



**Greater Purpose.
Greater Future.**



Contents

Who We Are	2	Key Achievements in FY19
	4	About the Report
	5	Grasim at a Glance
	6	Businesses
	20	Business Presence
	22	Milestones
	24	Awards and Accolades
	25	Branding Initiatives
	26	Chairman's Insights
	28	Managing Director's Communiqué
	30	Message from the CEO — Chemicals and Group Business Head —Fertilisers and Insulators
	32	Message from the Business Head — Textiles
	34	Message from the CFO
	36	Business Model
Sustainability Highlights	38	Approach to Sustainability
	41	Supporting UN SDGs
Operating with Integrity	44	Stakeholder Engagement
	46	Materiality
	50	Governance
	53	Risk Management
	56	Operating Environment
Cornerstones of Sustainability	58	Responsible Employer
	60	Social Initiatives
	68	Economic Value Creation and Distribution
Business Sustainability Review	72	Viscose Business
	94	Chemicals Business
	108	Allied Businesses: - Textiles - Fertilisers and Insulators
Additional Information	Annexures	
	122	Independent Assurance Statement
	124	GRI Content Index
	127	Glossary

Greater Purpose. Greater Future.

Sustainability is a journey — undertaken today for a better tomorrow. It is as much about greater business success as it is about the greater good through collective actions. The pursuit of excellence, reflected in our business processes and products, resonates in our efforts to raise the sustainability bar within our operations, collaboratively with our supply chain.

The Aditya Birla Group (ABG) is known for spearheading sustainability and actively participating in the global dialogue. As a leading industrial conglomerate established in the service of the nation when India started its growth trajectory, sustainability ethos is embedded in our culture from inception. We are focusing on balancing economic success, environmental stewardship and social progress,

while complying with the most stringent safety standards. We strive to make sustainability the core of our functioning — right from the way we design, manufacture and offer products to our customers; engage with our stakeholders; and assess risks and opportunities. Through this, we contribute towards achieving the UN Sustainable Development Goals (SDGs) as well as set our future targets.

Every step we take is aimed at creating significant impact on the economic value generated and distributed, helping build a vibrant stakeholder ecosystem. Our 'greater purpose' is to build a 'greater future' — a future where everyone can fulfil their needs without compromising resources available to the future generations.

**Responsible
Sourcing**

**Responsible
Manufacturing**

**Sustainable
Products**

**Valuable
Partnerships**

**Social
Responsibility**

Key Achievements in FY19

Enhanced Safety Performance

<p>Grasim 1.23 (46% reduction in Lost Time Injury Frequency Rate (LTIFR) at Grasim sites)</p>	<p>Textiles Zero LTIFR in Vikram Woollens since FY17</p>	<p>Chemicals (Advanced Materials) Zero LTIFR in Epoxy business since inception (FY13)</p>
--	---	--

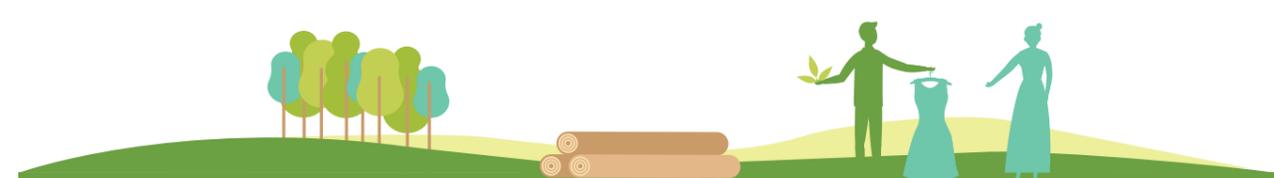


Responsible Water Use

<p>Successfully implemented Zero Liquid Discharge (ZLD) in two manufacturing plants of the Chemicals business</p>	<p>Among the lowest water consumption per tonne of Viscose Staple Fibre (VSF) globally, reduced water consumption by more than 50% in the past three years</p>	<p>Achieved a score of >90% on WBCSD Pledge for Access to Safe Water, Sanitation and Hygiene (WASH)</p>
---	--	--

Responsible Sourcing

<p>Leadership in Canopy rating for sustainable forestry</p>	<p>All the pulp and fibre manufacturing sites are FSC® CoC certified</p>	<p>100% controlled wood sourcing</p>
---	--	--------------------------------------



Innovation

<p>Circular Economy – innovation in VSF using 20% pre-consumer fabric waste</p>	<p>Launched sustainability-enhanced VSF — Livaeco™</p>	<p>Commissioned the third-generation 16 KTPA speciality fibre plant using our in-house green technology at Kharach</p>
---	--	--



Outperforming Leading Indicators

Outperformed the Dow Jones Sustainability Index (DJSI) global industry average score



Responsible Manufacturing

<p>Third-party verified Higg (3.0) FEM average score of 90 at all VSF manufacturing sites</p>	<p>Carbon Neutral Carbon sequestered is more than Scope 1 and 2 Greenhouse Gas (GHG) emissions</p>
---	---

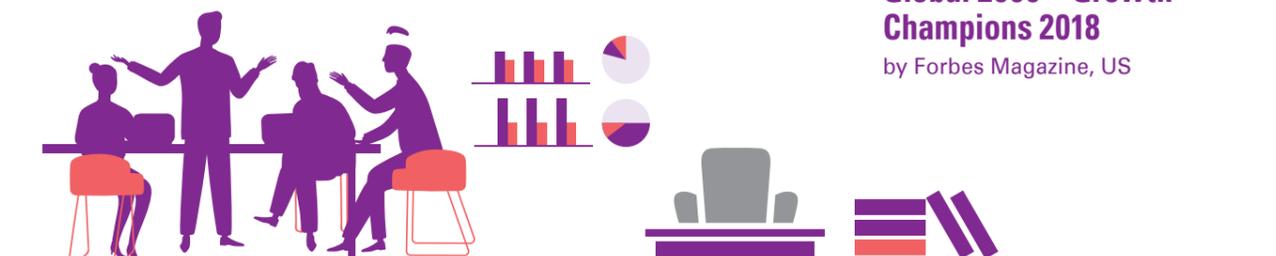
Social

24,390 Employees	2,55,334 Hours of training	₹47.14 crore CSR expenditure	10,24,000 Beneficiaries
----------------------------	--------------------------------------	--	-----------------------------------



Governance

<p>25% Women directors on the Board (three out of 14)</p>	<p>50% Independent directors on the Board</p>	<p>Ranked #205 in the list of Global 2000 – Growth Champions 2018 by Forbes Magazine, US</p>
--	--	--



About the Report

Approach to Reporting

Through this report, we wish to inform our stakeholders of our sustainability performance, our initiatives and their impact. The report will present our clear approach to sustainability, along with details on our risk management strategy, to make our business sustainable in the long run.

The Report presents our value-creation story, incorporating key financial and non-financial aspects, which include information on our Environmental, Social and Governance (ESG) performance on a consolidated basis.

The Report presents information on our performance in the key focus areas and material issues identified for the period from 1st April 2018 to 31st March 2019.

Reporting Guidelines

The Report is in accordance with Global Reporting Initiative (GRI) Standards – Core Option. Additionally, our disclosures are aligned with the following international and national charters and guidelines:

- > National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Businesses (NVG) in India, issued by the Ministry of Corporate Affairs, Government of India
- > Suggested framework on Business Responsibility Reports by the Securities and Exchange Board of India (SEBI) circular dated 13th August 2012

Reporting Boundary

The scope and boundary of the Report pertains to Grasim's domestic operations – Viscose Staple Fibre (VSF), Viscose Filament Yarn (VFY), Textiles, Chemicals, Fertilisers and Insulators businesses.

The Report includes data for these sites:

- Viscose Staple Fibre (VSF) — Nagda, Harihar, Kharach and Vilayat
- Pulp — Harihar
- Viscose Filament Yarn (VFY) — Veraval
- Chemicals — Nagda, Vilayat, Veraval, Karwar, Rehla, Renukoot and Ganjam
- Textiles — Rishra and Malanpur
- Fertilisers — Jagdishpur
- Insulators — Halol and Rishra

Materiality

This Report contains information that we believe is of interest to our stakeholders and presents a discussion around matters that can impact our business. We consider an issue to be material if it can substantively affect the organisation's ability to create value over the short, medium and long term. The material issues are different for each business and have been explained business-wise in the Report.

Independent Assurance

The Report has been externally assured by Ernst & Young Associates LLP. 'Limited Assurance' was provided based on International Standard on Assurance Engagements 3000 (ISAE 3000) and the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines. The Assurance Statement may be viewed on page 122 of this Report.

Feedback

The Report encompasses all aspects of our sustainability performance and has been prepared following standard benchmarks and processes. We are deeply committed to listening to our stakeholders' thoughts and opinions. Therefore, your feedback, enquiries, suggestions or information on any aspect of our sustainability performance are welcome, as they would enhance our sustainability reporting in future. You can address all your suggestions to grasim.sustainability@adityabirla.com

Grasim at a Glance Diversified in Business. Unified in Purpose.

Grasim Industries Limited (Grasim), the flagship company of the Aditya Birla Group (ABG), has evolved into a leading diversified player with a net consolidated revenue of over \$10 billion and an EBITDA of over \$1.8 billion in FY19. Beginning its journey as a textile manufacturer long back on 25th August 1947, the Company, today, is a leading global producer of Viscose Staple Fibre (VSF) and the largest chlor-alkali, epoxy, textiles (linen and wool) and insulator player in India. Grasim is also the largest cement producer in India through its subsidiary, UltraTech Cement Limited (UTCL), and a leading diversified financial services player through another subsidiary, Aditya Birla Capital Limited (ABCL). We remain committed to creating sustainable value for our 24,000+ employees, 2,30,000+ shareholders, and for our society and customers by embedding the Group's mission, vision and values in the way we do business.



ADITYA BIRLA GROUP

The ABG, a \$48.3 billion corporation, is in the league of Fortune 500 companies, rooted by an extraordinary force of 1,20,000+ employees from varying nationalities. Over 50% of its revenue flows from its overseas operations spanning 36 countries. The ABG is a leading player in aluminium, cement, VSF and filament yarn, carbon black, chemicals, copper, financial services, telecom, branded apparels, fertilisers and insulators.

THE SUSTAINABILITY VISION OF ABG

'To be the leading Indian conglomerate for sustainable business practices across global operations.'

MISSION

'To deliver superior value to our customers, shareholders, employees and society at large.'

VALUES

Integrity

Acting and taking decisions in a manner that is fair and honest. Following the highest standards of professionalism and being recognised for doing so. Integrity for us means not only financial and intellectual integrity but encompasses all other forms as are generally understood.

Commitment

On the foundation of integrity, doing all that is needed to deliver value to all stakeholders. In the process, being accountable for our own actions and decisions, those of our team and those on the part of the organisation for which we are responsible.

Passion

An energetic, intuitive zeal that arises from emotional engagement with the organisation that makes work joyful and inspires each one to give his or her best. A voluntary, spontaneous and relentless pursuit of goals and objectives with the highest level of energy and enthusiasm.

Seamlessness

Thinking and working together across functional groups, hierarchies, businesses and geographies. Leveraging diverse competencies and perspectives to garner the benefits of synergy while promoting organisational unity through sharing and collaborative efforts.

Speed

Responding to internal and external customers with a sense of urgency. Continuously striving to finish before deadlines and choosing the best rhythm to optimise organisational efficiencies.

Businesses

Delivering through Differentiation

At a standalone level, Grasim has two core businesses — Viscose and Chemicals. The Company is the leader in VSF and VFY and is the largest Indian manufacturer of caustic soda and specialty chemicals. Grasim is also a leading agri-solutions provider in the Indo-Gangetic plain, the largest manufacturer of electrical insulators in India and one of the leading linen and wool based textile manufacturers. In addition, Grasim is the largest cement manufacturer through its material subsidiary UTCL and is one of the top 5 diversified financial services provider through ABCL.

Viscose



Through viscose and yarn, we are present in the eco-friendly clothing and non-woven segment

A global leader in Pulp & Fibre

No.1

VSF producer in India

Chemicals



Through chemicals, we are indirectly present in various daily-use products

No.1

Caustic and specialty chemicals producer in India

Cement



Through UTCL, we are a part of the roads or flyovers you tread upon

No.1

Cement producer in India

No.3

Global cement producer (excluding China)

Financial Services



Through ABCL, we remain committed to fulfil the end-to-end financial services needs of retail and corporate customers

Top 3

Asset Management Companies**

Top 5

Private diversified NBFCs

** Excluding Exchange Traded Fund (ETF)

Allied Businesses



We are also present in the textiles, fertilisers, insulators and solar power businesses

No.1

In Linen

Leading player in fertilisers

Leading player in insulators

Growing presence in solar power

Businesses



VISCOSE

Viscose Staple Fibre (VSF)

Grasim is a pioneer of VSF in India and began production in Nagda plant in 1954. The business has grown steadily over six decades through its integrated business model, with captive raw materials — dissolving grade wood pulp, caustic soda, carbon disulphide, power generation and steam.

