSMS / 05 / 01
Rev: 00 Issue: 10/07/2019



OCCUPATIONAL HEALTH & SAFETY (OH&S) POLICY

We, the members of Amul Family, affirmatively attaching the topmost priority, are committed and dedicated to improve continually Occupational Health and Safety performance (prevention of injuries & ill health and to provide a safe & healthy workplace) of the organization by:

- ✓ Appropriate cost effective safe technology adoption, sound and safe manufacturing practices, exemplary housekeeping practices with complete focus on occupational health and safety.
- ✓ Identification, assessment, elimination or control of OH&S risks associated with our processes and activities.
- ✓ Minimization of pollutants having adverse OH&S impact and occupational health and safety risks to human beings & property to ensure safe and pleasant work environment within the factory premises.
- ✓ Compliance with all applicable Acts, Rules, legal regulations and statutes concerning Occupational health and safety and with other requirements to which the organization subscribes.
- ✓ Communication & inculcation of the principles of safety in processes on a continuous basis to all employees & interested parties with the intent that employees & interested parties are made aware of their individual OH&S obligations.
- ✓ Recognition and appreciation of contributions made by individuals in their work environment towards OH&S integrated with the performance appraisal process for career advancement of employees and vendor evaluation process.
- ✓ Making this policy as framework for developing our all organizational objectives.
- ✓ Focusing on providing information on safely performing activities in all the procedures and work instructions.

(Signature)
(R S Sodhi)

Managing Director

Address: Plot No. 35, Nr. Indira Bridge, Ahmedabad-Gandhinagar Highway, Village: Bhat, Dist.: Gandhinagar, Pin 382 428.
Tel. No.: (+91 79) 23968055 - SE. Fax No.: 23969069, Website: www.amul.com



FSSC 22000 V. 5.1



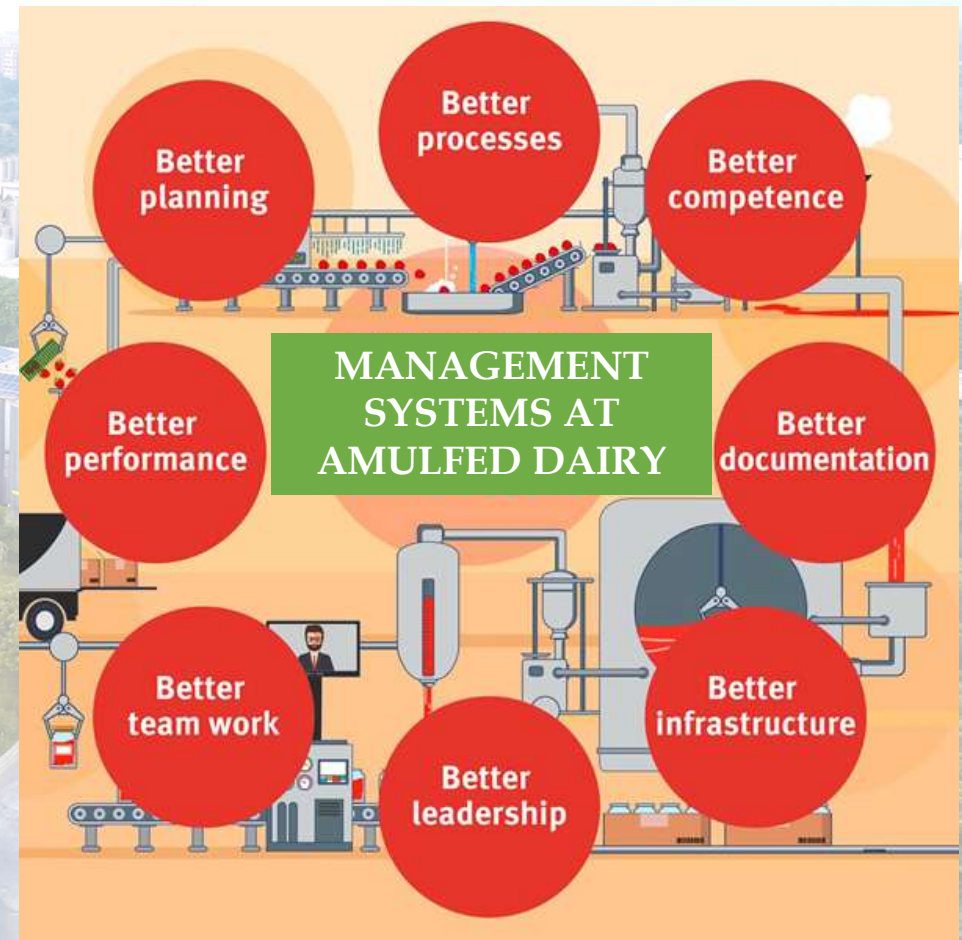
ISO 9001: 2015



ISO 14001:2015



ISO 45001: 2018





MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 170079-2015-FSMS-IND-RNA Initial certification date: 02 December 2015 Valid: 16 April 2021 – 16 April 2024

This is to certify that the management system of

Amul Fed Dairy

(A Unit of GCMMF Ltd.) Plot No. 35, Near Indira Bridge, Village: Bhat, Gandhinagar - 382428, Gujarat, India

has been assessed and determined to comply with the requirements of
FOOD SAFETY SYSTEM CERTIFICATION 22000

Certification scheme for food safety management systems consisting of the following elements:
ISO 22000:2018, ISO/TS 22002-1:2009 and additional FSSC 22000 requirements (Version 5).

This certificate is applicable for the scope of:

Manufacture of milk and milk products, which includes poly packed liquid milk & cultured milk products, dried milk & milk products, ice creams & frozen desserts, milk based sweets, long life milk & milk products, frozen pizza, table butter, infant milk substitute and ghee (butter oil), Category CI, CIII, CIV.

The certification system consists of a minimum annual audit of the food safety management system and a minimum annual verification of the PRP elements and additional requirements as included in the scheme and applicable technical specification for sector PRPs. Validity of this certificate can be verified in the FSSC 22000 database of certified organizations available on www.fssc22000.com.

Date of Certification Decision:
13 April 2021
Place and date:
Barendrecht, 14 April 2021



For the issuing office:
DNV - Business Assurance
Zwijersweg 1, 2994 LB Barendrecht,
Netherlands

Sabrina Bianchini
Sabrina Bianchini
Management Representative



Lack of fulfillment of conditions as set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV GL Business Assurance B.V., Zwijersweg 1, 2994 LB Barendrecht, Netherlands - TEL: +31 (0)102020000 www.dnvgl.com/assurance



MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 170079-2015-ISO-IND-RNA Initial certification date: 15 April 2009 Valid: 16 April 2021 – 16 April 2024

This is to certify that the management system of

Amul Fed Dairy

(A Unit of GCMMF Ltd.) Plot No. 35, Near Indira Bridge, Village: Bhat, Gandhinagar - 382 428, Gujarat, India

has been found to conform to the Quality Management System standard:
ISO 9001:2015

This certificate is valid for the following scope:

Manufacture of milk and milk products, which includes poly-packed liquid milk & cultured milk products, dried milk and milk products, ice creams & frozen desserts, milk-based sweets, long-life milk and milk products, frozen pizza, table butter and ghee (butter oil)

Place and date:
Chennai, 06 April 2021

For the issuing office:
DNV - Business Assurance
KORAL, No. 75, SBT Road, Madurai,
Tamil Nadu - 625 015, India



Sabrina Bianchini
Sabrina Bianchini
Management Representative



Lack of fulfillment of conditions as set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV GL Business Assurance B.V., Zwijersweg 1, 2994 LB Barendrecht, Netherlands - TEL: +31 (0)102020000 www.dnvgl.com/assurance



MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 175967-2015-AE-IND-BVA Initial certification date: 10 March 2020 Valid: 10 March 2021 – 09 March 2024

This is to certify that the management system of
Amul Fed Dairy
(A Unit of GCMMF Ltd.)
Plot No. 35, Near Indira Bridge, Village: Bhat, Gandhinagar – 382 428, Gujarat, India

has been found to conform to the Environmental Management System standard:
ISO 14001:2015

This certificate is valid for the following scope:
Manufacture of milk and milk products, which includes poly-packed liquid milk & cultured milk products, dried milk and milk products, ice creams & frozen desserts, milk-based sweets, long-life milk and milk products, frozen pizza, table butter and ghee (butter oil)

Place and date:
Chennai, 06 April 2021

For the issuing office:
DNV - Business Assurance
ROOM, No. 10, 5th Road, Alambur,
Chennai - 600 016, India




Swaminathan Reddy
MANAGEMENT ASSURANCE

Look at bottom of conditions as set out in the Certification Agreement and under the Certificate itself.
ADDRESSING UNIT: DNV-UK, Business Assurance B.V., Zwijndrecht 1, 3044 CA, Rotterdam, Netherlands - TEL: +31(0)102020500 - www.dnv.com/certification



Bureau Veritas Certification

AMULFED DAIRY (A UNIT OF GCMMF LTD.)

Bureau Veritas Certification Holding SAS – UK Branch certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the Management System Standard detailed below

Standard

ISO 45001:2018

The following site is part of the Management System of the above organisation:

AMULFED DAIRY (A UNIT OF GCMMF LTD.)

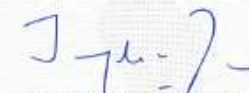
HEAD OFFICE : NEAR INDIRA BRIDGE, AHMEDABAD - GANDHINAGAR HIGHWAY, BHAT, GANDHINAGAR – 382 428, GUJARAT, INDIA.

Scope of certification

PROCESSING OF MILK & MANUFACTURING OF MILK BASED PRODUCTS AND CHEESE COATED PIZZA

Certificate No. IND.21.4245IOH/U 1 of 2 Version: 1 Revision date: 20 October 2021

The validity of this certificate depends on the validity of the main certificate, which expires on: 19 October 2024



Signed on behalf of BVCH SAS UK Branch
Jagdish N. MANIAN
Head – CERTIFICATION, South Asia
Commodities, Industry & Facilities Division



Certification body: 5th Floor, 66 Fleet Street, London, EC1A 3BB, United Kingdom

Local office: Bureau Veritas (India) Private Limited (Certification Business)
72 Business Park, Marol Industrial Area, MIDC Cross Road 'C', Andheri (East), Mumbai – 400 093, India.

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization. To check the certificate validity please call +91 22 6274 2000.



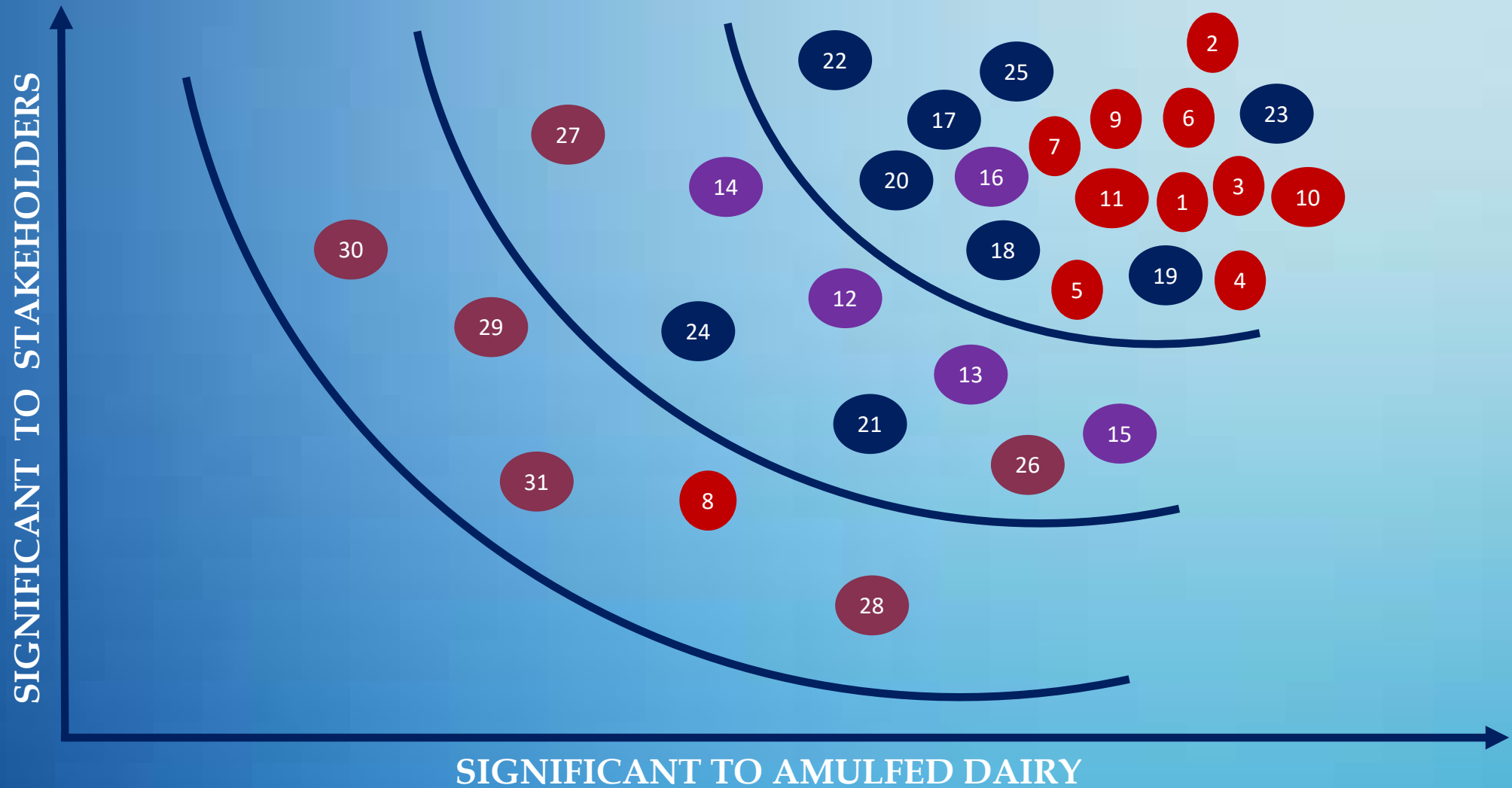
MATERIALITY MATRIX



1	Continuity of business
2	Accepting surplus milk from member unions
3	Uninterrupted Fresh product supply
4	Compliance to legal and regulatory requirements
5	Representation to regulatory and governing bodies
6	Efficient utilization of resources like equipment, manpower
7	Maximizing profit to the stake holders
8	Increasing share of consumer products in product turnover
9	Uninterrupted power supply
10	Enhancing food safety and assurance to customer
11	Mitigation of Food Threat and Food Fraud
12	Adopting of most advanced and energy efficient technology
13	System driven operational approach
14	Lean manufacturing
15	Security of premises and plants
16	Combating pandemic like Covid 19

17	Minimizing GHG emissions
18	Protecting and preserving environment
19	Minimize ground water drawl
20	Use of renewable energy
21	Minimize milk solid losses
22	Maximize plastic waste recycling
23	Optimize incoming effluent and its load
24	Proper handling of solid waste
25	Reducing emissions through transportation vehicles
26	No accidents or injury in premises
27	Generating employment as source of livelihood
28	Employee awareness, training and development
29	Women empowerment and gender equality
30	Encouragement to innovation and development
31	Development of conducive and ethical work culture

MATERIALITY MATRIX



Responsible Material Sourcing

Responsible Operations

Business Competitiveness

Customer Support

Social Engagement

Sustainable Value Chain

Reduction in methane gas emissions

Use of Ethno veterinary medicines

Green cover by tree plantation

Efficient milk tanker utilization

Sourcing from responsible stakeholders

Exploring use of renewable energy

Benchmark in specific Utility consumption

Milk Solid losses

Expanding green belt

Enabling Innovations

Plant Capacity Utilization

Rain Water harvesting

Solid waste management

Turnover (in ₹)

Average Milk receipt

Production Output

Products focused on health and nutrition of customers

Extended producers responsibility

Plastic Waste recycling

Impact on livelihood of 3.6 million farmer producers.

Socio economic equality

Assured returns to farmers.

Trust Reinforcement during Pandemic conditions

Generating employment

Women empowerment

Blood Donation camps

Training & Competence

No Child Labour



Responsible Material Sourcing



Sustainable Value Chain

*Reduction in methane gas
emissions*

*Use of Ethno veterinary
medicines*

Green cover by tree plantation

*Efficient milk tanker
utilization*

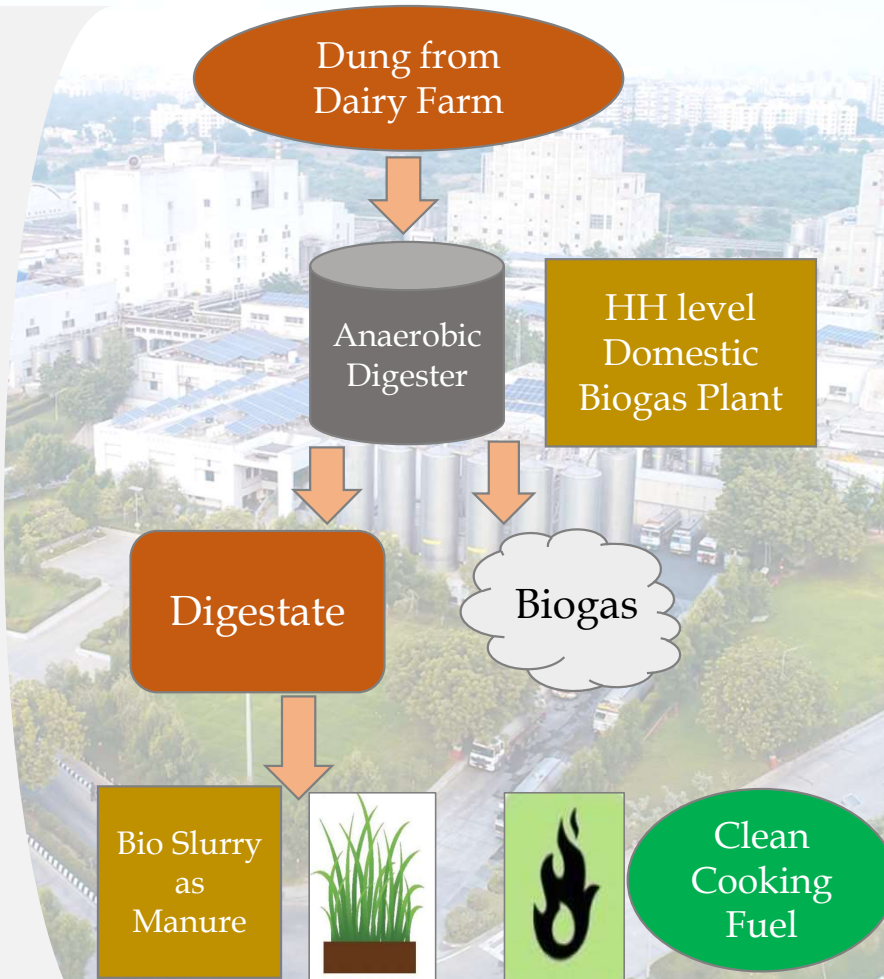
*Sourcing from responsible
stakeholders*



Responsible
material
sourcing

Efficient
Management
of
Recoverable
Dung

- Farmer producers are engaged in Environment friendly usage of Animal Dung.
- More Cost Effective & Environment friendly Fuel compared to other forms of fuel (LPG, Kerosene, Pellet, Natural Gas, Firewood) Savings on cooking fuel costs for users
- Mitigates environmental impact in terms of reduced methane emissions



Responsible
material
sourcing

Flexi dome
Gobar gas
plant
Installation
at farmers
doorstep



Responsible material sourcing

Ethnoveterinary practices

- Our member union dairies are adopting *Ethnoveterinary Practices* for treatment of their cattle.
- EVP recipes have been identified and proven effective against different types of disease conditions like Pyrexia, Mastitis, FMD lesions, Enteritis etc.
- Implementation of EVP programme as an alternative medicine; as a part of their routine veterinary services to farmer's door step.
- EVP helps in reduction in treatment cost of animals, reduction in antibiotics usage and minimize emergence of antimicrobial resistance (AMR) in animals.



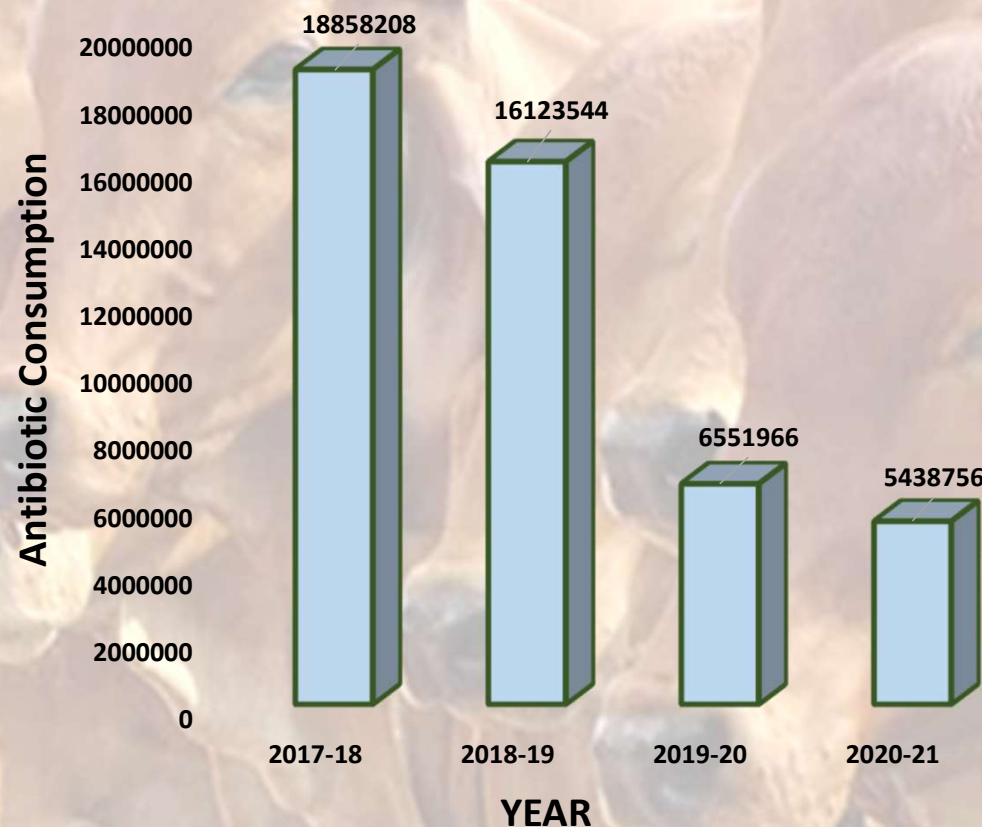
Responsible
material
sourcing

Ethnoveterinary
practices

*Recovered cases using
Ethnoveterinary medicines*

Year	Total cases	Recovered cases	Recovered cases (%)
2019-20	96884	80453	83
2020-21	96953	78730	81
2021-22 (till Dec-21)	57949	45589	79

Antibiotic Consumption





GREEN COVER BY TREE PLANTATION



Every year, on Independence Day, our milk producers conduct a mass tree plantation drive.

Responsible
material
sourcing

Tree
Plantation



In last 14 years, they have planted more than 817.6 lakh trees.

** All values are in lakhs*

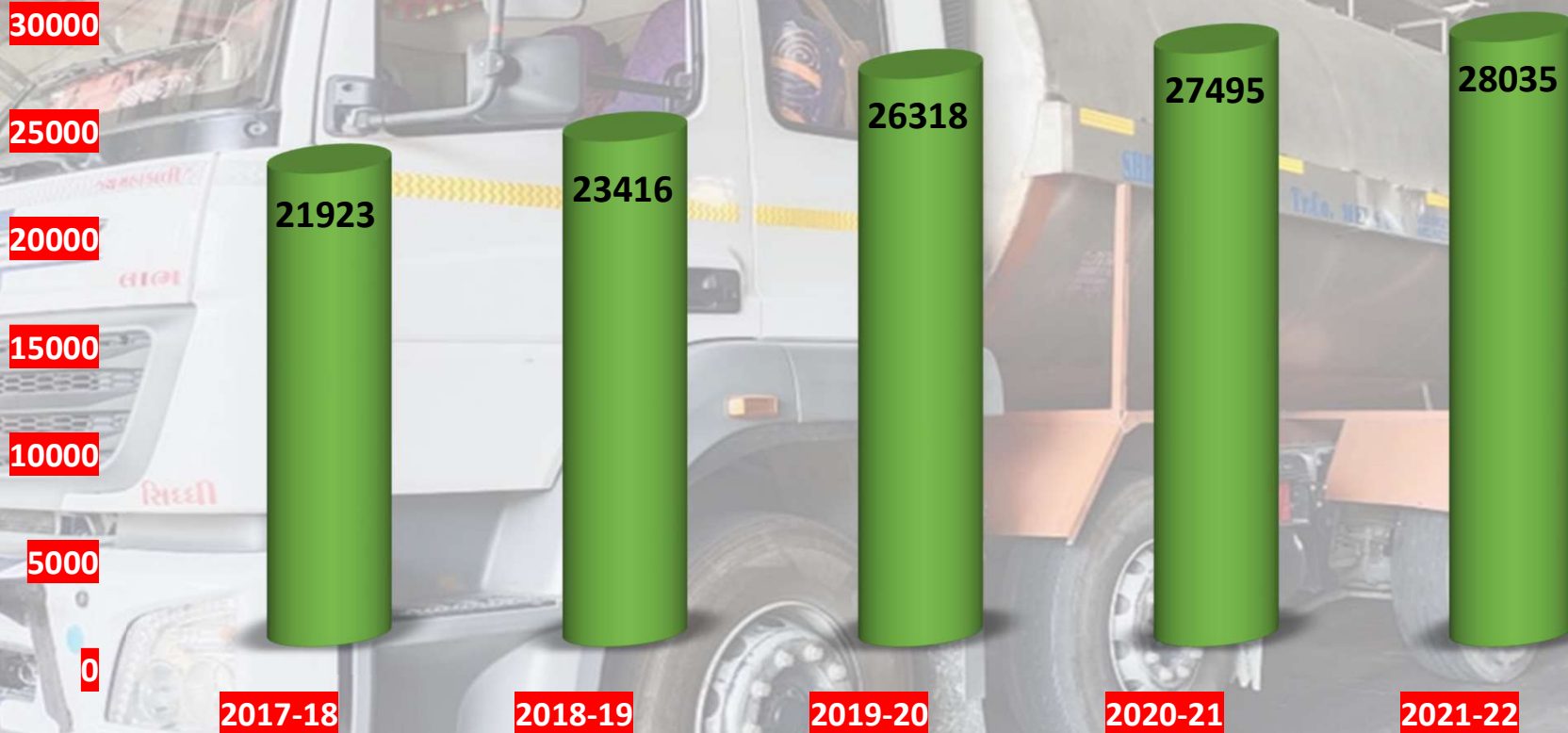


RESPONSIBLE SOURCING - MILK RECEIPT PER TANKER



Responsible
material
sourcing

Milk Receipt
Per Tanker



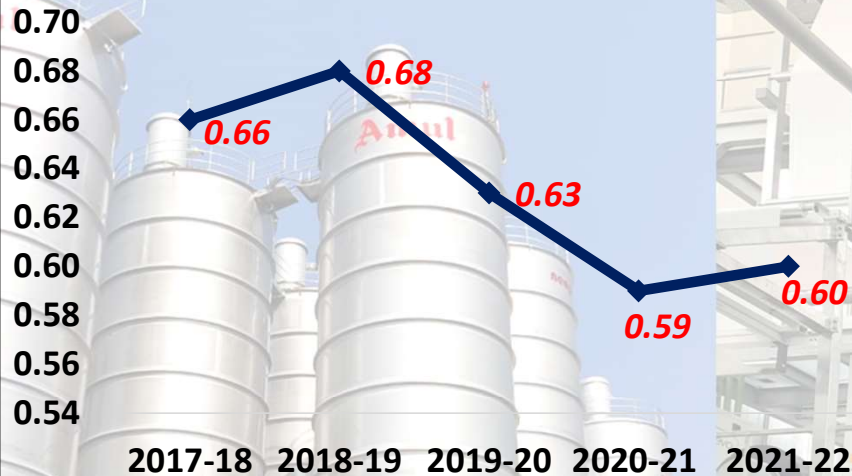
Increase in per tanker capacity, resulting into reducing CO₂ Emissions in atmosphere by reduction in number of tanker trips for same volume of milk transported

RESPONSIBLE SOURCING -PACKAGING FILM PLANT

Responsible
material
sourcing

Packaging
Film Plant

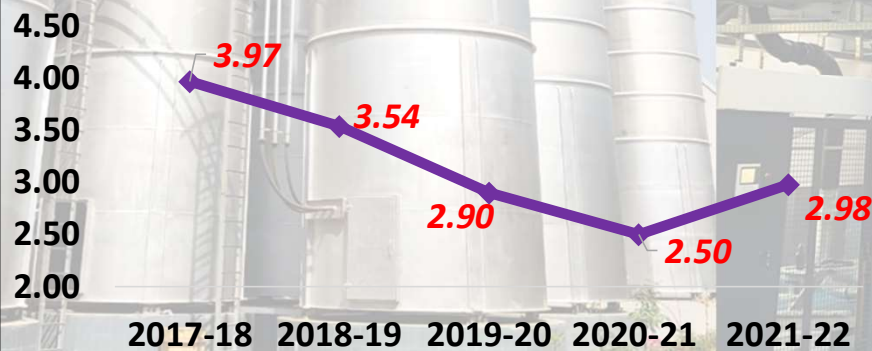
Sp. Electricity Consumption (Kwh/kg)



*Calculation based on Energy base line of
Year 2018-19 (0.68 Kwh/kg)*

Year	Reduction in Energy consumption (Kwh / kg)	Reduction in CO ₂ Emission (MT)
2019-20	0.05	1023
2020-21	0.09	1792
2021-22	0.07	1574

Sp. Natural Gas Consumption (SCM/MT)



*Sourcing of Flexible LDPE
film for pouch packaging of
Milk, Butter milk, Masti Dahi
is done from 'Packaging Film
Plant, Gandhinagar'.*