The nature-based bio-degradable fibre is fast emerging as a sustainable alternative to resource-intensive other fibres and finds use in apparel, home textiles, dress materials, knit wears and non-woven applications. We plan to expand our VSF production capacity, through brownfield expansion and debottlenecking initiatives, from 566 KTPA to 788 KTPA by FY21.

Our five-pillar approach to sustainability comprises responsible sourcing, responsible manufacturing, sustainable products and circular economy, value-chain partnerships and societal well-being.

Every employee is a Green Champion, contributing everyday towards energy conservation and social value creation.

Our wood sourcing policies meet stringent global standards and 100% of wood is certified by FSC®, SFI® and PEFC™, among others. Our pulp plants have integrated a closed-loop system, which results in lower energy and water consumption. In fact, water consumption at our fibre manufacturing units is among the lowest in the world.

We are among the first fibre companies to adopt Higg (3.0) FEM rolled out in all VSF manufacturing sites with benchmarked third-party verified scores. The pulp and fibre business of Aditya Birla (Birla Cellulose) comprises of VSF operations of Grasim Industries Ltd. (India units, pulp units of joint ventures in Canada and Sweden and VSF unit in China) and VSF units in Indonesia and Thailand. Birla Cellulose is carbon neutral with respect to scope 1 and scope 2 emissions owing to carbon

sequestered through managed forests in Canada. Therefore, VSF business operations of Grasim Industries in India are also carbon neutral as they form a part of Birla Cellulose.

We further strengthened our sustainability credentials by launching the first-of-its-kind eco-enhanced fibre variant in India — Livaeco™ — with end-to-end traceability, by leveraging the blockchain technology. Livaeco™ uses the lowest amount of water in the viscose industry and the journey of every garment can be traced to its origin. The fibres biodegrade and decompose within eight weeks, thus addressing landfill problems. We commissioned the third-generation 16 KTPA speciality fibre plant using our in-house green technology, which will enable us to enter newer end-use segments.

The business achieved a breakthrough in manufacturing viscose fibre using pre-consumer waste, which uses textile waste as an alternative raw material. We are working towards

building capabilities to recycle more than 50% of cellulosic waste.

Viscose Filament Yarn (VFY)

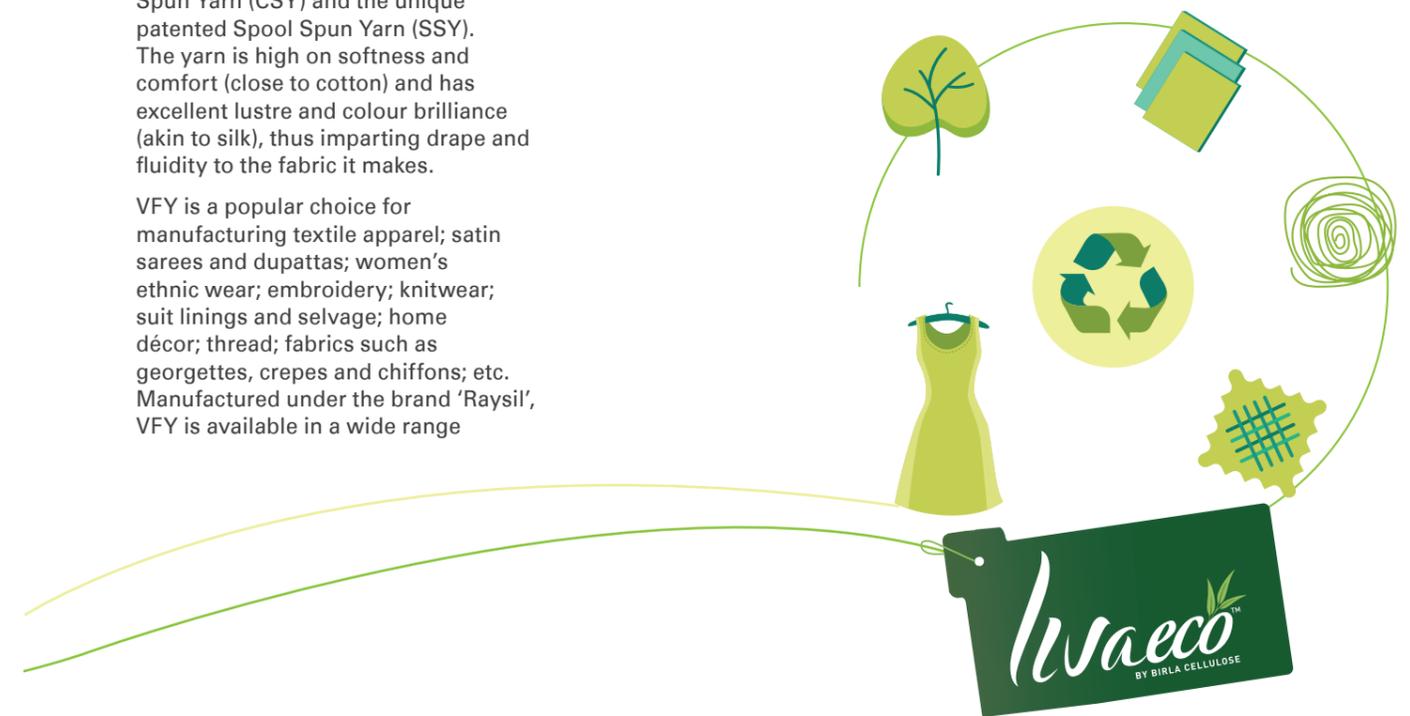
Grasim is the largest producer of VFY in India. We began production in the Veraval plant in 1963. We produce a range of VFYs made from rayon-grade wood pulp. We are the first in the country to adopt the most advanced VFY technologies, viz. Pot Spun Yarn (PSY), Continuous Spun Yarn (CSY) and the unique patented Spool Spun Yarn (SSY). The yarn is high on softness and comfort (close to cotton) and has excellent lustre and colour brilliance (akin to silk), thus imparting drape and fluidity to the fabric it makes.

VFY is a popular choice for manufacturing textile apparel; satin sarees and dupattas; women's ethnic wear; embroidery; knitwear; suit linings and selvage; home décor; thread; fabrics such as georgettes, crepes and chiffons; etc. Manufactured under the brand 'Raysil', VFY is available in a wide range

of 750 shades, with the flexibility of reproducing any shade to suit customer needs. Currently, our VFY capacity stands at 47 KTPA*. We are the largest exporter of VFY, accounting for 60% of total Indian VFY exports.

VFY is a textile ingredient that goes into the making of fabrics used in women's ethnic wear, embroidery and home textiles. VFY is a man-made filament yarn made from

100% natural raw materials. The raw material is sourced from FSC® certified sources. We continue to focus on safe sustainable operations, increased SSY capacity which consumes 68% lower water as compared to PSY, reducing environmental footprint, investing in product innovation and building a consumer-facing fashion brand to enhance customer value proposition.



FY19 Sustainability Highlights

Economic Performance

566 KTPA
VSF installed capacity

47 KTPA
VFY installed capacity*

541 KT
VSF sales volume

₹10,325 crore
Viscose net revenue

₹2,052 crore
Viscose EBITDA

Environment Performance

90%
Verified Higg (3.0) FEM Score

100%
Sourcing from sustainably managed forestry

Social Performance

0.30
LTIFR

Achieved a score of **> 90%**
On WASH Pledge

Brands



* Includes 26 KTPA of Century Rayon which is not part of the reporting boundary.

CHEMICALS

In 1972, Grasim's Chemicals business was set up in Nagda to manufacture caustic soda for its VSF business. Today, Grasim's Chemicals (chlor-alkali) business is the largest caustic soda producer in India and a leader in the chlor-alkali industry. The Chemicals business offers a wide range of products — from chlorine derivatives to epoxy.

Chlor-alkali

In 2016, Aditya Birla Chemicals India Limited (ABCIL) merged with Grasim, which led to increase in the Company's caustic soda capacity from 452 KTPA to 884 KTPA, making it the largest producer of caustic soda in India. Today, our total caustic soda capacity stands at 1,147 KTPA. In FY19, our caustic soda sales touched the 1 million tonne sales mark, making Grasim enter the league of top 10 producers globally. During the year, we acquired the chlor-alkali facility (under construction) at Balabhadrapuram in Andhra Pradesh. Our caustic soda capacity is set to increase from 1,147 KTPA to 1,457 KTPA by FY21.

The business has adopted membrane cell technology for production of caustic soda across its seven units and uses the latest sixth-generation electrolyzers with lowest power consumption.

Our value-added portfolio includes Poly-aluminium Chloride (PAC), Stable Bleaching Powder (SBP), Chlorinated Paraffin Wax (CPW), phosphoric acid, Aluminium Chloride (AlCl₃), Calcium Chloride (CaCl) and Chloro Sulphonic Acid (CSA). PAC is used in municipal water treatment, paper sizing and effluent treatment; SBP is used in water purification, sanitation and as a bleaching agent; CPW is used in plasticisers; phosphoric acid is used in food flavoring, beverages and cosmetics; AlCl₃ is used in pharma and dyes; and CSA is used in vinyl sulphate, the raw material for dyes and intermediates, drugs and pharmaceuticals.

Advanced Materials (Epoxy)

Set up in 2013 in Vilayat, Gujarat, Grasim is one of India's leading epoxy resins producer. The business offers an entire range of epoxy products to customers — from liquid epoxy resins and formulated resins to reactive diluents and hardeners — marketed under the brand 'Epotec'. Our product applications directly contribute to the generation and growth of the renewable energy sector. The installed gross capacity of advanced material (Epoxy) is 123 KTPA. Epoxy resin

is a versatile product, which finds application across industries viz. automotive, construction, heavy engineering, transport, electronics, food and beverage packing and coatings, thereby touching the lives of everyone.

We are committed to the Zero Harm Policy and ensure stringent adherence to safety best practices across our value chain, with an emphasis on safe handling and transportation of raw materials and finished products.

Our Advanced Material unit has maintained nil LTIFR and clocked more than 9 million LTI-free man-hours since the commissioning of the plant in FY13.



We follow the 3R approach to water conservation — reduce, reuse and recycle. During the year, we successfully implemented ZLD in two manufacturing units.

Being an energy-intensive business, we took significant steps in energy conservation by upgrading the electrolysis technology, using the latest sixth-generation electrolyzers with the lowest power consumption, and started consuming renewable energy in our Chemicals business. The chlor-alkali business has imbibed world-class manufacturing practices to sustain best-in-class levels. We have embarked on the Industry 4.0 journey through digitalisation as the key lever through real-time

tracking of material movement, central control towers for vehicle movements and centralised manufacturing station for process control.

We continue to invest in health and safety, skill and competency building and the overall well-being of our employees to drive performance excellence. We have adopted the practices advocated by the World Business Council for Sustainable Development's Water, Sanitation and Hygiene (WASH) Pledge to ensure safe drinking water, sanitation and hygiene to people across our operations.



Serve stakeholders with a vision to be a premium business that delivers

Safe, sustainable and profitable growth through focused commodity and specialty platforms offering superior customer experience.

FY19 Sustainability Highlights

Economic Performance

1,147 KTPA

Caustic soda capacity

1,003 KT

Caustic soda sales volume

₹6,437 crore

Chemicals business net revenue

₹1,827 crore

Chemicals business EBITDA

8

Patents filed

Environment Performance

0.13 million GJ

Renewable energy consumed

Brands



Social Performance

36,039

Total training hours

0.17

LTIFR

Allied Businesses (Textiles, Fertilisers and Insulators)

FY19 Sustainability Highlights

Economic Performance

Textiles
₹1,501 crore
 Net revenue

₹139 crore
 EBITDA

Fertilisers – Agri Business
₹2,812 crore
 Net revenue

₹238 crore
 EBITDA

Insulators
₹434 crore
 Net revenue

₹22 crore
 EBITDA

Environment Performance

26.58 million GJ
 Energy consumption

Social Performance

2.88
 Injury rate

88,162
 Total training hours

Textiles Brands LINEN CLUB

TEXTILES

Set up in 1949 at Rishra in West Bengal, Jaya Shree Textiles (JST) is one of India's leading linen and woollen textiles manufacturers and operates four Strategic Business Units (SBUs) – linen spinning, linen fabric, wool combing and worsted spinning. It is the only integrated linen manufacturer in India equipped with the latest spinning, weaving and finishing systems. JST sources the finest flax from France, Belgium and other parts of Europe to make 100% pure linen and uses cutting-edge technology to spin, weave and dye the fibres, which makes the process difficult to replicate. This enables

JST to manufacture 3,000+ different types of weaves, textures and blends. In 1995, Vikram Woollens (VW) was established in Bhind, Madhya Pradesh to produce a wide range of wool and wool blends such as wool and polyester; wool, polyester and lycra; wool land silk, wool and nylon; and speciality yarns such as 100% cashmere and cashmere blends. JST sells its products to 50+ countries, spanning six continents.

We are constantly finding innovative ways to make our supply chain responsible, inclusive, resource efficient and agile. Our innovative

'Wealth Out of Waste' (WOW) programme, aligned with the principles of circular economy, has resulted in unique products using flax production waste to produce intimate blended yarn and linen-rich fabric. We are associated with ZDHC Roadmap to Zero Programme. It is a collaboration between 50+ brands and value chain associates and affiliates working towards complete elimination of hazardous chemicals. Through this initiative, we will be aligning with a holistic approach, supporting safer chemical management practices across our value chain.