RESPONSIBLE SOURCING – RECYCLING BEVERAGE CARTONS

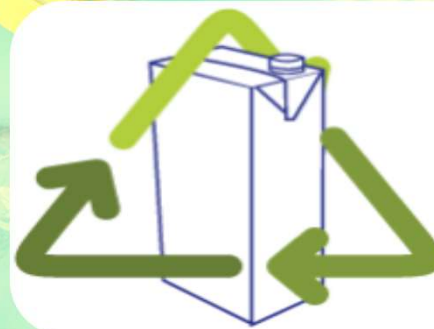


Responsible
material
sourcing

Recycling
Beverage
Cartons



➤ *Sourcing laminated paper used for Aseptic packing from responsible packaging material suppliers like Tetra Pak and SIG.*



AARC
Action Alliance for Recycling
Beverage Cartons

➤ *Tetra Pak and SIG are registered under AARC (Action Alliance for Recycling Beverage Cartons) and recycle all waste laminates collected from market and convert into value added products like Chipboards, Roof plates, pallets.*



Responsible Material Sourcing



Responsible Operations



Sustainable Value Chain

*Reduction in methane gas
emissions*

*Use of Ethno veterinary
medicines*

Green cover by tree plantation

*Efficient milk tanker
utilization*

*Sourcing from responsible
stakeholders*

*Exploring use of renewable
energy*

*Benchmark in specific Utility
consumption*

Milk Solid losses

Expanding green belt

Enabling Innovations

Plant Capacity Utilization

Rain Water harvesting

Solid waste management

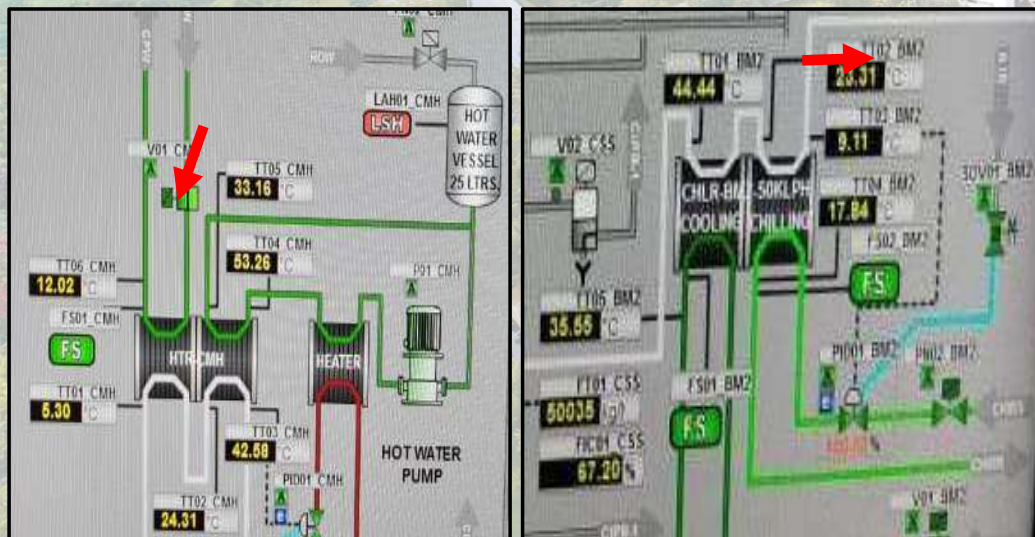
BREAK THROUGH PROJECT

Responsible
Operations

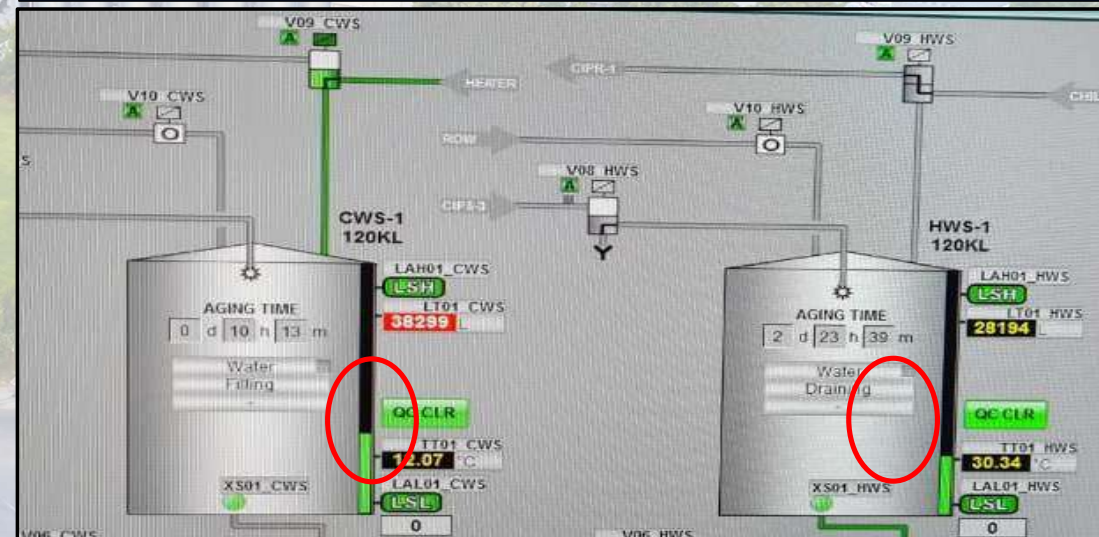
Break
Through
Project

YEAR	CAPACITY OF PLANT	ANNUAL ELECTRICAL SAVING (KWH)	ANNUAL ELECTRICAL COST SAVING (Rs. Million)	ANNUAL THERMAL SAVING SCM	ANNUAL THERMAL COST SAVING (Rs. Million)	TOTAL ANNUAL SAVINGS (Rs. Million)
2020-21	120 KL	352000	2.81	135000	4.18	6.99

HEAT REGENERATION SYSTEM RESULTING INTO ELECTRICAL AND THERMAL SAVING WORTH Rs. 6.99 million.



REAL TIME TEMPERATURE AT COLD & HOT WATER SILO ON ACCOUNT OF HEAT REGENERATION SYSTEM





UTILISATION OF RENEWABLE ENERGY SOURCES



Responsible
Operations

Utilization
Of
Renewable
Energy
Sources

YEAR	TECHNOLOGY	TYPE OF ENERGY	TOTAL INSTALLED CAPACITY (KW _p)	TOTAL GENERATION (Million kwh)	% OVERALL ELECTRICAL ENERGY
	(ELECTRICAL)				
2018-19	SOLAR ROOF TOP	SOLAR	520	0.36	0.55
2019-20			1000	1.15	1.72
2020-21			1000	1.68	2.19
2021-22			1000	1.64	1.92
TOTAL CAPACITY AT AMULFED DAIRY			1000	1.64	1.92
2018-19	BIOMASS POWER	BIOMASS	1200	10.98	16.66
2019-20			3300	20.41	30.45
2020-21			1200	2.84	3.69
2021-22			-	-	-

**Total installed capacity can not be increased beyond 1 MW as per GERC regulation.*

**Biomass power is procured through open access as per availability. After September 2020, it could not be procured due to tariff regulatory limitations.*