FERTILISERS – AGRI BUSINESS

Grasim's Fertilisers business is a leading agri-solutions provider. Our state-of-the-art manufacturing unit at Jagdishpur is one of the most energy-efficient urea producer in India and also manufactures customised fertilisers and organic fertilisers. Our product portfolio includes neem-coated urea (Birla Shaktiman), customised fertilisers (Birla Shaktiman Vardan), organic fertilisers (Birla Shaktiman Oorja), seeds, crop

protection, plant health / soil health products, etc. Our 'Birla Shaktiman' brand is one of the most popular fertiliser brands in the core market of the Indo-Gangetic plain. We fulfil aspirations of over a million farmers who reap a rich harvest of crops. We continue our R&D efforts to improve crop quality and yield, thereby contributing to the overall growth of the agriculture sector.

Brands



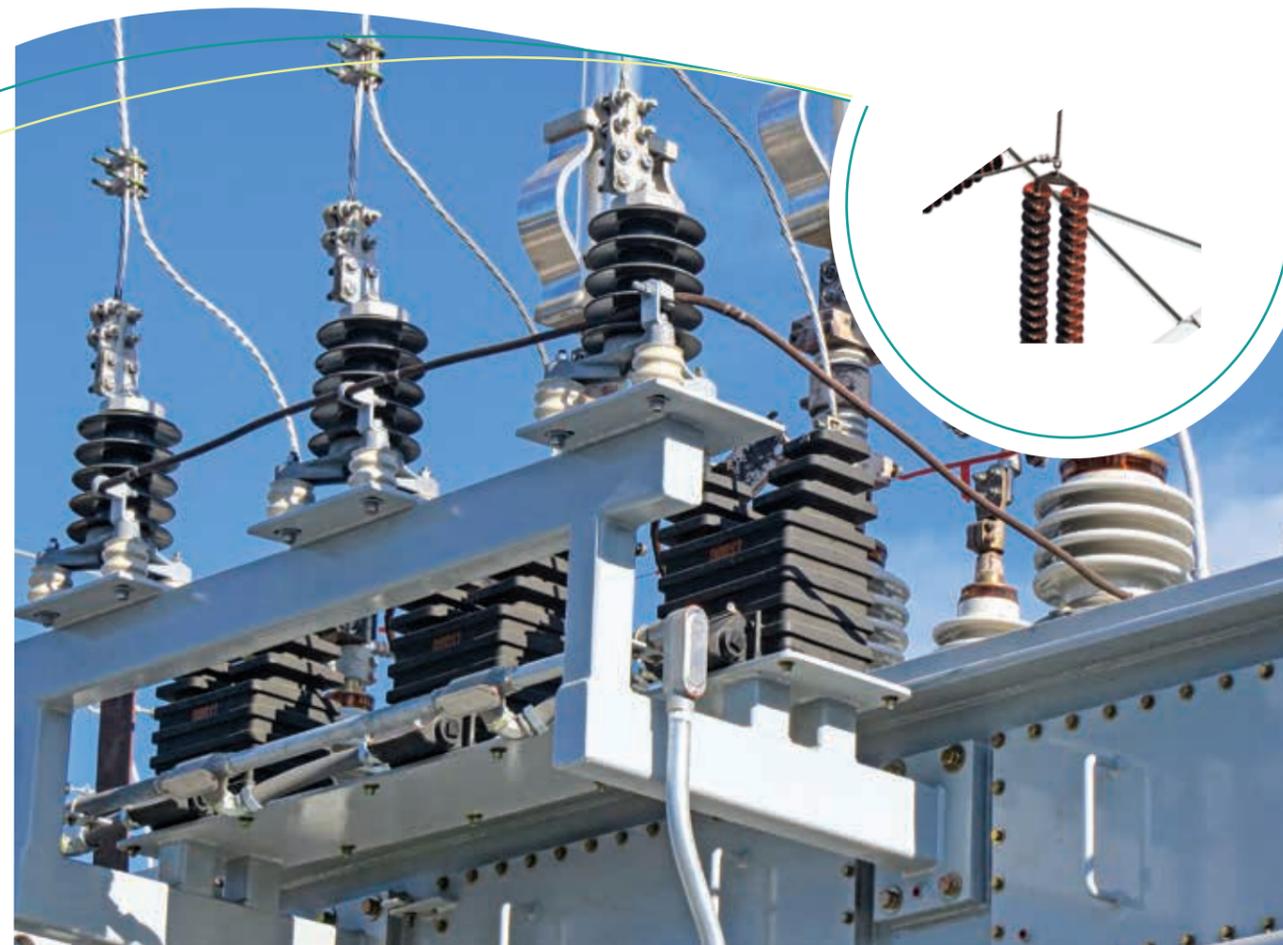
INSULATORS

Set up in 1967 at Rishra in West Bengal, Grasim is India's largest manufacturer of high-performance electrical insulators and among the top 3 globally. With a comprehensive range of high-performance porcelain and composite insulators for substations and equipment, transmission and distribution lines, and railway electrification, we have leveraged the power of reliability to provide world-class insulating solutions to the power industry.

We have two manufacturing facilities — at Rishra, West Bengal and Halol, Gujarat — that produce the widest

range of insulators in India, with an installed capacity of 56 KTPA. The facilities manufacture insulators for transmission lines and substations up to 1,200 kV, as well as insulators for power equipment and railway electrification. They specialise in both technologies of insulators — porcelain insulators, which have an operating life cycle of over three decades, and composite insulators, which display superior operational performance in heavily polluted and coastal areas.

Grasim incorporated Aditya Birla Power Composites Limited (ABPCL), a Joint Venture (JV) with Maschinenfabrik Reinhausen GmbH, Germany, in October 2019 to set up a state-of-the-art Composite Hollow Core Insulators (CHCI) manufacturing plant at Halol, Gujarat.



Other Businesses

ADITYA BIRLA RENEWABLES LIMITED (ABREL)



ABREL is the wholly owned subsidiary of Grasim and holds solar energy assets of the Company. The solar power platform bids for projects tendered at auctions, with the intent to develop and operate utility-scale solar power plants that can provide clean and cost-effective electricity to national grids across several key states in India. It also bids for capacities under the Group captive scheme with the ABG companies as counterparties.

ABREL does not use any fossil fuel or have any solid/liquid hazardous waste during the operation of the plant. We use potable water (as a natural resource) for washing of photovoltaic (PV) modules to avoid soiling and generation loss. For this, we have targeted major reduction in the consumption of potable water (base year being FY19) by using dry cleaning method, improving water atomisation, using chemical additives for reducing water usage specially for solar plants co-located with cement plants, etc.

Key Highlights

Parameters	March 2019
Cumulative Installed Capacity (MW)	241
No. of Projects	21
No. of Projects with Group Companies	9
Capacity with Group Companies (MW)	90

Subsidiaries



ULTRATECH CEMENT LIMITED (UTCL)

UltraTech Cement Limited (UTCL) is the largest manufacturer of grey cement, Ready Mix Concrete (RMC) and white cement in India. It is also one of the leading cement producers globally. The Company has a consolidated capacity of 116.85 MMTPA (including 4.00 MMTPA under commissioning) of grey cement. It has 23 integrated plants, one clinker plant, 26 grinding units and seven bulk terminals. Its operations span across India, the UAE, Bahrain and Sri Lanka. UTCL is also India's largest exporter of cement to countries around the Indian Ocean and in the Middle East. The Company has white cement production capacity of 0.68 MMTPA and two WallCare Putty plants with a combined capacity of 0.85 MMTPA. It markets white cement under the 'Birla White' brand. With more than 100 RMC plants across 35 cities, UTCL is the largest manufacturer of concrete in India.

We have a strategic long-term plan for GHG emissions reduction and mitigation linked to planned business growth. Currently, our installed Waste Heat Recovery System (WHRS) capacity stands at around 85 MW, one of the highest in the Indian cement sector, and accounts for 7% of our total power requirement during FY19. Additionally, we have 62 MW of effective renewable energy from solar and wind. Combining these with our 1,052 MW thermal power capacity ensures sourcing of majority of our power requirements through captive generation.

UTCL's sustainability performance and Sustainability Report are available at:

<https://www.ultratechcement.com/about-us/sustainability/overview>

Business Performance Highlights of UTCL – FY19

99 MMTPA

Capacity

76 MMT

Sales volume

₹37,379 crore

Net revenue

₹7,226 crore

EBITDA

Brands



ADITYA BIRLA CAPITAL LIMITED (ABCL)

ABCL has strong presence across the life insurance, asset management, private equity, corporate lending, structured finance, project finance, general insurance broking, wealth management, equity, currency and commodity broking, online personal finance management, housing finance, pension fund management, health insurance and asset reconstruction businesses. With 17,000+ employees and 2,00,000+ agents and channel partners, ABCL provides end-to-end financial services needs to its retail and corporate customers under a unified brand across India.

We have recently implemented an Environment, Social and Governance (ESG) scorecard that enables businesses to assess their portfolios' ESG risks. The scorecard is guided by international best practices such as Equator Principles and the United Nations supported Principles for Responsible Investment (PRI).

Here are some of the key highlights of our products impacting positive change in FY19:

- > Over ₹3,300 crore investments in renewable energy projects, contributing towards India's renewable energy capacity target of 175 GW by FY22
- > Secured ₹1,000 crore green loan by International Finance Corporation

(IFC), boosting our involvement in the renewables space

- > Commissioned our first rooftop solar power panel installation at the Aditya Birla Finance Ltd. (ABFL) office at Star Avenue, Bengaluru with plans for similar installations of renewable energy sources in other office buildings in the future
- > Most of our offices are installed with LED lights and water-saving taps, making them energy and water-efficient
- > Participates in the World Business Council for Sustainable Development's (WBCSD) WASH Pledge which ensures that all employees have access to safe water, sanitation and hygiene at the workplace. 13 out of 17 of our offices that participated in this survey, scored above 1.8 out of 2 (90%)

Average AUM of the Asset Management business

** The financials of ABCL have been restated in accordance with IND AS 103, Business Combination, post demerger of ABCL w.e.f. 4th July 2017. Hence, the net revenue and EBITDA will not match with ABCL reported figures

@ Includes NBFC and Housing Finance businesses

Performance Highlights of the Financial Services Business – FY19

₹2,65,109 crore

Average AUM#

₹63,119 crore

Lending book®

₹15,032 crore

Net revenue**

₹1,060 crore

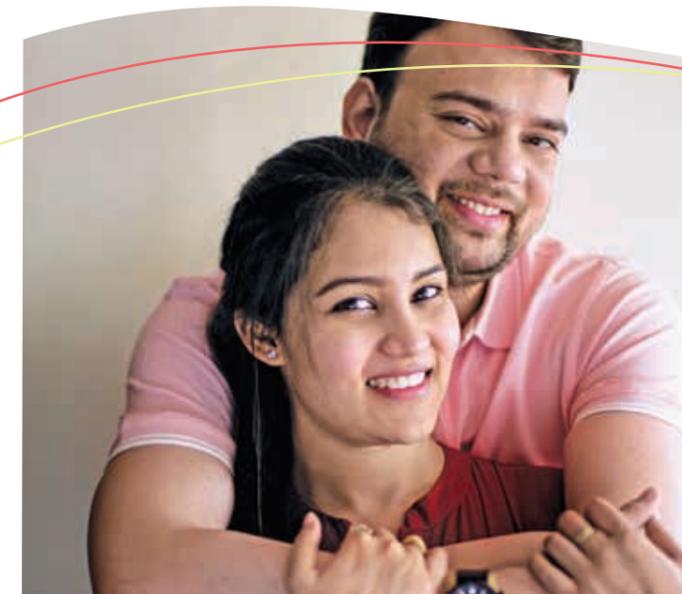
EBITDA**

Brands

Aditya Birla Sun Life Mutual Fund
Aditya Birla Health Insurance Co. Limited
Aditya Birla Housing Finance Limited