SPREAD OF SOLAR ROOF TOP



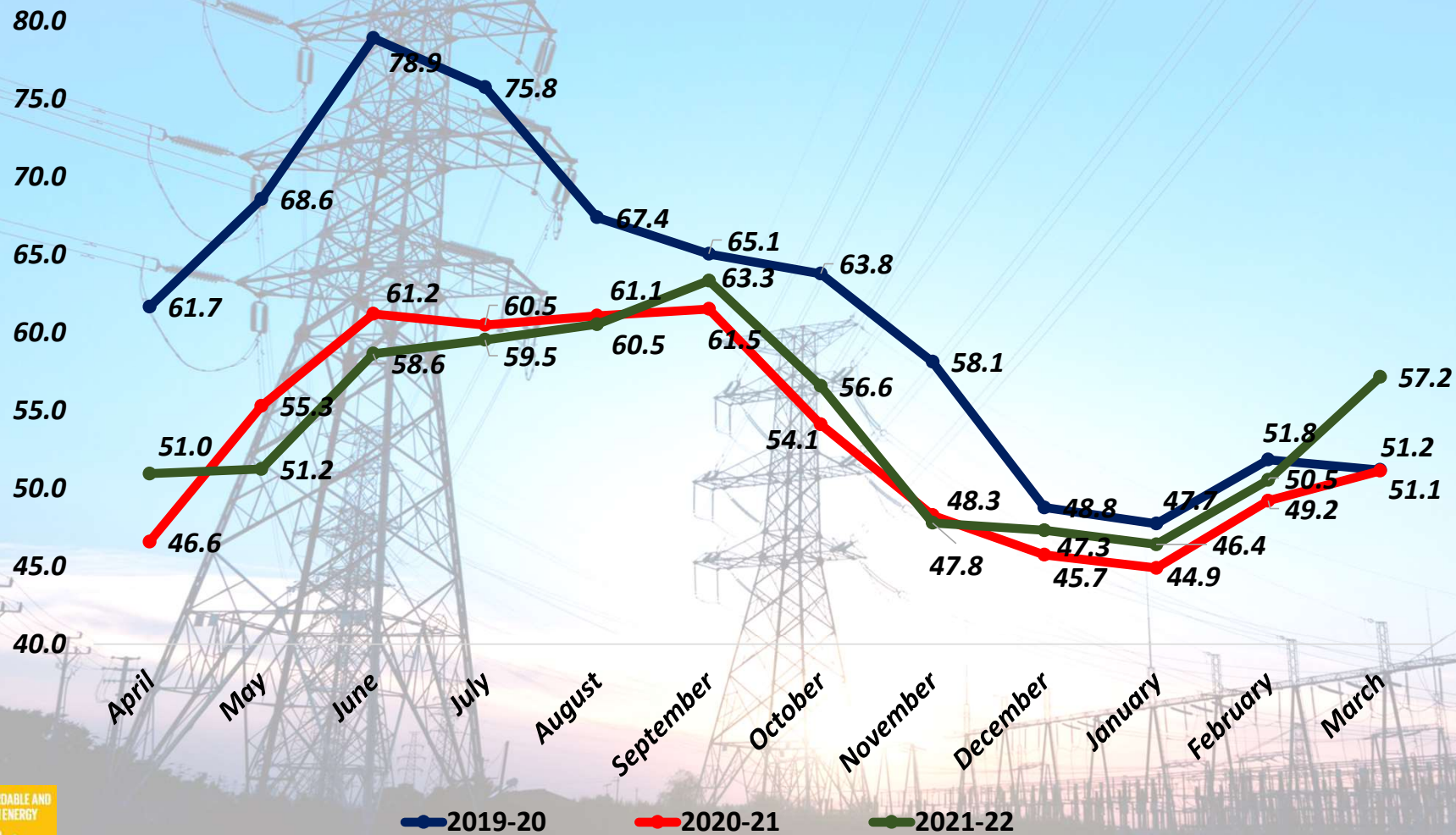


SPECIFIC POWER kWh / KL



Responsible
Operations

Specific
Power
Consumption

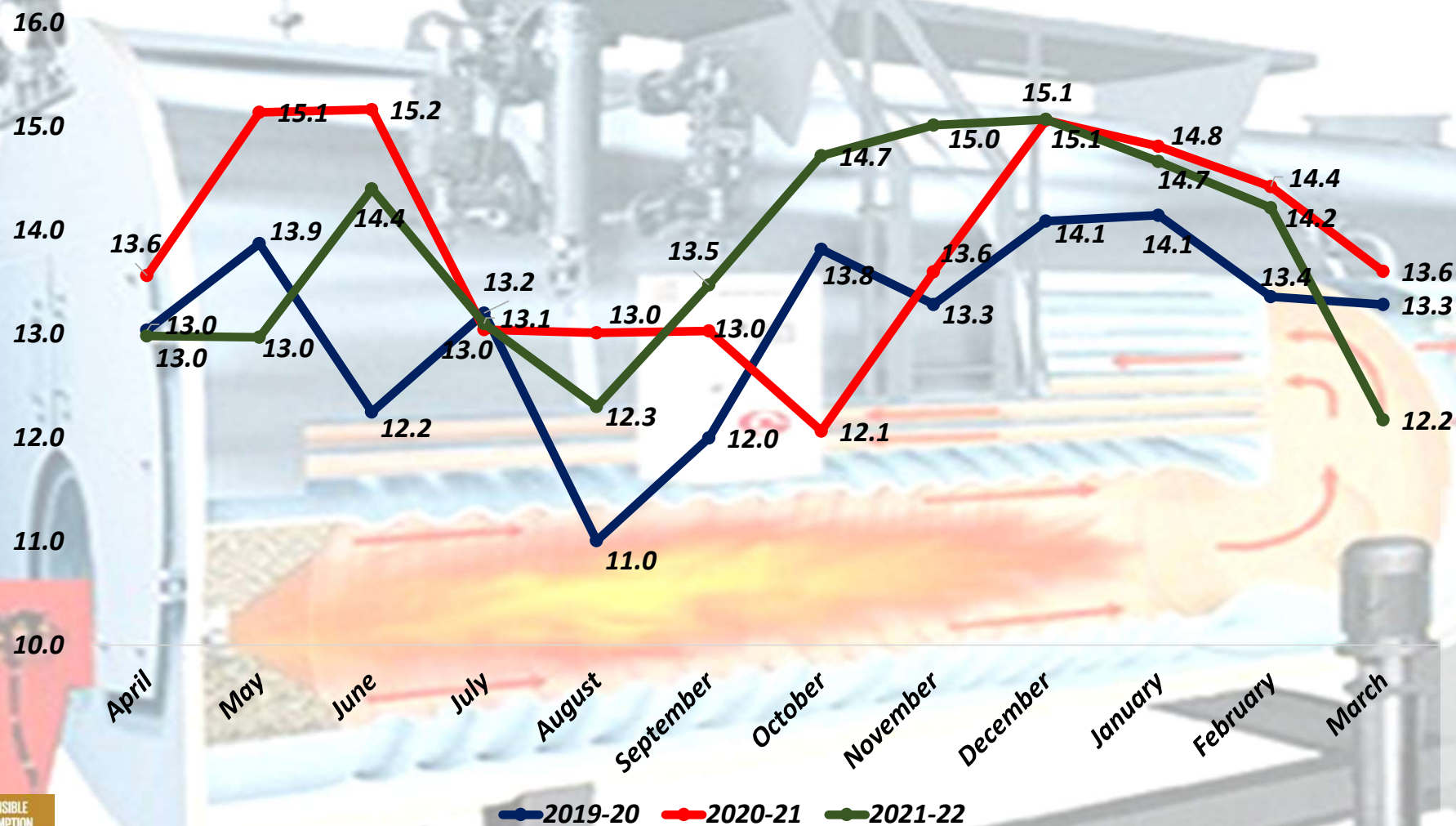


FY 2019-20
59.7 kWh/KL

FY 2020-21
52.3 kWh/KL

FY 2021-22
53.4 kWh/KL

SPECIFIC FUEL SCM / KL



Responsible
Operations

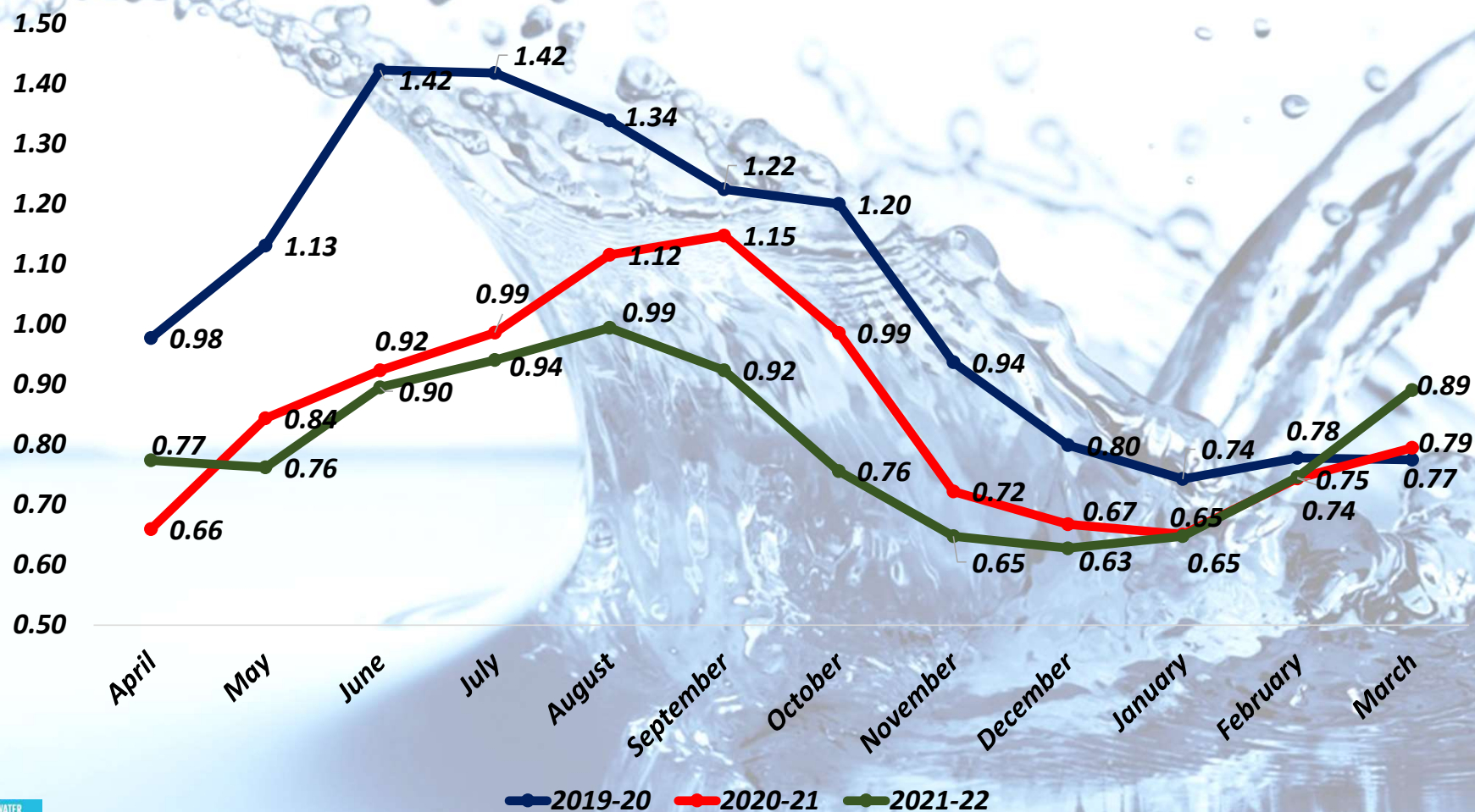
Specific Fuel
Consumption

FY 2019-20
13.2 SCM/KL

FY 2020-21
13.9 SCM/KL

FY 2021-22
13.8 SCM/KL

SPECIFIC WATER KL / KL



Responsible
Operations

Specific
Water
Consumption

FY 2019-20
1.01 KL/KL

FY 2020-21
0.82 KL/KL

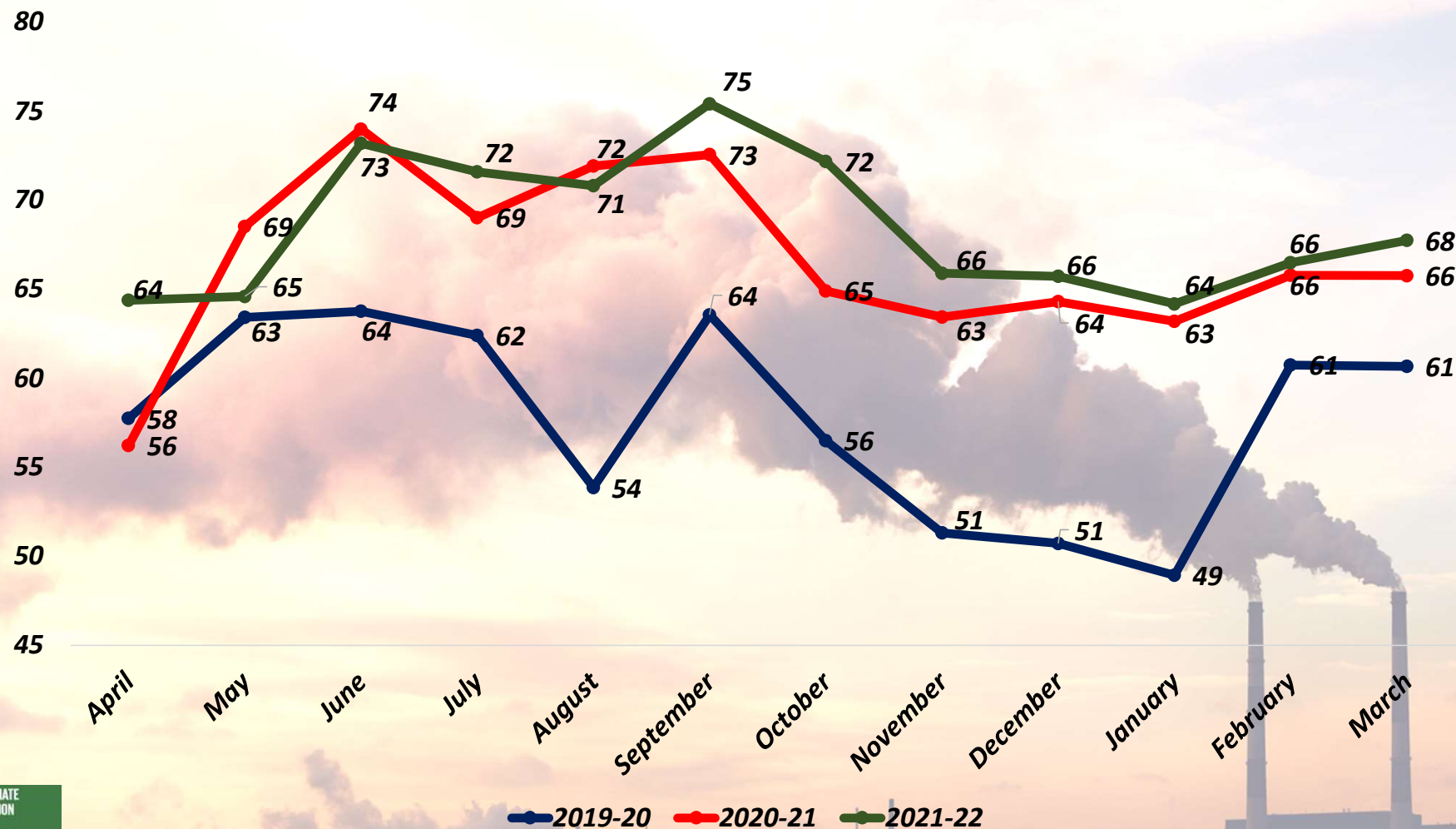
FY 2021-22
0.78 KL/KL

SPECIFIC CO₂ Kg/ KL



Responsible
Operations

Specific
carbon
dioxide
emissions



FY 2019-20
57 Kg/KL

FY 2020-21
66 Kg/KL

FY 2021-22
68 Kg/KL





SPECIFIC UTILITY CONSUMPTION



Responsible
Operations

Specific
Utility
Consumption

1000 lt of Milk processing requires:

At 20 LLPD plant

320 lt water
5850 Kwh power
20 kg steam
0.29 lt chemical

At 30 LLPD plant

206 lt water
3820 Kwh power
21 kg steam

2019-20

At 20 LLPD plant

280 lt water
5580 Kwh power
20 kg steam
0.22 lt chemical

At 30 LLPD plant

130 lt water
3040 Kwh power
15 kg steam

2020-21

At 20 LLPD plant

200 lt water
5740 Kwh power
19 kg steam
0.19 lt chemical

At 30 LLPD plant

115 lt water
3130 Kwh power
14 kg steam

2021-22



SPECIFIC UTILITY CONSUMPTION



Responsible
Operations

Specific
Utility
Consumption

1000 lt of packing & storage of Milk requires:



107 lt water

2.68 Kwh power

2019-20



83 lt water

2.62 Kwh power

2020-21



66 lt water

2.81 Kwh power

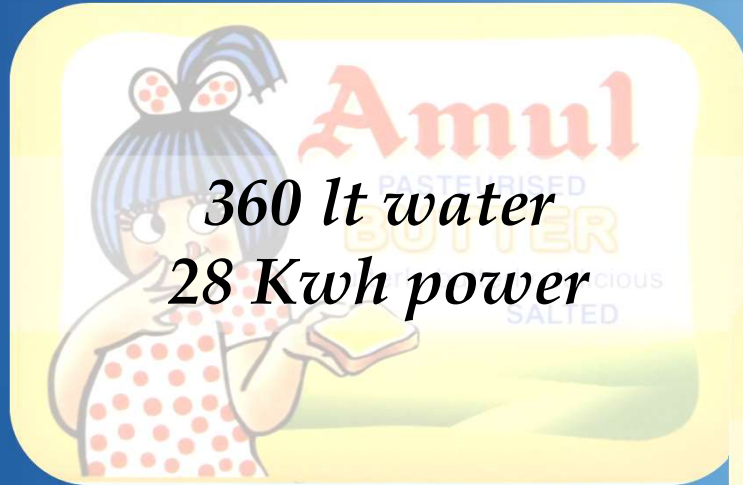
2021-22



SPECIFIC UTILITY CONSUMPTION



1000 kg of Butter
manufacturing requires:



2019



2020



2021

Responsible
Operations

Specific
Utility
Consumption



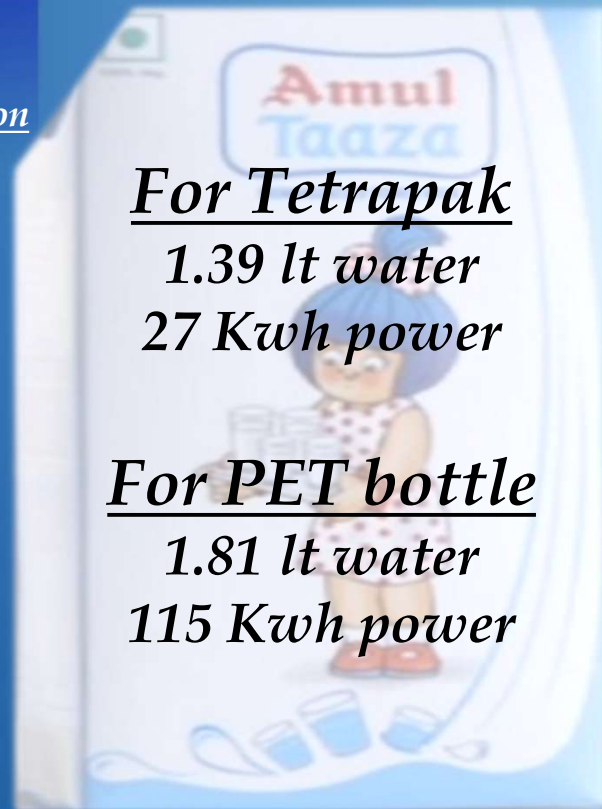
SPECIFIC UTILITY CONSUMPTION



Responsible
Operations

Specific
Utility
Consumption

1000 lt of UHT milk manufacturing requires:



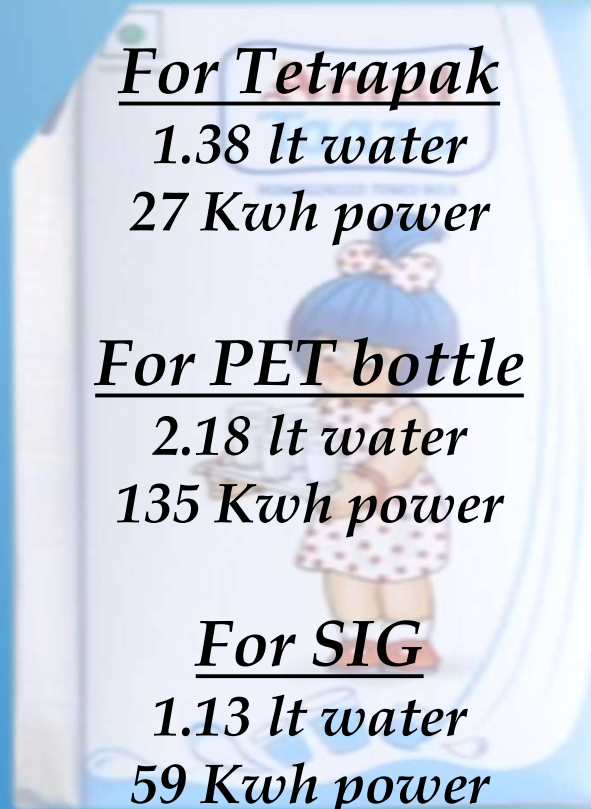
For Tetrapak

1.39 lt water
27 Kwh power

For PET bottle

1.81 lt water
115 Kwh power

2019



For Tetrapak

1.38 lt water
27 Kwh power

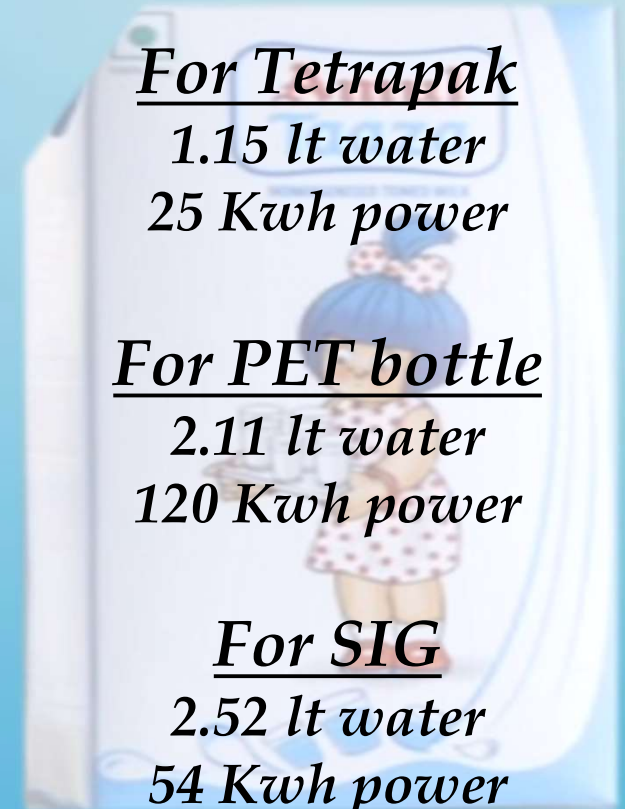
For PET bottle

2.18 lt water
135 Kwh power

For SIG

1.13 lt water
59 Kwh power

2020



For Tetrapak

1.15 lt water
25 Kwh power

For PET bottle

2.11 lt water
120 Kwh power

For SIG

2.52 lt water
54 Kwh power

2021

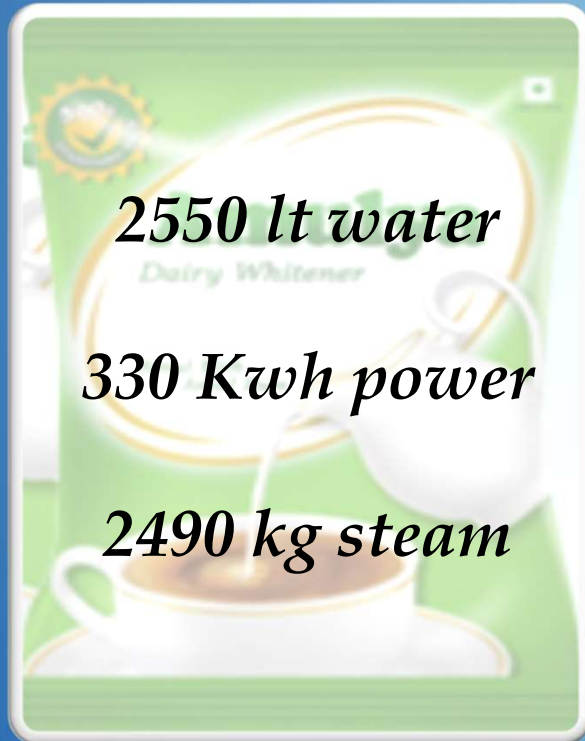


SPECIFIC UTILITY CONSUMPTION



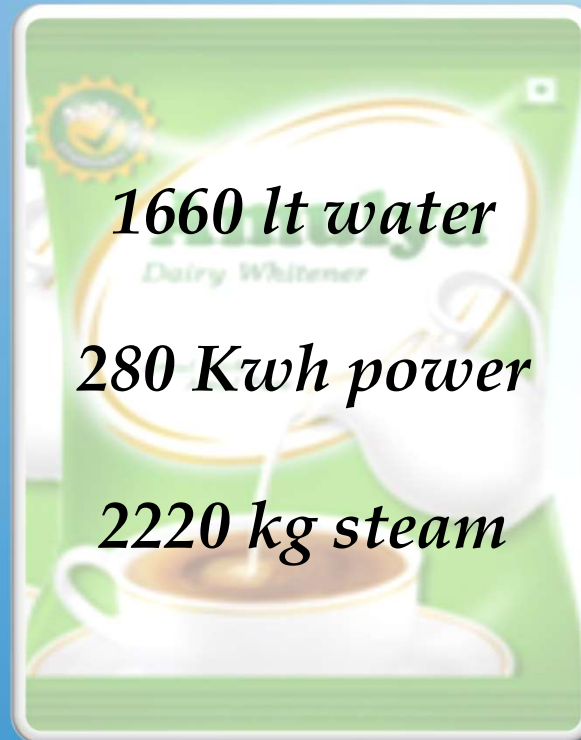
Responsible
Operations

Specific
Utility
Consumption

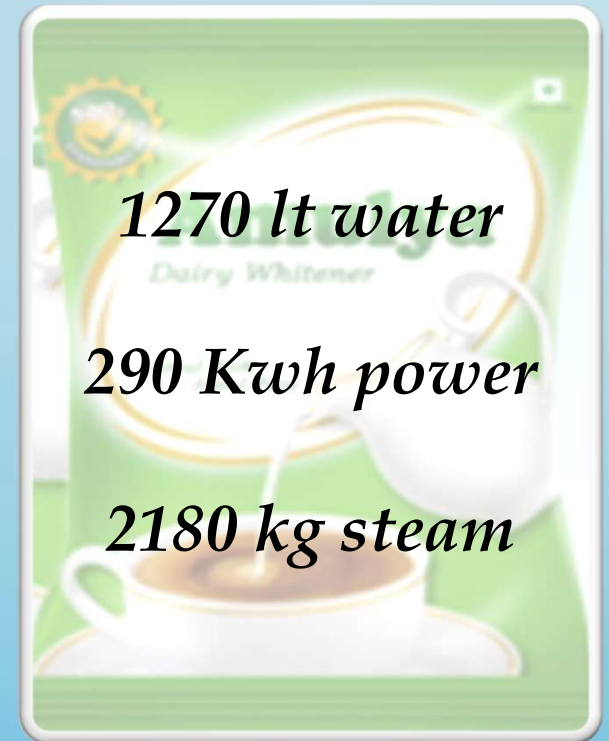


2019

1000 kg of Powder
manufacturing
requires:



2020



2021



SPECIFIC UTILITY CONSUMPTION



Responsible
Operations

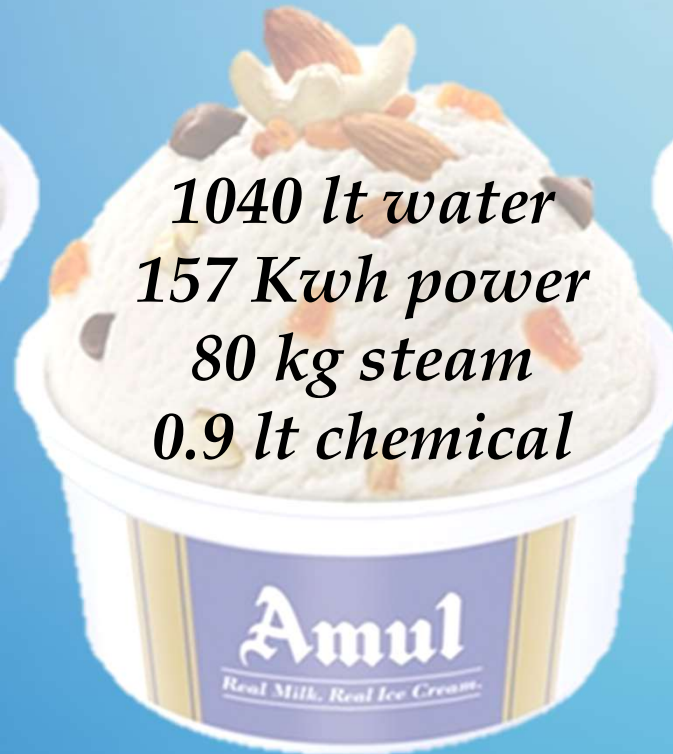
Specific
Utility
Consumption

1000 lt of Ice cream
manufacturing requires:



820 lt water
87 Kwh power
60 kg steam
1.6 lt chemical

2019-20



1040 lt water
157 Kwh power
80 kg steam
0.9 lt chemical

2020-21



990 lt water
95 Kwh power
50 kg steam
1.4 lt chemical

2021-22



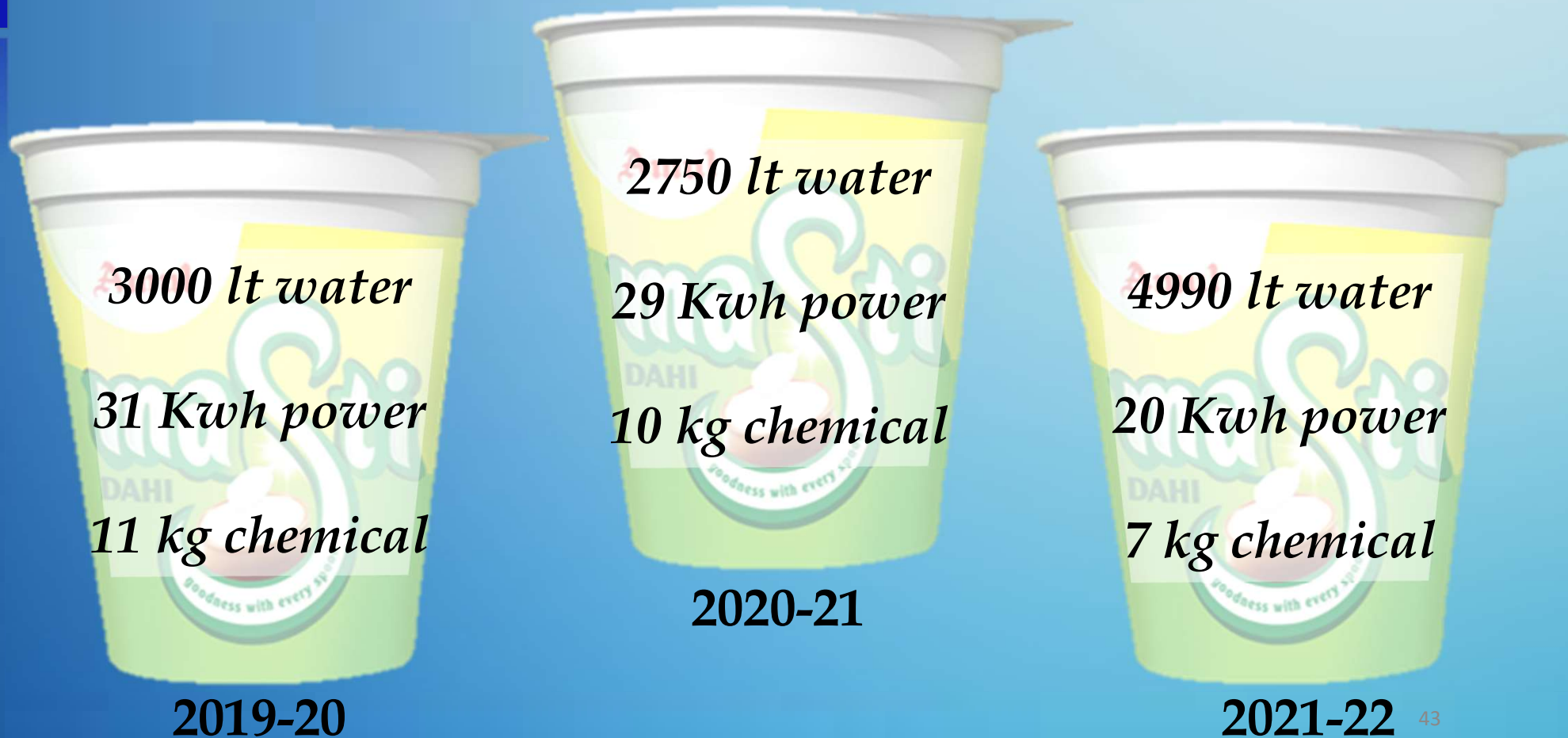
SPECIFIC UTILITY CONSUMPTION



Responsible
Operations

Specific
Utility
Consumption

1000 kg of fermented products manufacturing requires:



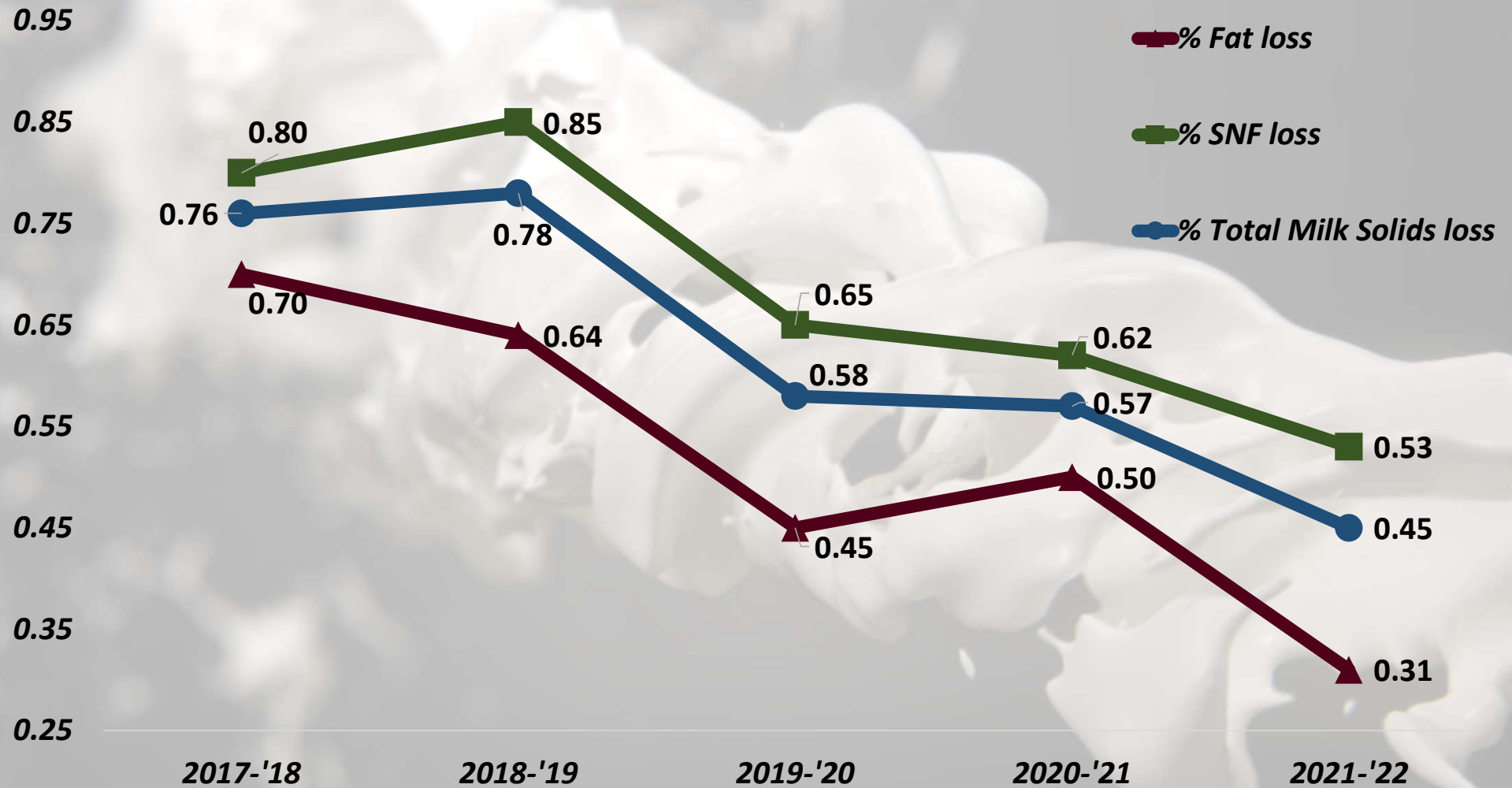


MILK SOLID LOSSES



Responsible
Operations

Milk Solid
Losses



Responsible
Operations

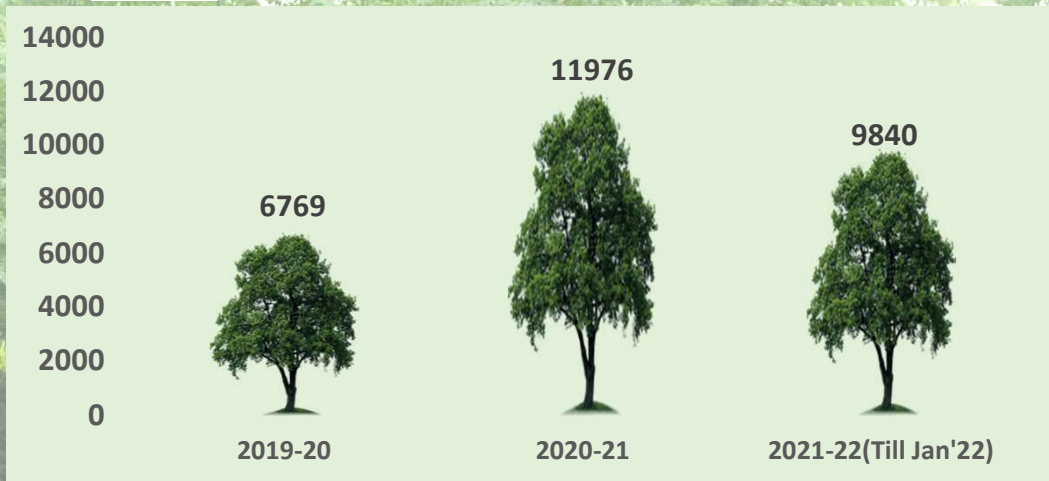
Efforts for
Carbon
Sequestering

Green Achievements





TREE PLANTATION (in Nos.)