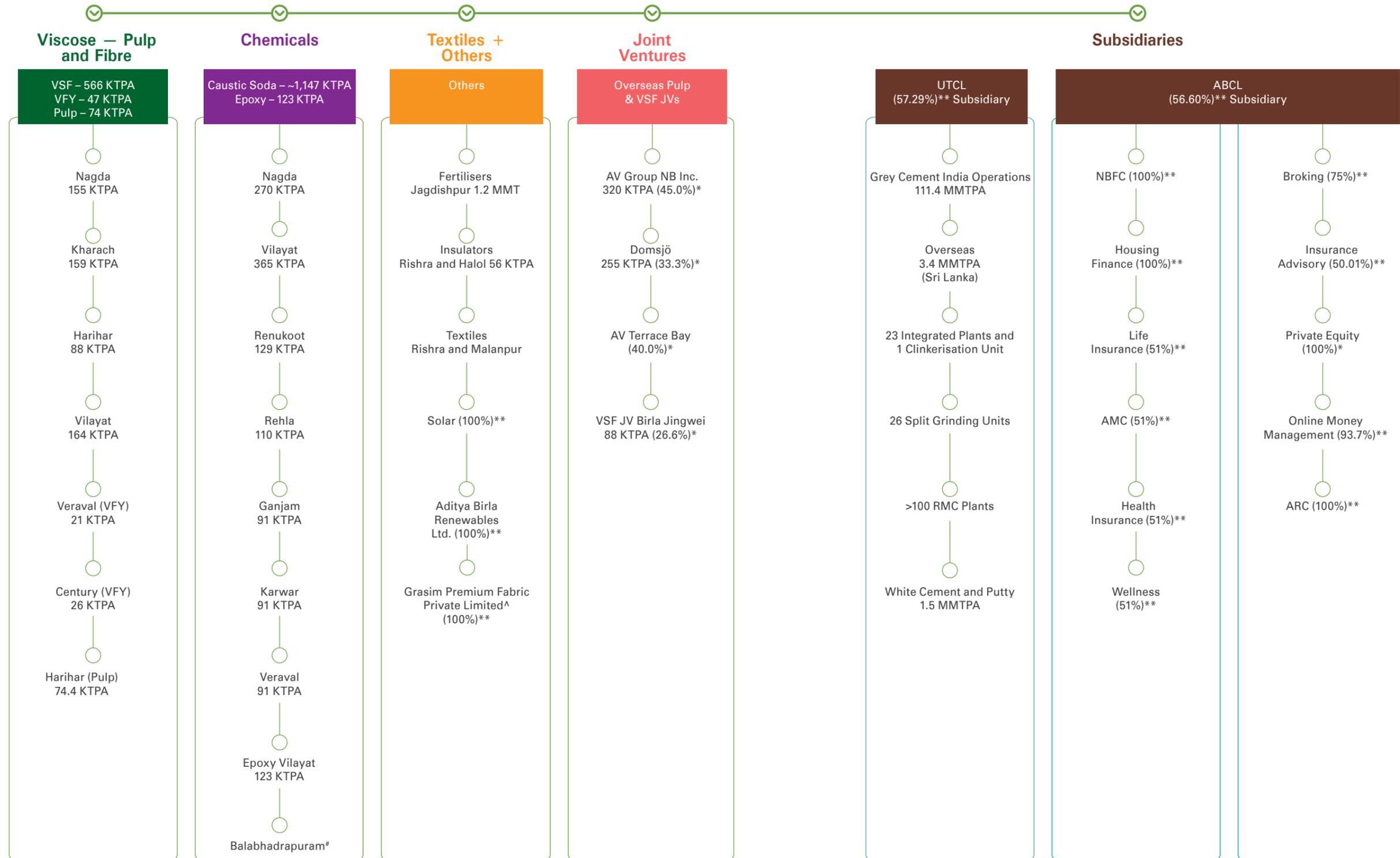
ABCL's sustainability performance is available at:

<https://www.adityabirlacapital.com/about-us/csr-and-sustainability>



CORPORATE STRUCTURE

Grasim Industries Limited



* Joint Ventures

** Subsidiary companies - Equity ownership

^ Saktas India has been renamed as Grasim Premium Fabric Private Limited post acquisition

Under construction chlor-alkali plant with capacity of 146 KTPA

Note: The organisation structure is as per Q3 FY20 investor presentation.

Business Presence

Operating Seamlessly across Geographies



Manufacturing Sites

Kharach, Gujarat	● VSF
Vilayat, Gujarat	● VSF
Nagda, Madhya Pradesh	● VSF
Harihar, Karnataka	● VSF
Harihar, Karnataka	● Pulp
Veraval, Gujarat	● VFY
Nagda, Madhya Pradesh	● Chemicals
Vilayat, Gujarat	● Chemicals (includes Epoxy)
Veraval, Gujarat	● Chemicals
Karwar, Karnataka	● Chemicals
Rehla, Jharkhand	● Chemicals
Ganjam, Odisha	● Chemicals
Renukoot, Uttar Pradesh	● Chemicals
Balabhadrapuram, Andhra Pradesh	● Chemicals
Rishra, West Bengal	● Textiles
Malanpur, Madhya Pradesh	● Textiles (Vikram Woollens)
Jagdishpur, Uttar Pradesh	● Fertilisers
Halol, Gujarat	● Insulators
Rishra, West Bengal	● Insulators

Business

● VSF
● VSF
● VSF
● VSF
● Pulp
● VFY
● Chemicals
● Chemicals (includes Epoxy)
● Chemicals
● Textiles
● Textiles (Vikram Woollens)
● Fertilisers
● Insulators
● Insulators

Registered and Corporate Marketing Office

Nagda, Madhya Pradesh	Grasim, Registered Office
Andheri, Mumbai	VSF, Marketing Office
Bangalore	VSF, Marketing Office
Bhilwara	VSF, Marketing Office
Erode	VSF, Marketing Office
New Delhi	VSF, Marketing Office
Surat	VSF, Marketing Office
Noida	LAPF Design Studio (VSF)
Jaipur	LAPF Design Studio (VSF)
Tirupur	LAPF Design Studio (VSF)
Worli, Mumbai	Chemicals, Corporate Office
Rishra, West Bengal	Jaya Shree Textiles, Corporate Office
Meghasar, Gujarat	Insulators, Marketing Office

R&D

Taloja, Maharashtra	Aditya Birla Science and Technology Co. Pvt. Ltd. (ABSTC)
Nagda, India	Birla Research Institute
Nagda, India	Next Generation Fibre Research Centre (NGFRC)
Kharach, Gujarat	Fibre Research Centre (FRC)
Kharach, Gujarat	The Textile Research And Development Centre (TRADC)
Taloja, Maharashtra	Pulp & Fibre Innovation Centre (PFIC)
Harihar, Karnataka	Clonal Production Centre (CPC)

Joint Ventures

Halol, Gujarat	Insulators (Aditya Birla Power Composites Ltd.)
Sweden	Pulp (Domsjö Fabriker AB)
New Brunswick, Canada	Pulp (AV Group NB)
Canada	Pulp (AV Terrace Bay)
China	VSF (Birla Jingwei Fibres Co. Ltd.)

Milestones

Revisiting Seven Decades of Transformation

A flagship of the ABG, Grasim was incorporated in 1947 as a textile manufacturer and, since then, has diversified into various sectors and industries, such as VSF, cement and chemicals.



1947-56

- > Grasim Industries Limited incorporated
- > Established JST for import substitution of industrial linen in 1949
- > Fabric production begins at Gwalior
- > VSF production commences at Nagda (Madhya Pradesh)



1957-76

- > VSF and pulp plants commissioned at Harihar
- > Caustic soda production commences at Nagda for captive use



1977-90

- > Vikram Cement, Grasim's first cement plant, began production at Jawad (Madhya Pradesh)

1991-96

- > Exited cotton and converted to synthetic spinning (Textiles)
- > Worst spinning plant set up in 1995 at Malanpur in Madhya Pradesh (now Vikram Woollens)
- > VSF plant commissioned at Kharach



1997-06

- > Controlling stake in UTCL acquired from L&T
- > First overseas acquisition (Canada) to form a JV for backward integration of pulp
- > A JV — Birla Jingwei Fibres Limited — formed in China and a VSF plant acquired in China



2007-13

- > Acquired Domsjö, Sweden for further integration into pulp
- > Caustic soda and epoxy plant commissioned in Vilayat
- > AV Terrace Bay Inc. in Canada acquired with Thai Rayon Public Co. Ltd, Thailand in a JV with other Group companies



2014-19

- > VSF plant with in-house technology commissioned at Vilayat
- > Consolidated caustic capacity with the merger of ABCIL with Grasim
- > Aditya Birla Nuvo Limited (ABNL) merged with Grasim
- > Under construction 200 TPD Caustic Soda Project acquired at Balabhadrapuram, Andhra Pradesh
- > A definite agreement signed to acquire 100% equity shareholding of Suktas India Private Limited

Awards and Accolades

Cherishing Recognitions

Our consistent pursuit of our corporate goals reflects in delighted consumers, members and stakeholders. Industry awards and accolades indicate that our peers recognise us, too.



Grasim has been awarded the Dun & Bradstreet Corporate Award 2019 as the **Top Company for its stellar performance in the Indian textiles sector**



Grasim has been **ranked #205 in the list of 'Global 2000 – Growth Champions 2018'** by Forbes Magazine, US



Jaya Shree Textiles and Vikram Woollens won Outstanding Accomplishment for **Corporate Excellence as domestic textiles businesses** at CII-ITC Sustainability Awards 2019



Grasim has been **ranked #154 among the Top Regarded Company of the World** in 2018 by Forbes Magazine, US



The **Jagdishpur unit** recognised with **Asia's Best CSR Practices Award** by CMO Asia, 2018-19



Grasim Pulp & Fibre won the award for **Next Gen Technologies at the ETCIO Annual Conclave 2019** presented by The Economic Times, India's leading business publication



The **Nagda chemical unit** awarded the **National Award for Manufacturing Competitiveness – Gold Award** by International Research Institute for Manufacturing, 2018-19



National Award for Water Management awarded by the Confederation of Indian Industry (CII), 2018-19



Among the top 3 recipients, the **Rehla and Nagda units** were recognised by the **National Energy Conservation Award** by the Ministry of Power, Government of India, 2018-19



The **Halol unit** received the **Global CSR Excellence & Leadership Award** by the World CSR Congress, 2018-19



Jaya Shree Textiles recognised at the **National Energy Conservation Award (NECA) – 2019** with **Certificate of Merit in the 'Textiles (Large Units)' category**



Jaya Shree Textiles rated **5-Star for Energy Conservation** and also awarded as **2nd Runners Up** at the 12th CII Energy Conservation Awards 2019 in the **'Large Scale Companies'** category



The **Harihar pulp unit** was awarded the **Golden Peacock Award for Sustainability, 2018**



'Excellence in Operations' in Manufacturing and Logistics at the IDC Insights Awards 2018



The **Veraval unit** recognised with the **Golden Peacock Award for Business Excellence** by Institute of Directors, 2017-18



The **Jagdishpur unit** recognised with the **Green Rating award as best among all urea-manufacturing companies in India** by Centre for Science and Environment (CSE), 2017-18

Branding Initiatives

Creating Ingredient Brand

Livaeco™ is the latest fibre from Birla Cellulose, with a host of sustainability features while retaining the fashion quotient of the brand. Livaeco™ comes from FSC® certified sustainable forests, thus conserving biodiversity, saving endangered forests and increasing the overall green cover. Livaeco™ promises minimal usage of water vis-à-vis other natural fibres in its manufacturing process and lower GHG emissions. Every Livaeco™ garment has a unique molecular tracer which helps the end buyer to trace the origin and full journey of the garment he/she is buying.



Chairman's Insights

Setting Sustainability Benchmarks Higher Every Year

Dear Stakeholders,

Sustainability is no longer just an environmental obligation for corporations. Today, it is a business imperative and needs to be hard-wired into corporate strategy. Profitability intertwined with sustainability, in the long run, positively benefits the people and the planet by enhancing livelihood opportunities to the communities as well as by safeguarding the environment.

In this context, I am pleased to share Grasim's Sustainable Development Report, aligned with the ABG's vision to be an industry leader for sustainable business practices across global operations. The endeavour is to deploy the best available technologies and benchmark them against global best practices to enhance long-term value creation.

Across businesses, Grasim has taken proactive steps in developing a framework for sustainability, based on the expectations of external and internal stakeholders as well as the United Nations Sustainable Development Goals (UN SDGs). In fact, in 2019, Grasim not only participated in the Corporate Sustainability Assessment by the Dow Jones Sustainability Index (DJSI), but also largely outperformed the global industry average.

As part of the sustainability strategy, our viscose business has harnessed a 360-degree sustainability approach. It has taken a decision to go beyond the regulatory norms and adopt the most stringent European norms (referred to as EU Best Available Technology) at all its viscose fibre manufacturing sites by FY22. Grasim's viscose business is increasingly setting industry-leading benchmarks on sustainable business practices, with the lowest water consumption. This, along with the leadership in sustainable forest management, has earned the Company the highest score in sustainability best practice, such as Higg FEM 3.0.

The recently launched eco-enhanced VSF brand, Livaeco™, has received favourable response across markets. With low GHG emissions, low water consumption and quick biodegradable characteristics, Livaeco™ is a leap forward in sustainable fashion. Equipped with a molecular tracer backed by blockchain technology, Livaeco™ helps trace garments to their source at any stage.

At the same time, our Chemicals business follows one of the best environmental policies in the industry and adheres to global safety standards. While new processes and

technologies are continuously adopted to minimise pollution and waste, natural resources are consumed responsibly and by-products are disposed of safely.

On the sustainability front, we have committed new investments and continue to embed sustainability in our organisational culture.

I congratulate the team at Grasim for publishing their maiden Sustainability Report and look forward to your continued support.

Regards,

KUMAR MANGALAM BIRLA

Chairman
Aditya Birla Group



WE HAVE COMMITTED
NEW INVESTMENTS AND
CONTINUE TO EMBED
SUSTAINABILITY IN
OUR ORGANISATIONAL
CULTURE.

Managing Director's Communique

Reinforcing Our Commitment to Greater Good



WE DERIVE OUR STRENGTH FROM OUR PRESENCE IN DIVERSIFIED INDUSTRIES, BACKWARD AND FORWARD INTEGRATION, PRODUCT GROUPS, GEOGRAPHIES AND CUSTOMER SEGMENTS.

Dear Stakeholders,

At Grasim, we are committed to creating positive value for all our stakeholders, including our customers, surrounding communities, shareholders, employees, business partners and the planet. With a vision to be a leader in sustainable business practices, we have always prioritised our Environment, Social and Governance (ESG) performance, which we believe is the foundation for a sustainable business. Our businesses not only focus on offering innovative products that cater to the needs of our customers, but also ensure the sustainability and protection of the environment we operate in. Sustainability is the core of our business strategy.

This report showcases a consolidated business view and the sustainability performance of Pulp & Fibre, Chemicals, Fertilisers, Insulators and Textiles businesses.

We derive our strength from our presence in diversified industries, backward and forward integration, product groups, geographies and customer segments. These gives us cost synergies within the ABG companies and make our businesses more resilient to any adverse changes in the external environment and market volatilities. While we deliver best-in-class business performance, we are also cognisant of our role in driving the United Nations Sustainable Development Goals (UN SDGs) and its agenda for 2030. The diversity also

creates opportunities to collaborate for common strategies on sustainability initiatives to deliver a broader and bigger positive impact. The strategy incorporates unique elements of the expectation of each of the businesses and the common elements from the UN SDG 2030 Agenda and Aditya Birla Sustainability Framework. The well-being of people and the planet is at the core of the Business Sustainability Strategy of each of our businesses.

From responsible sourcing to empowering suppliers and business associates, from future-proofing supplies and conserving natural resources to minimising environmental impact and encouraging a culture of trust and growth for our future leaders, Grasim has been at the forefront of delivering sustainable profitable growth. Our sustainability assessment score, which outperforms the industry average in the Dow Jones Sustainability Index (DJSI) 2019, testifies to this commitment.

In one of our fastest growing businesses, VSF, we introduced Livaeco™ (an eco-enhanced nature-based textile fibre) – a product that has unmatched sustainability credentials in its segment. We extended our offerings from apparel to home textile space-furnishing, bed linen and carpets. LIVAHome offers the same brand promise, while Liva Sarees enables effortless drape with a touch of luxury. Through our brand 'Linen Club', we have promoted linen across a wide customer base in India. Another important segment for viscose is non-woven applications, where Purocel™, made with impeccable cleanliness and purity, is just the right fibre for hygiene and medical applications.

In the Chemicals business, caustic soda sales surpassed the coveted one-million-tonne mark, the first for any company in India. We launched new valued-added products to cater to the food, plasticiser, sanitiser and water treatment space. We acquired the chlor-alkali facility at Balabhadrapuram in Andhra Pradesh.

We have deployed an eco-friendly co-gen power generation system at all our VSF plants. At a different level, our wholly owned subsidiary, Aditya Birla Renewables Limited, is promoting green power by undertaking solar

power generation projects across the country with a cumulative installed capacity of 241 MW.

Our Commitments for the Future

Building sustainable businesses by improving the operational efficiency of the value chains and improving the customer experience remains our primary focus for innovation. We have gradually implemented technologies to reduce our environmental footprint and consumption of natural resources by improving operating efficiencies. Grasim remains committed to sustainable forestry and has achieved 100% sourcing of controlled wood for its raw materials. The ABG is rated No. 1 in sustainable forestry practices by Canopy's Hot Button Report 2019 which is the primary fibre sourcing analysis tool for the fashion sector. It includes brands, retailers and designers committed to eliminating the use of ancient and endangered forests in viscose and other cellulosic fabrics, and to giving preference to textiles made from innovative fibres by the end of 2020. Further, Grasim endeavours to leverage the best available technologies for viscose fibre production to achieve best-in-class environmental performance, going beyond regulatory compliances, to the most stringent global standards, referred to as the European Best Available Technologies (EU BAT) standards, by 2022. We have committed a significant capex towards upgrading technology for close looping viscose production and for Zero Discharge of Hazardous Chemicals (ZDHC), among others.

Getting more from less is the driving force behind many of our sustainable innovations. We deploy emergent technologies to minimise our carbon footprint and waste generation, along with installing variable frequency drive to reduce energy consumption, retrofitting, redesigning processes and installing energy-efficient equipment. We continue to improve water-use efficiency in our operations, while affecting cultural change in conserving and reusing water. In the VSF business, we have reduced water consumption by more than 50% in the past three years, recording the lowest specific water consumption in the industry. Our overall water consumption in the Chemicals business in FY19 fell by 27% y-o-y.

WE CONTINUE TO IMPROVE WATER USE EFFICIENCY IN OUR OPERATIONS, WHILE EFFECTING CULTURAL CHANGE IN CONSERVING AND REUSING WATER.

At Grasim, doing business with integrity goes much beyond establishing a strong corporate governance framework and complying with policies, procedures and regulations. As a diversified enterprise, we continue to focus on a system-based approach to business risk management.

People play a crucial role in sustaining our competitive edge and achieving long-term success. We aim to attract and develop a workforce that is as diverse as our customers and communities. What sets us apart, though, is our culture of safety – encapsulated in our common goal of ensuring nobody gets hurt at work. We have collaborated with DuPont Sustainable Solutions to strengthen the Safety Management System in our businesses. OHSAS 18001/ISO 45001 is the foundation of our occupational health and safety programmes at our sites and has resulted in continued improvements in our safety performance.

We remain committed as ever to delivering enhanced value for our stakeholders. We encourage you to go through our Sustainability Report and share your valuable feedback. Together, we can take our sustainability journey to new heights.

Happy reading!

Regards,

DILIP GAUR
Managing Director
Grasim Industries Limited

Message from the Chief Executive Officer — Chemicals and Group Business Head — Fertilisers and Insulators

Building Platforms for Sustainable Growth

Dear Readers,

The world is evolving faster, expectations and demands of the society are growing larger, challenges from shareholders are getting sharper and millennials in the talent pool are increasing. We understand these realities and aspire to be the most admired business that sets an example in India and globally, in terms of adhering to values and returning shareholder value.

We benchmark ourselves to the global best-in-class companies that combine financial success with societal contribution. The most responsible and sustainable businesses are also the most financially successful in the long run.

Chemistry for a Greener World

The purpose of our business, 'Chemistry for a Greener World' is premised on our firm belief that armed with chemistry, innovation and R&D, manufacturing excellence and understanding of consumer needs, we will make our products, supply chains and solutions environmentally friendlier, safer and more socially responsible. We believe innovation and R&D will bring newer solutions to enable a greener world. We plan to invest heavily in R&D, foster a culture of innovation and allocate a percent of EBITDA towards technology and innovation that explores new and sustainable chemistries.

As we head towards achieving our purpose, **we will focus on three themes in the next several years:**

1. Commitment to GOAL ZERO

Zero harm and zero impact to the environment remains our main focus from the leadership to the shop floor, businesses and functions, supply chain and logistics providers. Our increased focus on safety helped

us reduce LTIFR by a third in the last financial year. We aspire to reduce LTIFR each year until we reach 'GOAL ZERO'.

2. Commitment to the Environment and Sustainable Development

We belong to a wide range of industries and produce an even wider range of products that are intricately linked to our lives (Pharmaceuticals, Hygiene & Sanitation, Agriculture, Power Insulation, Textiles, Paper & Pulp, Construction, Metals, Wind Energy, Paints & Coatings, etc). We treat water across municipal corporations and across cross section of industries in India and abroad. Such a diverse range of product offerings comes with significant water/power consumption. We aspire to be water neutral/positive through water harvesting, and ZLD technologies, and also strive to lower our carbon emissions significantly by increasing our dependence on renewable energy. We are working towards ZLD in our operations, implemented ZLD in two manufacturing units during the year and intend to complete ZLD in another three units by FY22. **We target to reduce freshwater intensity by 30% by 2025 and become water positive by 2030.**

We have made significant efforts in energy conservation by upgrading our electrolyzers to the sixth-generation technology with the lowest power consumption in our chlor-alkali business. Our fertiliser unit is one of the most energy-efficient urea plants in India. **We target to reduce carbon footprints / GHG emission by 30% by 2030 by utilising energy-efficient technologies, improving**

operational efficiencies, and increasing the share of renewable energy and other energy initiatives.

Our employees form the core of our operations and we continue to invest in their health and safety, skill and competency building, and their overall well-being to drive performance excellence. Our commitment to diversity and inclusion, and equal opportunities at the workplace remain unaltered. **We target to increase the number of female employees of the management cadre by three times by 2025.**

3. Continued Commitment to the Community Development

Our manufacturing locations have seen several decades of development. When we had set up these units, our primary intent was to create employment and rural infrastructure, healthcare and education facilities, and promote sustainable livelihood development and social empowerment. Today, these units are located adjacent to prosperous villages and towns that will need cleaner and greener surroundings.

We set up a state-of-the-art multi-specialty hospital at Veraval for minimising maternal and infant mortality rate and ensuring increase in life expectancy through better health services. Aditya Birla Public Schools at most of our manufacturing locations boast of world-class infrastructure with state-of-the-art science laboratories, student-friendly libraries and sports facilities, among others. We are setting up a new world-class school in the remote area of Rehla unit, likely to be commissioned in FY20.

During the year, we touched ~0.7 million lives through our community development programmes. Beside this, during the time of natural disasters, be it in J&K, Uttarakhand and Kerala, we were called to assist for drinking water and sanitation purposes, making us even more conscious about the difference we make to the society.

The Report will provide greater details on how we intend to focus on safety, our own commitment on making environment more friendly, and our continued focus on contributing to society in our own way.

As we transform for the future, sustainability will be the foundation on which we would build our financial success, retain our differentiated competitive edge and experience future success.

We thank you for your continued support and look forward to receiving your valuable feedback.

KALYAN RAM MADABHUSHI

Chief Executive Officer — Chemicals and Group Business Head — Fertilisers and Insulators

ZERO HARM AND ZERO IMPACT TO THE ENVIRONMENT REMAINS OUR MAIN FOCUS FROM THE LEADERSHIP TO THE SHOP FLOOR, BUSINESSES AND FUNCTIONS, SUPPLY CHAIN AND LOGISTICS PROVIDERS.



Message from the Business Head – Textiles

Delivering towards a More Inclusive Tomorrow



OUR SUCCESS HAS BEEN INTERTWINED WITH THE PROGRESS OF THE PEOPLE, COMMUNITIES AND BUSINESSES WE SERVE.

Dear Stakeholders,

Aditya Birla Textiles has powered its way to a leadership position in the textile industry by investing in people, processes and technology. Our commitment to sustainability is based on three key principles: operate with integrity, empower our people and protect our planet. Sustainability is a catalyst for creative ingenuity that prompts us to innovate, evolve and adapt and, in the process, make our supply chain responsible, inclusive, resource-efficient and agile.

The Indian economy remains the biggest driver of the textile sector, providing a large captive market and various comparative advantages for exports. India is also a young market; its rural areas are relatively underpenetrated, leaving significant headroom for consumption growth. The fundamental strength of the industry lies in its production base with a wide range of fibres and yarns. There's also a growing preference for value-added fashionable products.

With Jaya Shree Textiles (JST) and Vikram Woollens (VW), Aditya Birla Textiles is a leading player in the domestic linen and worsted yarn segment in India. We have revolutionised the Indian textile market by popularising 'linen' across a wide customer base with the 'Linen Club' brand. At the same time, we aim to deliver products that are safe for our customers and that minimise our environmental footprint. Chemicals management thus forms an important aspect in product design, safe operations and quality of effluents from our units.

Guided by the ABG sustainability framework comprising stakeholder engagement, responsible stewardship and future proofing, we are embracing global alliances and frameworks to ensure that all our units meet the same standards of sustainability excellence.

Product Innovation and Customer Centricity

Through product innovation, we are making one of the most important stakeholders – our customers – a collaborating partner towards achieving the ABG Sustainability Vision. Our relentless focus on customer centricity enabled us to develop many Value-added Products (VAP).

Enabling Sustainability through Digital Transformation

Digital technologies are disrupting the way business is conducted. They are being leveraged by leading businesses to manage resource and energy inputs more effectively using connected devices, data-driven analytics, automated decision making, predictive maintenance and other applications. Our textiles business is deploying digital technology solutions to make our operations and supply chains more efficient, safe and economical.

The safety of our people, their training and development, the diversity of our workforce, and ethical practices in our operations and supply chain are paramount to us. We constantly endeavour to create a conducive, safe, protected and happy work environment.

Our success has been intertwined with the progress of the people, communities and businesses we serve. It is only in an inclusive society, which uses its resources responsibly, our customers and, in turn, our business can thrive. Thus, a differentiated and robust approach to Environmental, Social and Governance (ESG) issues makes good business sense.

For Aditya Birla Textiles, collaborating around key themes such as climate change, circular economy and resource efficiency is a crucial step in creating sustainable value for our customers, employees and the society at large. Our streamlined operations, robust governance structure, proactive risk management, and ethical and transparent practices provide us the solid foundation in a dynamic environment to leap into the future.

With a holistic long-term vision aligned with our business, social and environmental objectives, we aim to be a future-ready corporate, committed to delivering sustainable profitable growth and societal value creation.