AFD PLANTATIONS



AMC- AUDA GARDENS PLANTATIONS



PFP PLANTATIONS



TOTAL PLANTATIONS



BEFORE TREE PLANTATION



DURING TREE PLANTATION



AFTER TREE PLANTATION



243 AMC - AUDA gardens maintained by AmulFed Dairy, covering total area of 17 to 18 Lakh Sq.mt.



GREEN REVOLUTION BY TREE PLANTATION



In the Programming committee meeting held on August 3 2021, AmulFed Dairy was awarded a "Certificate of Appreciation" from MD, GCMMFL for planting more than 1.43 Lakh trees on 15th August 2020.



We wish to continue our contribution for the betterment of the Environment.

Glimpse of Miyawaki Plantation:-

- “The Miyawaki method” of Tree Plantation is for Afforestation activity.
- Ultimate vision is to create the small forest even in your small piece of land by planting indigenous tree species in close spacing for Restoration of Forest.

The probable advantages of such project would be:-

- 10 times faster plant growth & 30 times denser than conventional plantations.
- Act as a Air purifier & wind breaker.
- Vegetation reduces noise pollution through a phenomenon called sound attenuation, which is the reduction of sound intensity.
- Self-sustainable in two years(need due care for first two years only).



In September 2020



In September 2021

Responsible
Operations

Innovations

*Increasing vehicle
capacity from 20 to 25
MT per trip*

Reduction in CO₂ emission

*Reduction in transportation
cost*

*Reduction in vehicular
moments in premises*

*Weight reduced in PET
Perform*

4.5% reduction in PET usage

Reduction in handling cost

Reduction in plastic waste





*Use Of Recycled
Material In Plastic
Liner,
Shrink Film & Stretch
Film*

*Increase in use of recycled
plastic material –
60 MT per month*

*Replacing transportation of
coconut oil from plastic barrels
to bulk container*

*Reduce usage of 2500-3000 HDPE
barrels per year.
Increase in vehicle trip utilization
leading to lesser CO₂ emissions.*

*Replacing receipt of chocolate
from slab form to slurry form*

*Avoiding use of 35000-40000 plastic
liner and Corrugated boxes.
Increase in vehicle trip utilization
leading to lesser CO₂ emissions.
Reduction in specific transportation
cost.*

Responsible
Operations

Innovations

An automated storage and retrieval system consists of a variety of computer-controlled systems for automatically placing and retrieving loads from defined storage locations.

At AmulFed dairy, entire warehouse is managed by 3 dedicated Stacker Cranes in 3 Aisles

The storage capacity of ASRS is 6258 Pallets.

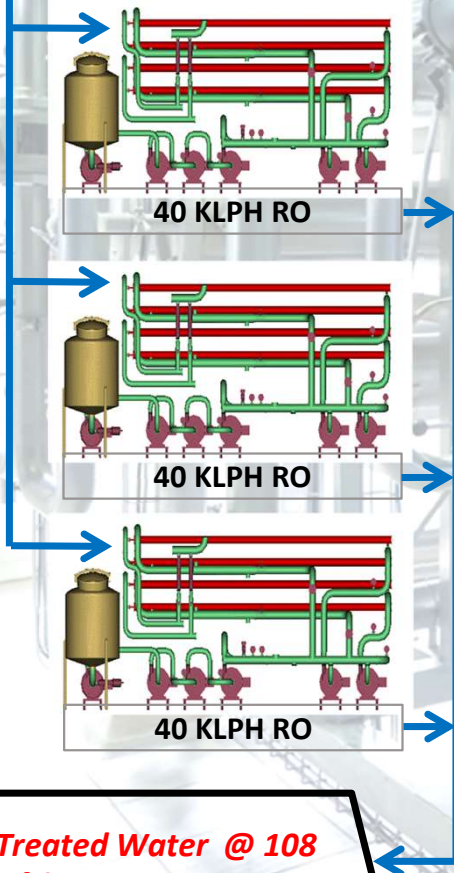


Major Advantages:

- *Real time inventory control*
- *Improve efficiency and storage capacity*
- *Increasing accuracy*
- *Maintaining FIFO*
- *Reducing Labor cost*
- *Reducing product damage & waste.*

**Milk
Condensate
@ 120
M³/hr**

Milk Condensate Polishing System (By Reverse Osmosis Method)



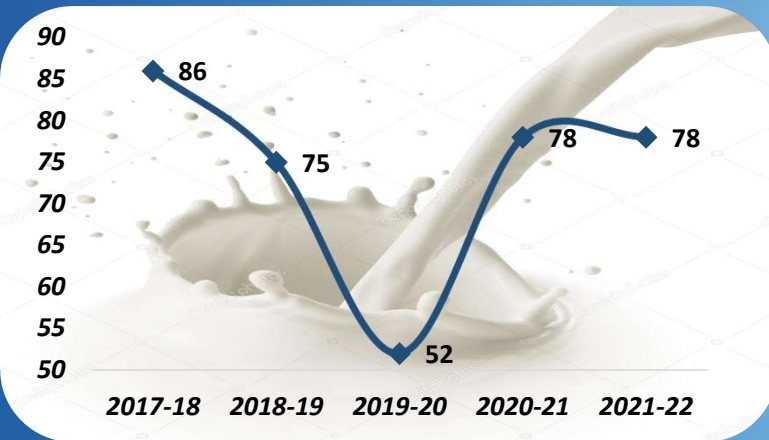
**Treated Water @ 108
M³/hr to storage Tank**

- 90 % Recovery of milk condensate by RO polishing treatment
- Superior quality of RO permeate with Zero TDS and Zero Bacterial count.
- Utilisation of RO treated water for routing CIP operations of all plants.

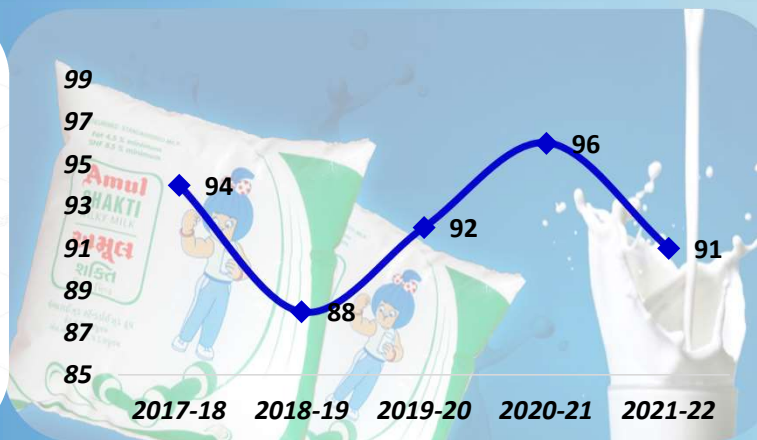




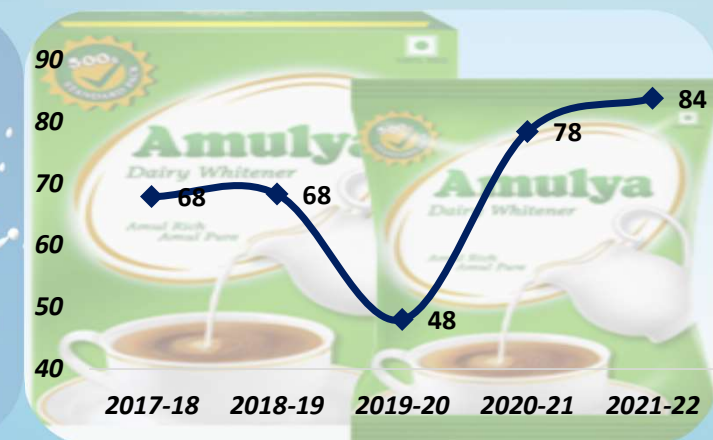
PLANT CAPACITY UTILIZATION



Milk processing



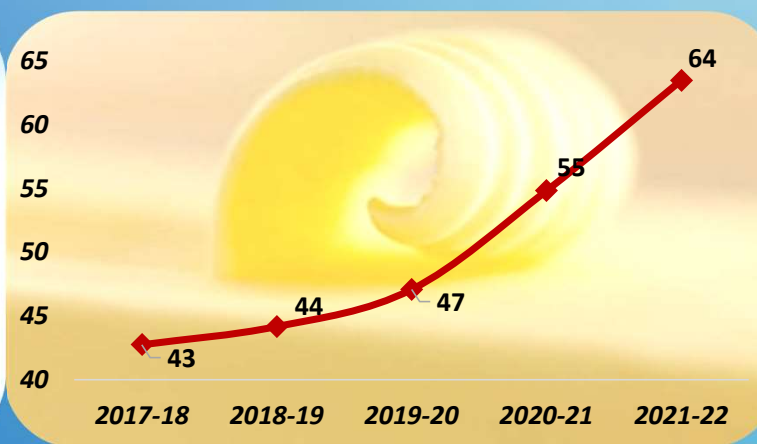
Milk pouch packing



Milk Powder Manufacturing



Aseptic milk packing



Butter Manufacturing



Ice cream Manufacturing



RAIN WATER HARVESTING SYSTEM



Responsible
Operations

Rain Water
Harvesting
Project



<i>Total area of AFD</i>	<i>250000 sq. meter</i>
<i>No of recharge wells</i>	<i>11 nos.</i>
<i>Percolation capacity of each well</i>	<i>15 kl/h</i>
<i>Average annual Rainfall</i>	<i>800 mm</i>
<i>Coefficient</i>	<i>60</i>
<i>Estimated Quantity of water recharge</i>	<i>120000 kl</i>
<i>Annual water consumption</i>	<i>625000 kl</i>
<i>% of water harvesting</i>	<i>19.2 %</i>

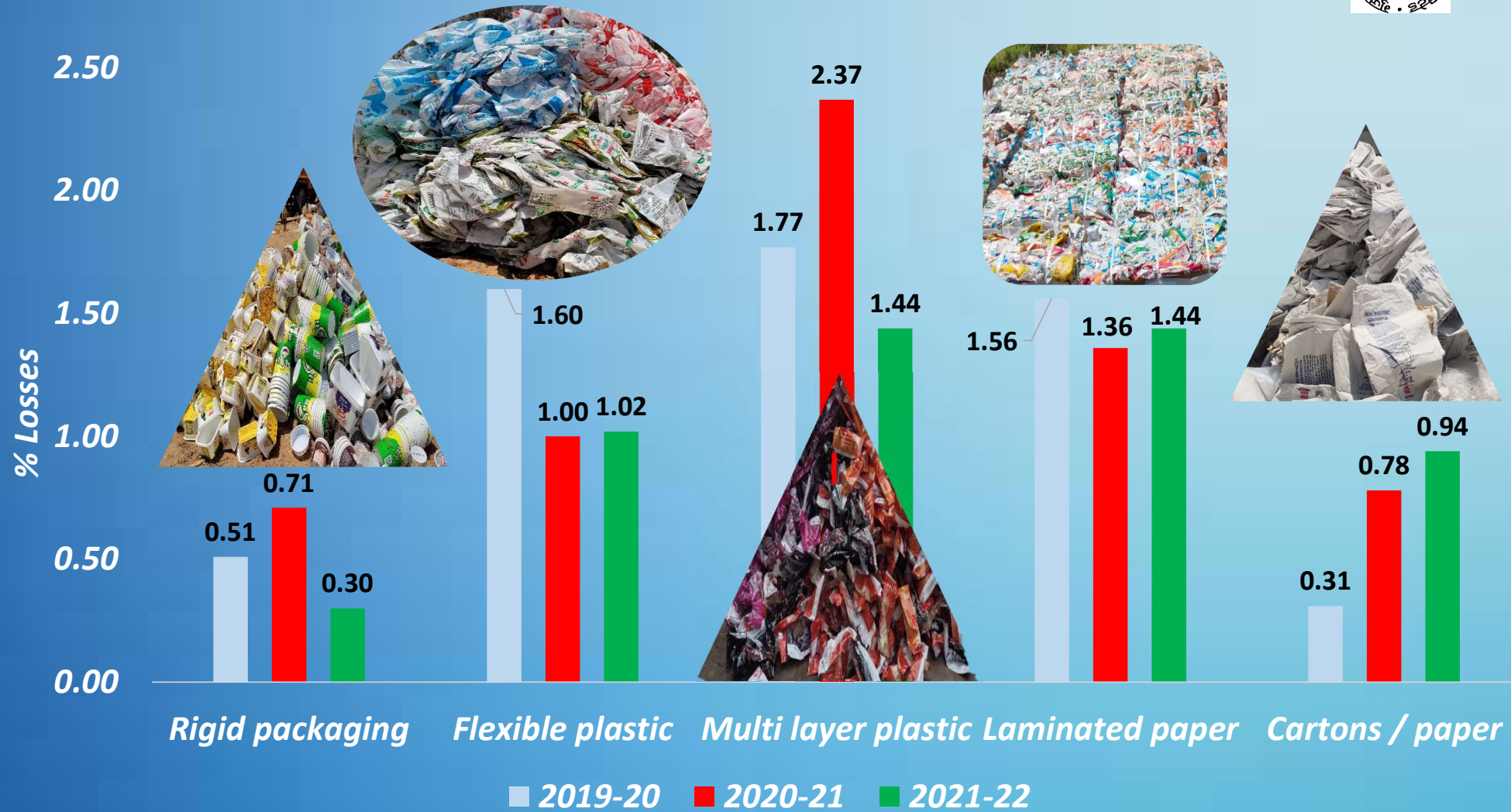
APPLICATION : *Recharge of ground water with Rain water*

BENEFITS : *Prevent ground water depletion and improve ground water quality
Reduction of ground water TDS, Hardness and chloride content.*

SOLID WASTE MANAGEMENT

Responsible
Operations

Solid Waste
Management



Responsible
Operations

Waste
Utilization &
Management

SR NO.	TYPE OF WASTE GENERATED	QUANTITY OF WASTE GENERATED(MT/YEAR)			DISPOSAL METHOD
		2018-19	2019-20	2020-21	
1	SOLID-PLASTIC (MLP)	1.2	1.3	1.3	Co-processing in Cement Plant
2	SOLID-DRY SLUDGE (BIOLOGICAL)	6.5	6.8	6.7	Garden soil conditioner
3	LIQUID-WASTE WATER -KL	610220	634647	672295	1) Re use in Plant 2) Use for Gardening within plant.