Regards,

THOMAS VARGHESE
Business Head — Textiles

Message from the CFO

Committed to Creating a Sustainable Future

Dear Shareholders,

Grasim recognises its role in the society and its commitment to create a sustainable future. We focus on our products and processes to make greater impact. We identify new opportunities to integrate these objectives into the work we do every day, enabling us to make positive impact on our customers, employees and the society.

Our growth story during the year was an outcome of a favourable macro landscape and our prudent future-focused strategies. The Company fortified its corporate governance framework and strengthened its promise to the stakeholders by implementing policies that will ensure long-term sustainability.

Performance in FY19

It was a remarkable year for Grasim, with each of its business segments making steady progress and taking us a step closer to realising our vision. We remain focused on building an organisation that's customer centric and committed to delivering customised solutions in step with their requirements. Achieving greater scale, agility, efficiency, integration of our business, and above all, creating a sustainable framework for the future are our core objectives.

Consolidated revenue from operations (net of excise duty) increased to ₹72,971 crore from ₹55,894 crore in FY18, driven by all-round growth in the Financial Services, Cement, Viscose and Chemicals businesses

with steady uptick in production and sales volumes. EBITDA at ₹12,820 crore came in much higher during the review period (from ₹10,883 crore in FY18), despite increase in costs of major inputs.

The Viscose business reported another year of strong performance. The Chemical business is witnessing expansion in chlor-alkali as well as specialty chemicals. The recent acquisition of the chlor-alkali business (plant under construction) is aimed at increasing our market share in eastern India — a caustic soda consumption hub. Our Linen business maintained its market leadership with ~45% share in linen fabric (Pure Linen category) and ~45% in linen yarn. Its retail arm, 'Linen Club', is one of the largest single-brand franchise networks in India; 28 new 'Linen Club' Exclusive Business Outlets (EBOs) were added during FY19, taking the total to 200. In our endeavour to improve premium fabric offering to our customers, we completed the acquisition of Suktas India business, enabling our entry into the premium fabric segment.

Our Strategy for Growth

We aim to increase utilisation by focusing on productivity, efficiency and capacity utilisation. As a growing enterprise, we ensure that our capital allocation decisions are prudent and strategic long-term growth drivers. We are focused on completing organic capacity expansions using the latest technology available.

Strong Governance

Our robust operating model, sound governance structure, effective risk management, and ethical and transparent practices provide a sound platform for value creation in the short, medium and long term. Above everything else, in a dynamic business environment, ethical practices provide us with the resilience to stay anchored and the confidence to forge ahead.

Going Forward

I would like to thank the team for their hard work and commitment to deliver on our strategic objectives. Going forward, we will maintain a strong balance sheet, drive organic growth and seek out margin-accretive acquisition opportunities.

Regards,

ASHISH ADUKIA
Chief Financial Officer



AS A GROWING ENTERPRISE, WE ENSURE THAT OUR CAPITAL ALLOCATION DECISIONS ARE PRUDENT AND STRATEGIC LONG-TERM GROWTH DRIVERS.

Business Model

Leveraging Resources and Relationships to Deliver Value

Our business model enables us to leverage resources and relationships to produce long-term sustainable outcomes for our stakeholders.

CAPITALS

Financial Capital

Financial Capital is the value of money that we obtain from providers of capital that is used to support business activities and profits generated thereof is distributed among stakeholders and retained to fund business activities.

Manufactured Capital

Manufactured Capital is our tangible and intangible infrastructure used for value creation through business activities.

Intellectual Capital

Our Intellectual Capital consists of our strong brand, highly experienced people, world-class technology and robust processes and systems.

Human Capital

Our management, employee base and contract workers form part of our workforce. Their skills and collective experience are major contributors to our value creation.

Social and Relationship Capital

Social and Relationship Capital refers to the relationships we establish with our customers, investors, regulators, suppliers and community at large to create societal value as a responsible corporate citizen.

Natural Capital

Natural Capital refers to the natural resources the Company uses to create value for its stakeholders, as well as its efforts to promote natural resource preservation and environmental mitigation.

INPUTS

Financial Capital

Equity share capital — ₹132 crore
Net Debt as of 31st March 2019 — ₹19,653 crore
Capex planned as of 31st March 2019 — ₹6,454 crore

Manufactured Capital

Number of sites for VSF and VFY businesses — 6
Number of sites for the Chemicals business — 8*
Number of sites for the Fertilisers, Insulators and Solar businesses — 3
Number of sites for the Textiles business — 2

Commissioned third-generation 16 KTPA specialty fibre manufacturing plant using in-house green technology

Intellectual Capital

R&D Expenditure (last 3 years) — ~₹235 crore
71 patent applications in 15 countries belonging to 32 patent families (VSF)
Nine patents filed and three are being processed for registration (Chemicals, Fertilisers and Insulators businesses)

First in India to adopt the most advanced SSY technology (VFY)

Human Capital

Number of employees — 24,390
Number of employees in the R&D team — 131

Social and Relationship Capital

Total CSR expenditure — ₹47.14 crore

Natural Capital

Total energy consumption — 73.48 million GJ
Total water withdrawal — 54.15 million m³

* Excluding Balabhadrapuram

OUR BUSINESSES

Viscose

With leadership position in viscose and yarn, we are present in the eco-friendly clothing and non-woven segment

Chemicals

We are indirectly present in various daily-use products

Allied

We are present in the Textiles, Fertilisers, Insulators and Solar Power (100% wholly owned subsidiary) businesses

OUTPUTS

Investors

Stable returns through share price appreciation and dividend payout

Customers

Value to customers by providing high-quality solutions

Employees

A safe, rewarding and inspiring place for employees to work and develop their careers

Supply Chain

Partnership opportunities for suppliers and subcontractors to contribute to, and share in, our success

Community

Improving the quality of lives; leadership in commitment to social and environmental sustainability

OUTCOMES

Financial Capital

Net revenue — ₹20,550 crore (y-o-y growth of 30%)
EBITDA — ₹4,639 crore (y-o-y growth of 31%)
PAT before exceptional items — ₹2,574 crore (y-o-y growth of 30%)
AAA rating for long-term debt by CRISIL

Intellectual Capital

Initiated new areas such as robotic process automation, Artificial Intelligence (AI), Machine Learning (ML), analytics, design thinking, etc.
Number of patents — 2 filed in the areas of water treatment, on raw material and process improvement

Human Capital

LTIFR — 0.30 (Viscose), 0.17 (Chemicals)

Social and Relationship Capital

Total number of direct and indirect beneficiaries of CSR initiatives — 7,12,140
Mission Happiness — Engagement activities undertaken to deliver a positive and unique customer experience
Over 297 villages covered

Natural Capital

Total GHG emissions (Scope 1 + Scope 2) — 5.83 MMTCO₂e
Waste disposed — 6,22,372 MT

Note: The business model is indicative. It includes data on businesses — Viscose, Chemicals and Allied. It does not include data related to Renewables and other material subsidiaries — Cement and Financial Services, and all other business under Grasim, apart from the scope.

Approach to Sustainability Building in Greater Accountability

Grasim's businesses are aligned with the ABG's vision of operating in a sustainable world. The ABG is a member of the UN Global Compact, an international forum that envisions a sustainable global economy. Sustainability means 'Think about Tomorrow, Today'; it is about taking responsibility for our actions today to assure the well-being of the future generations. We are adopting new processes and technologies to ensure safety at our plants and providing sustainable livelihood opportunities to surrounding communities while safeguarding the environment. The ABG has developed a Group sustainability framework, which is supported by three strategic pillars:

Responsible Stewardship

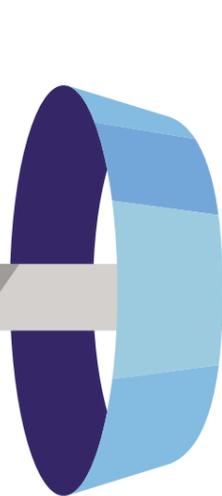
Create a framework to move us towards international standards and mitigate our impact on 'externalities'



A business 'operating space' is bounded by the laws we have today

Stakeholder Engagement

Gain knowledge to understand how and when 'external factors' will change and when disruptions to our businesses may occur



The operating space shrinks given voluntary adoption of today's international standards

Future Proofing

Including adaptation to external factors in our businesses' strategic plans



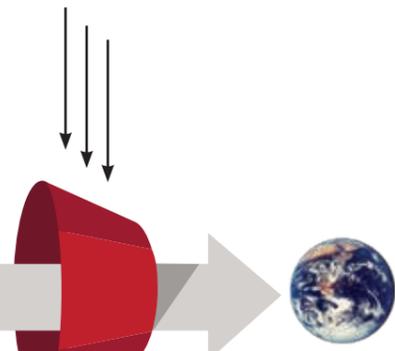
Adopting best practices today means developing even tighter control systems

We are developing policies, technical and management standards and guidelines that conform to international standards such as UN SDGs, International Finance Corporation (IFC), Organisation for Economic Co-operation and Development (OECD), United Nations Global Compact (UNGC), International Organization for Standardization (ISO) and OHSAS. These policies will steer our business activities towards excellence and become best practices.

We are continuously shaping our business strategy to minimise risks and maximise opportunities. This enables

us to adopt appropriate mitigation measures against potential risks. We use the risk map developed by our Group Sustainability Cell as an operational guidance across our businesses to develop strategies that are best suited to mitigate the risks.

Backed by our desire to create value for the society, we have put in place a comprehensive sustainability strategy that's aligned with our business objectives and contributes to the UN SDGs. Our actions are guided by our values and policies, and by our commitment to the UN Global Compact Principles.



By FY30, we expect more demanding laws and regulations to further shrink the business operating space

By FY50, for a sustainable planet, the necessary legal constraints on business will require many to completely transform their value chains to remain sustainable



Pillars of Our Sustainability Framework

The four pillars of our sustainability framework provide a broad outline of our contributions towards a sustainable future.

Professional Excellence

Trust lies at the heart of the value we deliver to our customers and the society. Our responsibility to maintain the highest levels of operational excellence, professional integrity and best-in-class quality strengthens our position as a global market leader, and also helps us evolve as market conditions change.



Key Focus Areas

- > Fair business practices
- > Responsible sourcing and manufacturing
- > Product quality, safety and zero harm
- > Packaging
- > Green chemistry
- > Customer satisfaction

Empowering People

We empower our employees to succeed in a safe, diverse and inclusive workplace that treats everyone fairly and with respect. We also seek to employ and develop local talent and offer our employees flexibility, mobility and opportunity within the ABG.



Key Focus Areas

- > Learning and development
- > Employee health and safety
- > Diversity and inclusion

Supporting Environment

We are committed to achieving sustainable growth while minimising the impact of our operations on the environment. We follow a carbon neutrality strategy, seek to use resources efficiently and work to deliver value for the society. We also recognise our role in supporting our customers to improve their environmental performance.



Key Focus Areas

- > GHG emissions
- > Energy efficiency of products and operations
- > Circular economy
- > Water footprint
- > Wastewater disposal and management

Enhancing Community Well-being

We want to create a positive, measurable and lasting impact on the local communities where we operate. We embrace local talent and instil a culture of giving back through projects that are aligned with the UN SDGs and focused on education, empowerment and environmental sustainability.



Key Focus Areas

- > Community engagement
- > Business ethics

Sustainability Roadmap

Our Group-level targets are aimed at prioritising our efforts on the most important areas for delivering long-term value. They are complemented by business-specific metrics, monitoring and reporting to track results across key areas such as safety, energy efficiency and resource efficiency.

Goals and Targets

● Viscose (VSF)



Reduce sulphur release to air by 70% at all fibre sites by FY22



Reduce water intensity by 50% in VSF manufacturing by FY25 over the baseline year of FY15



Reduce LTIFR below 90% over the baseline year of FY15



Assess and improve sustainable performance of key suppliers by FY25



Increase use of alternative feedstock such as pre- and post-consumer waste cellulose



Develop alternative applications to reduce solid waste by 25% by FY30 over FY15



Empower 50,000 women by making them financially independent on chosen vocations by FY30

Goals and Targets

● Chemicals, Fertilisers and Insulators



Safety
Reduce LTIFR below 80% by 2025 (over the base year of FY17)



Water
Reduce specific freshwater consumption of the main product by 30% by FY25 (over the base year of FY17); all units to be ZLD by FY25 and water positive by FY30



Emission
Reduce GHG emission of the main product by 30% by 2030 (over the base year of FY17)



Diversity and Inclusion
Increase woman employees in the management cadre by three times by FY25 (over the base year of FY19)



Employee Engagement
100% of employees to receive code of ethics training; minimum one training day per employee per year



Community Development
100% of our facilities to participate in community engagement

Supporting UN SDGs

Business is increasingly seen as having a key role to play in responding to society's global challenges. The UN SDGs have become the platform for stakeholders to work together to develop solutions on a global stage. Like many companies, we are on a journey to embed the SDGs into our business planning and activities, with a focus on those SDGs that most closely align to the areas where we have the greatest influence and impact.

Sustainable development to us means constantly reorienting our activities and reshaping our product portfolio in such a way that it makes a positive contribution to our society.

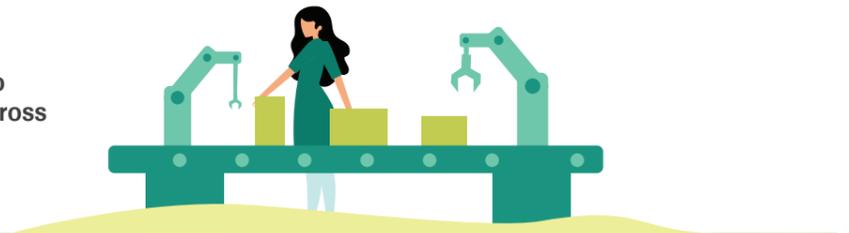
PRODUCTS

Develop Value-Added Products (VAPs) to address the challenging and evolving needs of our customers



PROCESSES

Streamline processes to enhance efficiencies across the value chain



PARTNERSHIPS

Leverage collective resources and drive mutual value propositions with internal and external stakeholders



The SDGs represent a real opportunity for sustainable business growth — promoting new opportunities and partnerships while contributing to societal challenges and protecting the environment.



Our knowledge, products and solutions in the Fertiliser business make us particularly well positioned to help improve agricultural productivity, leading to farmer prosperity. Adequate supply and access to affordable fertilisers directly impacts SDG 1 — No Poverty. Our CSR projects in Sustainable Livelihood and Infrastructure Development (agriculture and farm, animal husbandry, non-farm and skills-based income generation programme, natural resource conservation programme and non-conventional energy) in backward remote rural regions support the No Poverty Goal. We believe is providing employment opportunities to everyone, the textile business is the largest employment provider.



Improved agriculture yields using fertilisers and regular trainings to farmers helps address SDG 2 — Zero Hunger, which targets food security and farmer prosperity. When applied according to best management practices, fertilisers (both mineral and organic) play an important role in providing crops with nutrients needed for a consistent harvest, while the risks of losses and the negative effects of over/under nutrition or misuse of nutrients are minimised. Aditya Birla Textiles provides capacity building for sustainable likelihood of communities.



We have a Chemical Management Programme for safety and storage of chemicals in our facilities. Special attention is paid to labelling requirements and storage of these chemicals at the site. The chemicals are segregated based on an interaction matrix and have a containment dyke to prevent any uncontrolled spillage, in case of leaks. OHSAS 18001 is the foundation of our occupational health and safety programmes at our sites and has resulted in continued improvements in our safety performance.

Ensuring a safe working environment is top priority for us, and we provide health check-ups to our employees and communities around us. As part of our CSR initiatives, we manage and operate hospitals and schools in the communities. We provide an immunisation programme for children as well as a programme on antenatal care, postnatal care and mass immunisation. We also seek to prevent illnesses indirectly by reducing air, water and waste pollution. A strong focus on health, safety and other parameters has also been responsible for a 46% reduction (as compared to FY18) in LTIFR at Grasim sites.



We aim to equip all our employees with the skills and competencies they need to be successful in their jobs. Our internal e-learning portal 'Gyanodaya' supports us in achieving SDG 4 — Quality Education. We run schools and vocational training programmes for the communities around us which include career and capacity building programmes which help empower weaker sections of society.



We value the diversity of our workforce, are committed to promoting equal opportunities and empower all women and girls. We provide 'Springboard', an 18-month training programme to our women employees based on the pillars of training, mentorship and gender diversity. Comprehensive maternity support programmes are also provided to our women employees. We aim to empower 50,000 women by making them financially independent on their chosen vocations by FY30.



Water has emerged as a prominent business and public sector issue in recent years, driven by the lack of access to clean water and sanitation in many geographies. The WBCSD Pledge for Access to Safe Water, Sanitation and Hygiene (WASH) at the workplace demonstrates best practices with respect to WASH as well as contributes towards SDG 6 — Clean Water and Sanitation. We are proud to be signatories to the WASH Pledge and are fully committed to its guiding principles. VSF business has reduced water consumption by more than 50% in the past three years, recording the lowest specific water consumption in the industry. The business plans to reduce water intensity by 50% in VSF manufacturing by FY25 that will help water availability for other purposes.

Our poly-aluminium chloride products, such as the Kanpac series, find application in water treatment and beneficiation, which adsorbs colloids and other impurities present in water. It also restricts the drop in the pH of treated water. In our operations, we contribute to this goal through adoption of the ZLD practice and the WASH pledge. Through our CSR initiatives, we provide access to clean drinking water by building water tanks, borewells and pipelines for communities.



We have set our GHG reduction targets in alignment with SDG 7 — Affordable and Clean Energy.

Our Epoxy, Harihar Pulp and Insulator businesses contribute to the renewable energy and power sector. We are also increasing reliance of renewable energy in our business. Parallely we are working towards energy efficiency measures at all our sites to reduce consumption.



Promoting safe and secure working environments for all employees, SDG 8 — Decent Work and Economic Growth is a key focus area for us. We have implemented an online health and safety data management system and conduct various occupational safety programmes for our employees. We hire employees, and vendor and service providers from within the local communities we operate in. Child or forced labour is strictly prohibited in our operations. We have a strong policy on human rights and fair wages. The WASH Pledge - also looks after safety and health of employees.



We are developing new products/applications and green chemicals to meet the ever increasing demand of our customers. We have also made investments in infrastructure, including digitalisation initiatives such as real-time tracking of material movement and central control towers for vehicle movements. We also have a National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited R&D centres for our Fertilisers and Chemicals businesses.



We continue to support SDG 10 — Reduced Inequalities though our community engagement programmes with farmers on sustainable intensification of agriculture and livelihood. Inclusive growth in the rural communities we operate is integral to us. We are committed to implement programmes aimed at livelihood opportunities, supporting the elderly and differently abled which helps capacity building for weaker sections of society.



With Excel (Iyocell) fibre, we have reached the highest pinnacle in closed-loop production, where more than 99% of the solvent is recovered during the manufacturing process. We are adopting European norms and going beyond regulatory limits.

In our chlor-alkali business, we have started sourcing wash and super wash salt, which has led to reduction in raw material consumption, waste generation and energy consumption, and extension of life of the membrane. We are also promoting circular economy by recycling waste in our VSF businesses.



Energy efficiency and conservation are the cornerstones in our operations. In the reporting year, we invested towards energy conservation equipment and initiatives and consumed 35,929 MWh of renewable energy to actively contribute to this goal. Our products from the Insulators and Epoxy businesses continue to serve the renewable energy sector. We also continue to achieve Perform-Achieve-Trade (PAT) targets under the Government of India's National Mission for Enhanced Energy Efficiency and contribute to climate action. Our fertilisers help farmers fight climate change to address SDG 13 — Climate Action. Healthy soils and plants can better withstand climate stress than those with nutrient deficiencies. Fertilisers can considerably increase crops' resilience to climate change when applied following best management practices. We source from sustainable forests which in turn helps towards increasing forest cover which acts as a carbon sink.



Wood is the most important raw material for viscose production. VSF sources both hardwood and softwood from sustainably managed forests. 100% of the wood is sourced from controlled forests, following internationally renowned standards such as Forest Stewardship Council (FSC®), Sustainable Forestry Initiative (SFI®), Programme for the Endorsement of Forest Certification (PEFC™). Wood varieties such as eucalyptus, spruce, pine, maple, aspen, etc. are the starting materials for dissolving pulp, which, in turn, is used for producing VSF. We also help protect biodiversity by preserving ancient forests.



We believe in good governance, this belief is applied at all levels of the organisation, we are transparent and share our policies and performances of our businesses through sustainability reports, audit reports at our websites. We have also inculcated a strong grievance management system.

VSF has developed a forest to fashion block chain-based traceability solution that helps brands and consumers verify sustainable fibres across the value chain. As per the garment tagging requirement, the value chain needs a source, and this is where the solution by VSF comes in.



Valuable partnerships are an important pillar of our sustainability strategy and are consistently applied across our other sustainability pillars, namely Responsible Sourcing, Responsible Manufacturing, Sustainable Products and Social Responsibility. We also collaborate with institutions, customers and suppliers across the value chain for sustainable practices.

Stakeholder Engagement

Nurturing Relationships Built on Trust

A consistently inclusive, collaborative and responsive approach over the years has resulted in enduring stakeholder relationships that continue to mature. These are fuelling decision-making that is increasingly more attuned to the priorities of the various stakeholder communities. Ultimately, this is what drives our success by creating an atmosphere of trust.

We are committed to constructive dialogue and engagement with our key stakeholders. We believe that open, ongoing and systemic communication is key to building successful relationships with our stakeholders. This also helps us identify their material issues and foresee emerging risks, opportunities and challenges. In doing so, we follow processes that integrate the sustainability mindset in our efforts to recognise, prioritise and manage stakeholder expectations.

Our range of internal and external stakeholders is diverse. We engage with them through a variety of mechanisms, including direct dialogue, surveys, engagement at professional and industry forums, and sharing of information through various means and channels. The frequency and nature of this engagement are designed to proactively enable reliable and transparent flow of information on key issues.



Using Outcomes of Stakeholder Dialogue

Stakeholder input is especially important in developing, implementing and continuously improving our sustainability policies and commitments. We interact regularly with our stakeholders, the outcomes of which help us identify gaps and opportunities for our businesses at the global and local levels. This analysis then feeds into our action plans for the relevant areas.

Stakeholder Groups	Key Areas of Interest	Methods of Engagement	Typical Frequency of Engagement	Outcomes
Employees	<ul style="list-style-type: none"> - Business performance - Health and safety - Learning and development - Employee relationships - Career growth - Work-life balance - Human and labour rights 	<ul style="list-style-type: none"> - Team meetings - Employee satisfaction survey - Employee newsletters - Townhall meetings - Annual performance reviews - Forums - One-to-one meetings/briefings - Portal/intranet - Family get-togethers 	Ongoing	<p>Improving engagement and communication with employees. Grasim is a responsible employer, promoting collaborative working, diversity and well-being at work.</p> <p>With dedicated programmes, Grasim offers tremendous opportunities to fast-track career growth.</p>

Stakeholder Groups	Key Areas of Interest	Methods of Engagement	Typical Frequency of Engagement	Outcomes
Customers and Value Chain Partners	<ul style="list-style-type: none"> - Customer relations and contracts - Quality and delivery - Health and safety - Sustainable products - Product innovations - Grievance redressal - Proactive communication - After-sales support - Timely project delivery - Anti-corruption and ethical behaviour 	<ul style="list-style-type: none"> - Customer satisfaction surveys - In-person meetings/letters - Social media - Company and corporate websites - Product information on packaging - Customer relationship development - Customer conferences 	Ongoing	Maintaining continuous strong relationships with our customers, ensuring we listen to their needs and deliver sustainable and innovative products and solutions
Suppliers	<ul style="list-style-type: none"> - Quality and delivery - Health and safety - Contract performance - Local impacts - Human rights - Long-term association - Creating a win-win situation 	<ul style="list-style-type: none"> - Supplier surveys - Contractual meetings - Tender quotations - Information requests 	Ongoing	Maximising opportunities for us and our suppliers throughout our value chain, ensuring sustainability is integrated into our procurement decisions
Government and Regulators	<ul style="list-style-type: none"> - Compliance and taxes - Timely responses to queries - Potential local impact - Health and safety - Environment and climate - Corporate governance 	<ul style="list-style-type: none"> - Briefings and direct meetings - Multi-stakeholder forums - Industry associations 	Continuous basis	Continued improvement in our sustainability performance and compliance standards in line with regulations relevant to our activities
Local Communities	<ul style="list-style-type: none"> - Community issues - Potential local impact - Sustainability 	<ul style="list-style-type: none"> - One-to-one meetings - Site tours - Participation in local events - Corporate Social Responsibility (CSR) 	Ongoing	Creating strong partnerships with local communities, offering opportunities to engage with employees, supporting our supply chain and maintaining our social license
Shareholders, Investors and Lenders	<ul style="list-style-type: none"> - Business performance - Corporate governance and risk management - Return on investment - Employee relationships - Sustainability - Consistent disclosure on economic, social and environmental performance 	<ul style="list-style-type: none"> - Annual General Meeting - Annual Reports - One-to-one meetings and quarterly conference calls - Investor conferences, roadshows and plant visits - Rating agency notes 	Ongoing	Disclosing sustainability KPIs and integrating financial and non-financial factors to provide high-value information and generate significant long-term value to investors and shareholders through continuous business and profit growth
Media	<ul style="list-style-type: none"> - Business performance - Health and safety - Employee relationships - Environment and climate - Product innovation - Corporate governance 	<ul style="list-style-type: none"> - Media surveys - Interviews - Media briefings - Press releases - Social media 	Ongoing	Improving the understanding of the industry's positive impact on sustainability and climate change and the drivers for further development
NGOs and Other Groups	<ul style="list-style-type: none"> - Eco-efficiency - Environment and climate - Human and labour rights 	<ul style="list-style-type: none"> - One-to-one meetings - Presentations - Participation in events 	Need-based	Providing additional stakeholder insight into emerging and established sustainability topics

Materiality

Prioritising Issues Material to Sustainability

As a responsible business, we identify and address the issues critical to achieving long-term success. This materiality assessment is carried out in accordance with our sustainability framework.