YEAR	TYPE OF WASTE GENERATED	QTY. LAC M3/ YEAR	WASTE AS % OF TOTAL FUEL
2018-19	BIOGAS	15.3	6.91
2019-20		15.2	7.34
2020-21		15.3	5.35

BIO GAS USED IN BOILER AS A FUEL AND ALSO USED IN COOKING PURPOSE AT CANTEEN AND QUARTER.



Responsible Material Sourcing



Responsible Operations



Business Competitiveness



Sustainable Value Chain

*Reduction in methane gas
emissions*

*Use of Ethno veterinary
medicines*

Green cover by tree plantation

*Efficient milk tanker
utilization*

*Sourcing from responsible
stakeholders*

*Exploring use of renewable
energy*

*Benchmark in specific Utility
consumption*

Milk Solid losses

Expanding green belt

Enabling Innovations

Plant Capacity Utilization

Rain Water harvesting

Solid waste management

Turnover (in ₹)

Average Milk receipt

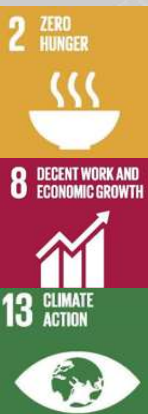
Production Output

Business Competitiveness

- Turnover
- Average Milk Receipt
- Product Manufacturing

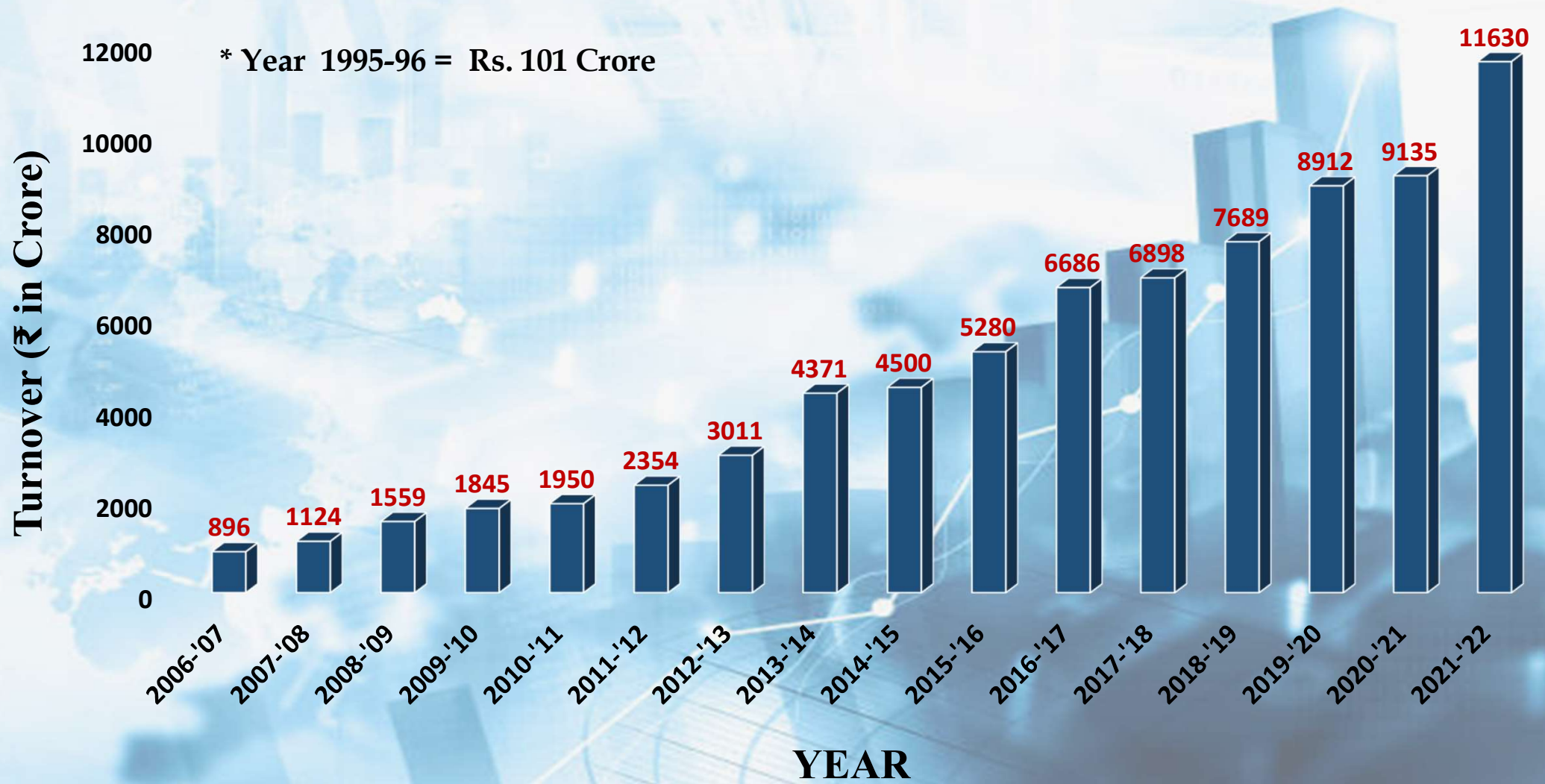
Leading in....

*Fresh Products
Milk Products &
Frozen Products*





TURNOVER (₹)





AVERAGE MILK RECEIPT (LKPD)



INCREASING TREND IN PRODUCT MANUFACTURING

YEAR	Milk pouch packing (lakh lt)	UHT Milk (lakh lt)	Fermented products (MT)	Butter (MT)	Ice cream (kl)	Ghee (MT)	Powder (MT)
2017-18	4450.7	1858	3.1	13847	19514	17275	36255
2018-19	4153.2	1857	4.2	15146	17725	23186	49742
2019-20	4346.9	1899	4.2	16196	17574	14961	47819
2020-21	4521.8	1967	4.2	19803	10266	38781	77689
2021-22	4494.8	2344	14.2	24435	14296	35002	85470

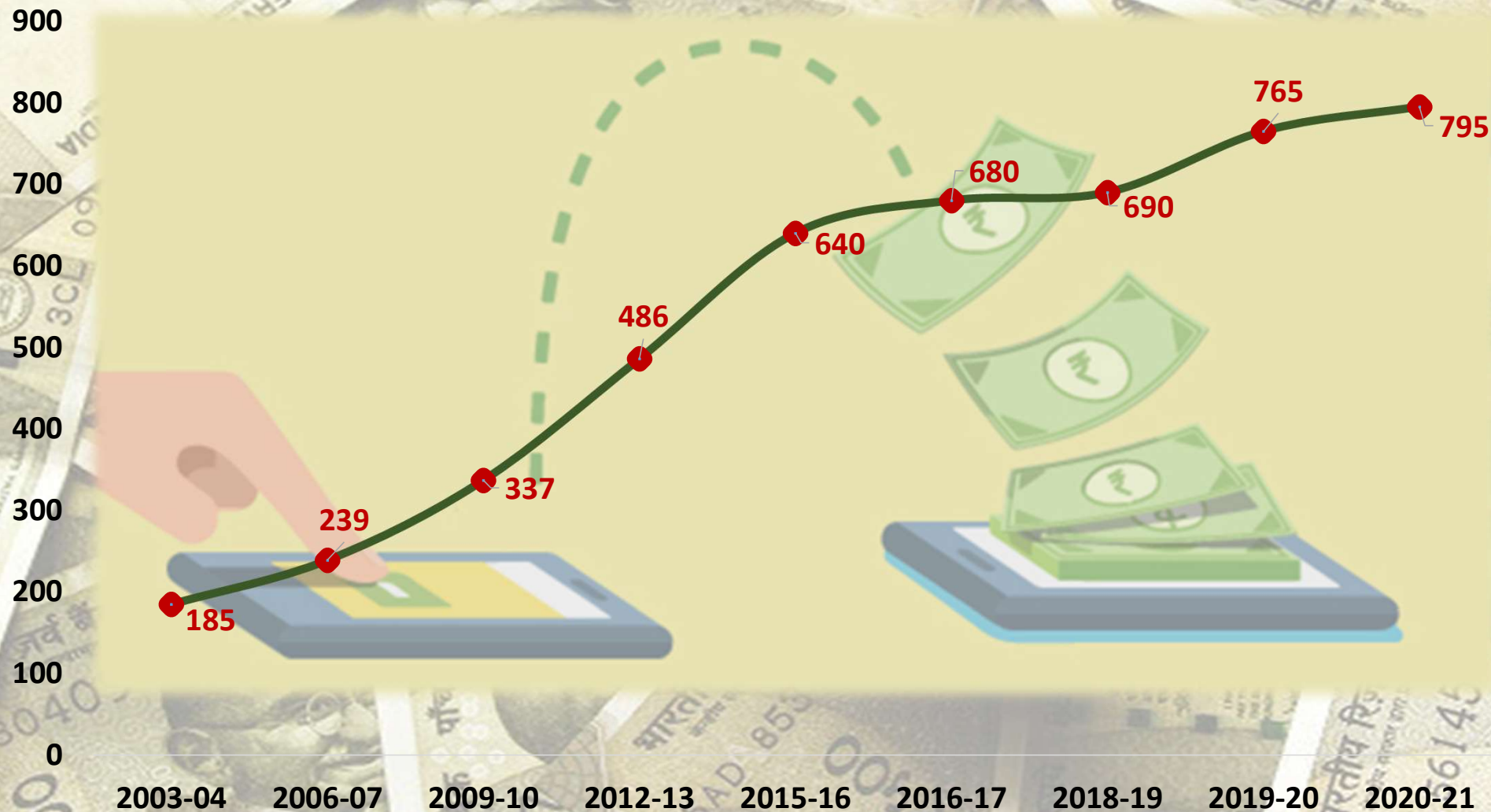


AVERAGE PROCUREMENT PRICE PAID TO PRODUCERS (In ₹ per kg fat)



**Business
Competitiveness**

Procurement
Price Paid To
Producers





Responsible Material Sourcing



Responsible Operations



Business Competitiveness



Customer Support



Sustainable Value Chain

*Reduction in methane gas
emissions*

*Use of Ethno veterinary
medicines*

Green cover by tree plantation

*Efficient milk tanker
utilization*

*Sourcing from responsible
stakeholders*

*Exploring use of renewable
energy*

*Benchmark in specific Utility
consumption*

Milk Solid losses

Expanding green belt

Enabling Innovations

Plant Capacity Utilization

Rain Water harvesting

Solid waste management

Turnover (in ₹)

Average Milk receipt

Production Output

*Products focused on health
and nutrition of customers*

*Extended producers
responsibility*

Plastic Waste recycling



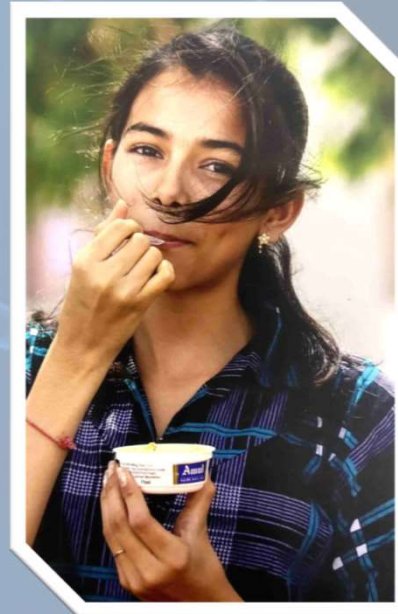
HEALTH AND NUTRITION FOCUSED...Amul Happy Customers



Customer
Support

Health &
Nutrition
focused
products

Range of AMUL Probiotic Products for improving GUT health of consumers





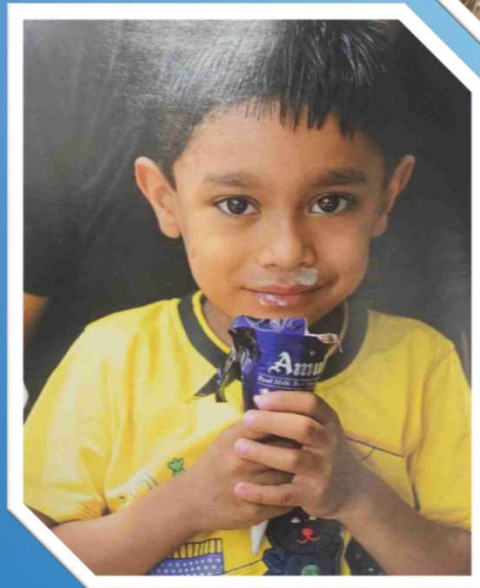
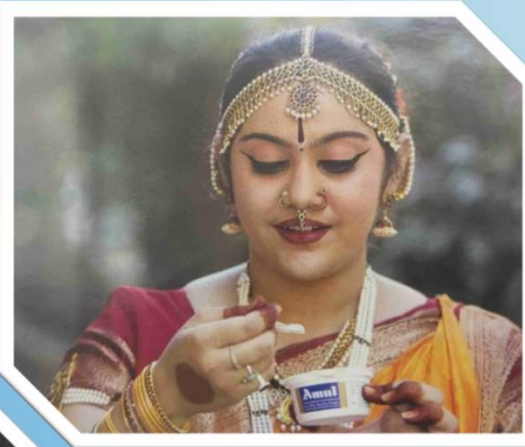
HEALTH AND NUTRITION FOCUSED...*Amul Happy Customers*



Amul



Sugar free
delights for
diabetic
consumers



Less Sugar delights
for Health
conscious
consumers





HEALTH AND NUTRITION FOCUSED...Amul Happy Customers



Sugar free flavoured milk for diabetic consumers

Amul



Immunity boosting range



Milk for lactose intolerant people

High Protein Lassi





CONTRIBUTION TOWARDS 'EXTENDED PRODUCERS RESPONSIBILITY'



Customer
Support

Average
Plastic Waste
Material
Recycled (in
MT) per
Month

313 MT



Flexible Plastic
(Non Multi Layered LDPE)

158 MT



Rigid Plastic
(Non Multi Layered - PP, PS, PET)

198 MT



Multi Layered Plastic
Waste

CATEGORY





PLASTIC WASTE RECYCLING



Customer
Support

Plastic
Waste
Recycling

8 DECENT WORK AND
ECONOMIC GROWTH



13 CLIMATE
ACTION



17 PARTNERSHIPS
FOR THE GOALS



Ref: TSP000143
Invoice No.: 876

Date: 16/06/2021

Certificate of Disposal

This is to Certify that

On behalf of

GCMMF Ltd.

Collected **375.810** MT of Non-Multilayer(LDPE) Plastic
Waste in **Gujarat** from end user towards Recycling,
to meet PWM Rule 2016 EPR compliance,
in the month of **May'2021**

Registered With: MPCB No. MPCB/RO (HQ)/Plastic/B: 1903000002
MPCB 180900348/TR-11, Valid till 31.08.2024

Certified by:

Rahul V. Podaar
Rahul V. Podaar
Partner



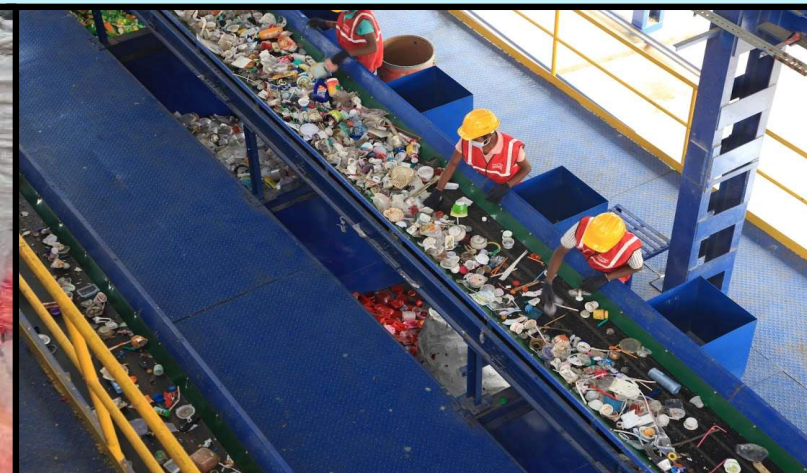
Associated with



Turning
Waste
To Value

15/16, Govind Bhawan, Chincholi, S.V. Road, Mahad-Ward, Mumbai-400 064.
tel: +91(22)28722946, +91 (22) 28721734
email: info@shaktiplasticindustries.com
website: www.shaktiplasticindustries.com

Plastic
Waste
Management-EPR



Responsible Material Sourcing

Responsible Operations

Business Competitiveness

Customer Support

Social Engagement

Sustainable Value Chain

Reduction in methane gas emissions

Use of Ethno veterinary medicines

Green cover by tree plantation

Efficient milk tanker utilization

Sourcing from responsible stakeholders

Exploring use of renewable energy

Benchmark in specific Utility consumption

Milk Solid losses

Expanding green belt

Enabling Innovations

Plant Capacity Utilization

Rain Water harvesting

Solid waste management

Turnover (in ₹)

Average Milk receipt

Production Output

Products focused on health and nutrition of customers

Extended producers responsibility

Plastic Waste recycling

Impact on livelihood of 3.6 million farmer producers.

Socio economic equality

Assured returns to farmers.

Trust Reinforcement during Pandemic conditions

Generating employment

Women empowerment

Blood Donation camps

Training & Competence

No Child Labour

IMPACT ON RURAL LIVLIHOOD

Social
Engagement

Impact on
Rural
Livelihood

YEAR	NO. OF DISTRICTS SERVED	NO. OF VILLAGE PRODUCERS SERVED (lacs)	NO. OF VILLAGE CO-OPERATIVE SOCIETIES	VOLUME OF MILK RECEIPT (LAC KG / DAY)
2017-18	20	34.56	18554	168.3
2018-19	20	36.16	18559	200.42
2019-20	20	36.36	18562	185.29
2020-21	20	36.37	18565	202.84

1 NO POVERTY



Support to Rural Livelihood by accepting milk from all Districts of Gujarat

17 PARTNERSHIPS FOR THE GOALS



Social
Engagement

Socio-
Economic
Equality



Value for Money



Value for Many

*Protecting interest of
milk producers by
providing
remunerative price*

AmulFed Dairy



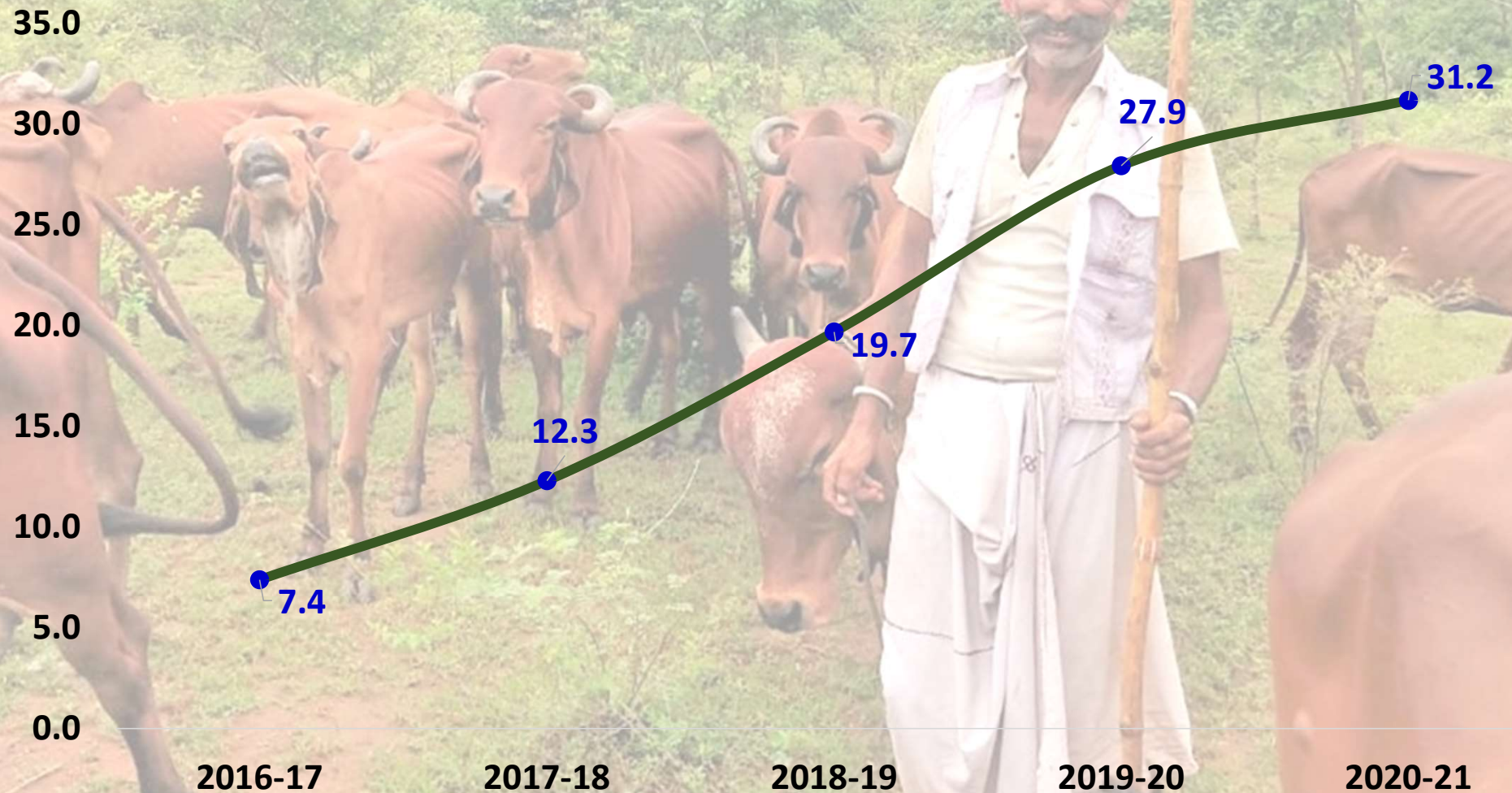
*Protecting interest of
consumers by providing
quality products at most
reasonable price*



% Increase in return to Farmers (considering 2015-16 % return as base line)

Social
Engagement

% Increase in
return to
Farmers





EMPLOYMENT ENGINE...



Social
Engagement

Direct employment to rural community including contract labours, Milk tanker drivers, Material vehicle drivers & external service providers.

Employment
Engine



Employment to approximately 1500-1700 Contract workers from rural area (Bhat, Koteswar, Motera, Ambapur, Sughad) including 80-100 Women worker also.



EMPLOYMENT ENGINE...



Employment to approximately
600 Gardening workers



Employment to
approximately 650
Milk Van drivers
& 60 Security
guards for Milk
dispatch activities



Employment to approximately
200 Milk tanker drivers



Social
Engagement

Efforts during
Pandemic
conditions

*Accepting all the
milk collected
from farmer
producers*



*Uninterrupted
supply chains
even in adverse
times of Covid 19
pandemic*



Social
Engagement

Employment
during
Pandemic
conditions

- *AmulFed Dairy is engaged in essential service business.*
- *Committed to operate 24 X 7 X 365 despite any adverse condition*
- *AmulFed Dairy accomplished its role during COVID 19 pandemic to handle high inflow of raw milk and meeting higher market demand in 2020 and 2021 while following all prevailing regulatory COVID 19 guidelines.*
- *AmulFed Dairy extended facilities like free lunch, tea & snacks facilities to all employees, contract workers, security person, gardening workers, and all person working in the organization during COVID 19 pandemic lockdown.*
- *AmulFed Dairy extended hostel facilities to contract workers to avoid their movement and reduces the risk of infection by Corona virus.*
- *AmulFed Dairy gave medical compensation to all COVID 19 warriors.*
- *AmulFed Dairy announced "HARDSHIP ALLOWANCE" to all employees during COVID 19 lockdown.*



Social
Engagement

Women
Empowerment



AmulFed Dairy firmly believes in Gender Equality.

Women employees assigned equal roles and responsibilities vis a vis men employees.

26 women employees are discharging their duties in various sections like Processing plant, Aseptic Packing plant, Ghee plant, Quality Assurance, Purchase, Accounts, etc.



Social
Engagement

Women
Empowerment



*Empowering women workers
working in the organization on the
occasion of International Women's
Day -2022*



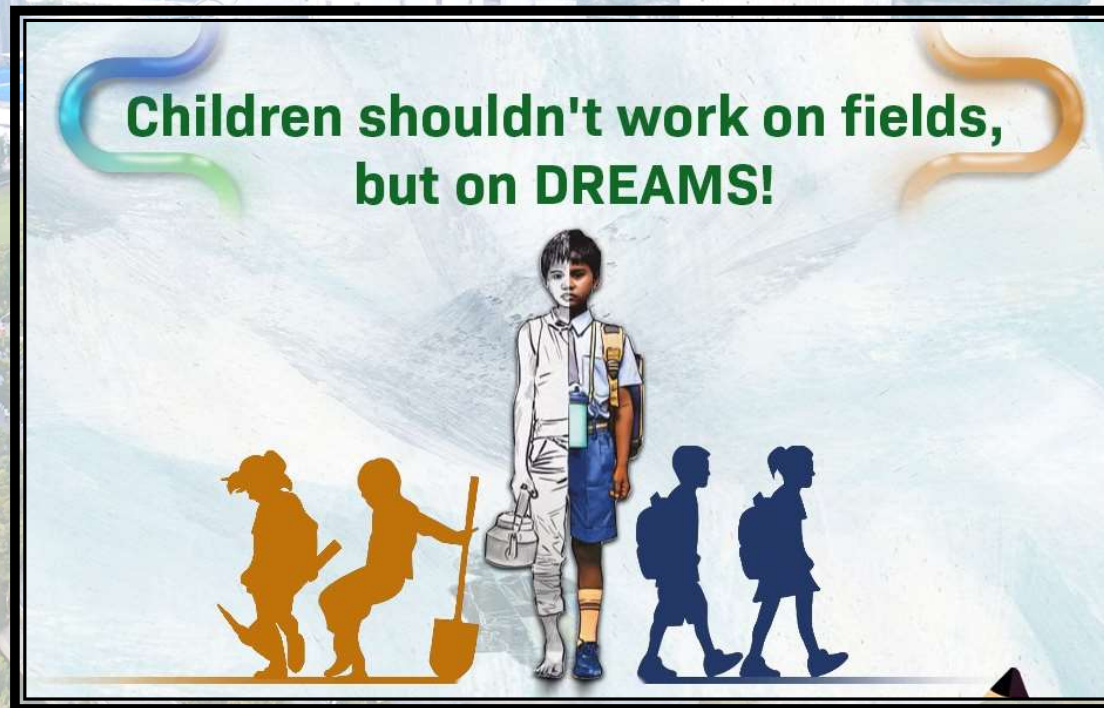
**'BREAK
THE BIAS'**



Social
Engagement

**'No Child labour is employed at AmulFed Dairy'.
Person below 18 years are not allowed to work in the organization.**

No Child
Labour



"LIFE OF LITTLE ONES ARE DESTROYED, WHEN CHILD LABOUR IS EMPLOYED"



BLOOD DONATION



Social
Engagement

Blood
Donation
Camps



Every year on Independence day, Blood Donation camp is organized in which Employees, contractual labours, security guards; take part voluntarily for the well being of the society. Also as vote of thanks different gifts were distributed, to sustain their zeal & motivation for social welfare.





TRAINING AND COMPETENCE



Social
Engagement

Training and
Competence

EXTENSIVE TRAINING
FOR BUILDING
COMPETENCE AT ALL
STAGES OF
PROFESSIONAL
JOURNEY



LEADERSHIP, STRATEGY,
LIASONING, CONTROL SYSTEMS

PROJECT MANAGEMENT PLANNING,
MANAGEMENT SYSTEMS, MIS, COSTING

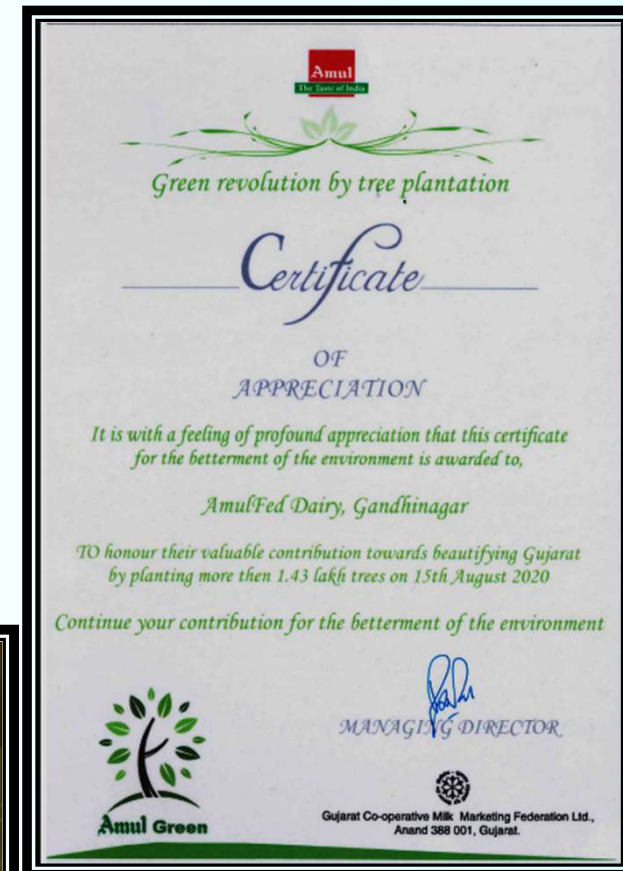
PLANT EFFICIENCY, PRODUCTIVITY,
CO ORDINATION, TEAM BUILDING

TECHNOLOGY, OPERATIONS,
MAINTENANCE

SOPs, PROCESSES, EQUIPMENTS



ACHIEVEMENTS





AmulFed Dairy

Plot No. 35, Nr. Indira Bridge, Ahmedabad-Gandhinagar Highway,

Village: Bhat; District: Gandhinagar; Pin code : 382428

Tel No. : (+91-79) 23969055-58; Fax No. : (+91-79) 23969059

Website : www.amul.com