The foundation of building a sustainable business lies in its accountability to stakeholders and a continuous process of working in synergy towards a long-term strategy. While there may be multiple focus areas for the organisation, a prioritisation of these with the stakeholders helps utilise resources optimally and unlock long-term value. Together with our key stakeholders, we have undertaken a materiality assessment. Such an assessment helps us define our sustainability goals and their alignment with our business aspirations, stakeholder expectations and global development agenda.

Material issues are those that have a direct or indirect impact on our ability to create, protect or deplete economic, environmental and social value for our business, stakeholders and the society. The core process involves identification, prioritisation and validation of material topics.

Materiality Process



Identification

Define material topics based on the impact on business. For each of the identified issues, we evaluated various external factors and assessed the impact they have on our business after discussion with the leadership and sustainability teams



Prioritisation

Evaluate importance to stakeholders based on the discussions with them. Also, external requirements such as compliance and international standards are assigned equal importance



Validation

The material topics shortlisted were validated with key internal audiences to arrive at material topics for the business

The assessment helps streamline our process, define our goals and align them with our business objectives as well as with global sustainable development priorities. It also ensures focus on aspects that stand at the intersection of expectations of our stakeholders and our business goals.

We believe our diversified business model by segment, geography and customer makes us resilient to changes in the external environment and enables us to derive the benefits of Group synergy. Further, the material issues vary with each business.



Report

The material topics are mapped to the relevant GRI Standards indicators and their progress is disclosed

Material Issues

Aspects	Scope	Why is it Material?	How do we Measure and Monitor it (KPIs)?	Boundary
Sustainable Products	<ul style="list-style-type: none"> - Innovation - Product stewardship - Environmental compliance 	Following the principles of green chemistry, we are designing our products and processes with the objective of reducing or eliminating the generation of hazardous waste. We are innovating processes, technology and products to meet evolving market, regulatory and societal demands.	<ul style="list-style-type: none"> - New products launched - Number of patents - Number of customers serviced - Certification 	Internal and external
Environment	<ul style="list-style-type: none"> - Energy - GHG emissions - Water - Waste and effluents 	We are an energy-intensive business. We implement several initiatives and use technologies to conserve energy and be more energy efficient. To minimise the impact of our business operations on the environment, we comply with all norms and regulations. Water is the most essential resource for our operations. Our units are implementing new strategies to save water and ensure minimal impact of business operations on the availability of the natural resource.	<ul style="list-style-type: none"> - Total water consumption - Total energy consumption - GHG emission - Waste generated - Freshwater withdrawn and recycled 	Internal and external
Customers and Suppliers	<ul style="list-style-type: none"> - Sustainable procurement - Customer engagement - Product consistency 	Working closely with our suppliers, we do our bit in lowering our environmental and social impact. Most of the environmental impact associated with the manufacturing sector is embedded in supply chains. We continue to make efforts to identify critical issues across the whole supply chain and understand the linkage between our supply chain sustainability goals and the global sustainability agenda. We engage with suppliers to ensure that they uphold all environmental and ethical standards.	<ul style="list-style-type: none"> - Customer/supplier health and safety - Customer consistent quality 	Internal and external
People	<ul style="list-style-type: none"> - Employee benefits - Training and education - Diversity and inclusion - Occupational Health and Safety (OHS) 	We focus on the overall well-being of our employees, providing them with a fulfilling, lifelong career, regular recognition and robust feedback, and a grievance mechanism. OHS has a strong focus on primary prevention of hazards at workplaces. Considering the nature of our businesses, we have stringent rules and policies regarding OHS.	<ul style="list-style-type: none"> - Employee distribution – age, gender - Employee attrition - Employee engagement - Number of grievances reported 	Internal
Communities	<ul style="list-style-type: none"> - Direct and indirect investments for the society - Impact of community investments 	Upliftment and protection of interests of communities in and around our areas of operations is one of our focus areas. We follow a structured approach to give back to the society. We are making incessant efforts in the domains of education, healthcare, sustainable living, development of rural infrastructure, etc.	<ul style="list-style-type: none"> - Community investments - Number of community programmes/initiatives undertaken 	Internal and external
Economic Performance	<ul style="list-style-type: none"> - Economic value generated and distributed - Sustainable business and client value - Governance and risks 	For an organisation to grow, consistent financial results and liquidity are crucial. A good economic performance will ensure improved offerings for our consumers, diversification of our portfolio, better returns for our investors and capacity building for our people.	<ul style="list-style-type: none"> - Financial performance - Client satisfaction 	Internal and external

Material Topics by Business

Material Topics for VSF	Relevant UN SDGs	Boundary	GRI Indicators
Responsible Wood Sourcing	SDG 15	Within and outside the organisation	GRI 103
Closed-loop Manufacturing	SDG 12	Within the organisation	Not applicable
Occupational Health and Safety	SDG 3	Within the organisation	GRI 403-2
Water Footprint	SDG 6	Within and outside the organisation	GRI 303-1
GHG Reduction	SDG 7, SDG 13	Within and outside the organisation	GRI 302-1, GRI 305-1, 2
Chemical Management	SDG 3, SDG 12	Within and outside the organisation	GRI 306-1
Transparency and Traceability	SDG 16, SDG 17	Within and outside the organisation	Not applicable
Valuable Partnership	SDG 17	Within and outside the organisation	GRI 413-1
Circular Economy	SDG 14, SDG 15	Within the organisation	Not applicable
Gender Equality	SDG 5	Within the organisation	Not applicable
Talent Management	SDG 8	Within the organisation	GRI 401-1, GRI 404-1

Material Topics for Chemicals	Relevant UN SDGs	Boundary	GRI Indicators
Occupational Health and Safety	SDG 3	Within the organisation	GRI 403-2
Chlorine and Hazardous Chemical Management	SDG 3, SDG 12	Within and outside the organisation	GRI 306-1
Energy Management (including Renewable Energy and GHG Reduction)	SDG 7, SDG 12, SDG 13	Within and outside the organisation	GRI 302-1, 2, 3, 4, 5 GRI 305-1, 2, 3, 4, 5, 6, 7
Water Management	SDG 6	Within and outside the organisation	GRI 303-1
Effluent & Waste Management	SDG 6, SDG 12	Within and outside the organisation	GRI 306 – 1, 2, 3, 4, 5
Air Emission	SDG 12, SDG 13	Within and outside the organisation	GRI 305 – 5, 6, 7
Community Initiatives	SDG 8, SDG 11	Outside the organisation	GRI 413-1, 2
Diversity and Equal Opportunity	SDG 5, SDG 10	Within the organisation	GRI 405-1, 2
Talent Management	SDG 8	Within the organisation	GRI 401-1, GRI 404-1
Supply Chain Sustainability (including Strategic Raw Materials Management) and Valuable Partnership	SDG 8, SDG 12, SDG 16, SDG 17	Within and outside the organisation	GRI 102-9, 13, GRI 204-1
Green Chemistry and Innovation	SDG 8, SDG 9	Within the organisation	GRI 302-5
Climate Change	SDG 7, SDG 12, SDG 13	Within and outside the organisation	GRI 201-2

Material Topics for Textiles	Relevant UN SDGs	Boundary	GRI Indicators
Sustainable Procurement	SDG 8, SDG 9, SDG 12	Within and outside the organisation	GRI 102-9, 13, GRI 204-1
Human Rights / Fair Wages / Grievance	SDG 16	Within and outside the organisation	GRI 102-17, 29, 44
Waste Management	SDG 6, SDG 12	Within and outside the organisation	GRI 306-1, 2
Energy / GHG / Climate Change	SDG 7, SDG 12, SDG 13	Within and outside the organisation	GRI 201-2; GRI 302-1,2,3,4; GRI 305-1, 2,4
Talent Management	SDG 8	Within the organisation	GRI 401-1; GRI 404-1
Regulatory/Transparency/Governance	SDG 10, SDG 16, SDG 17	Within the organisation	GRI 102-13,18, 19, 20, 22-39; GRI 405-1



Governance

Accountability Drives Performance

Responsible governance and integrity are two important values that underpin our business. These are integral to our vision to be among the world's most trusted and successful companies.

We hold ourselves to the highest standards of ethical behaviour and transparency. With every action, procedure and policy, we aim to deliver on our promise of accountability to all our stakeholders. Our Board of Directors (the Board) actively engages with our management team to ensure we have the right strategy, governance, talent and risk management to continue to create long-term value.

Our governance philosophy rests on five basic tenets:

- > The Board's accountability to the Company and its key stakeholders
- > Equitable treatment to all shareholders
- > Strategic guidance and effective monitoring by the Board
- > Protection of minority interests and rights
- > Transparency and timely disclosure



Mr. Kumar Mangalam Birla
Chairman



Mr. Dilip Gaur
Managing Director



Mrs. Rajashree Birla
Non-executive Director



Mr. Sushil Agarwal*
Whole-time Director
* up to 30th June 2019



Mr. Himanshu Kapania*
Vice Chairman

* Ceased to be a Director and Vice Chairman w.e.f. closing of business hours on 31st December 2019



Mr. Shailendra K. Jain
Non-executive Director

Board Committees

- > Audit Committee
- > Risk Management Committee
- > Stakeholder's Relationship Committee
- > Corporate Social Responsibility Committee
- > Nomination and Remuneration Committee
- > Finance Committee
- > Birla Laos Divestment Committee
- > Chlor-alkali Business Acquisition Committee
- > Suktas India Business Acquisition Committee
- > Merger Committee



Ms. Usha Sangwan
Non-executive Director



Mr. O. P. Rungta
Independent Director



Mr. N. Mohanraj#
Independent Director
w.e.f. 12th July 2019



Mr. Cyril Shroff
Independent Director



Mr. Arun Thiagarajan
Independent Director



Mr. B. V. Bhargava*
Independent Director
* up to 23rd August 2019



Dr. Thomas M. Connelly Jr.
Independent Director



Ms. Anita Ramachandran
Independent Director



Mr. M. L. Apte*
Independent Director
* up to 23rd August 2019

Policies and Standards

The policies for our businesses are framed while holding our Group policies, values and principles in high esteem. We empower our employees to learn, understand and apply improvement techniques to perform to standards that are the industry's best and beyond.

These policies are available on the website at <https://www.grasim.com/investors/policies-and-code-of-conduct>.

Sustainable Governance

Grasim's Environmental, Social and Governance (ESG) performance is an important driver of stakeholder trust and therefore, extremely important to us as an organisation. Our comprehensive governance framework for sustainable development reflects this understanding. It extends from the Board of Directors through to the executive and senior management to all the working levels in each of our business units.

The organisation ensures ethical leadership at the Board and management levels through various committees. The Board-level CSR Committee and the Sustainability Council have their responsibilities clearly defined. They ensure good governance on the economic, environmental and social aspects of the business across the organisation.

Sustainability Committees led by Business Leaders, CEO / Deputy CEO are responsible for the overall integration of the sustainability framework across business operations. On the other hand, Sustainability and Safety Committee led by Site Managers ensures that the framework is implemented on the ground.



The ABG Sustainable Business Framework is a strong platform of support for our management systems and processes. It helps us evolve a unified approach to our conduct and governance that is crucial for Group success and sets the groundwork for the changes we need to make at the Group, business and local site levels.

Charters and Coalitions

Grasim has been actively involved and collaborated with several industry and government associations in India as well as with global organisations and institutes to bring about a positive impact on the business ecosystem at large. The Company aims to gain from mutual learning and facilitate dialogue for a common cause. Here are some of Grasim's prestigious associations:

- > Federation of Indian Chambers of Commerce and Industry (FICCI)
- > Associated Chambers of Commerce and Industry of India (ASSOCHAM)
- > Confederation of Indian Textile Industry (CITI)
- > Association of Man-Made Fibre Industry of India (AMFII)
- > National Safety Council (NSC)
- > The Synthetics Rayon & Textile Export Promotion Council (SRTEPC)
- > Federation of Indian Export Organisation (FIEO)
- > Indian Merchant Chambers (IMC)
- > Alkali Manufacturing Association of India (AMAI)
- > Indian Chemical Council (ICC)
- > Sustainable Apparel Coalition (SAC)
- > Zero Discharge of Hazardous Chemicals (ZDHC)
- > Canopy Planet Society
- > Textile Exchange
- > Forest Stewardship Council (FSC®)
- > Sustainable Forestry Initiative (SFI®)
- > Programme for the Endorsement of Forest Certification (PEFC™)
- > World Business Council for Sustainable Development (WBCSD)

Risk Management Mitigating Risks, Improving Performance

Risk management at Grasim is comprehensive in scope and proactive in approach. It has helped us, stay ahead of market changes and fulfil stakeholder expectations. It has enabled us to achieve our strategic and operational goals, especially when facing uncertainty. We recognise the need to maintain a sense of responsibility and balance towards leveraging opportunities in the face of risks.

We continue to refine our policies towards management of risks by recognising the changes resulting within a rapidly evolving world. We ensure that our decision-making is in service of the long-term business objectives of the organisation as well as the Group.

The diversified nature of our businesses and wide coverage of operations necessitates a holistic approach towards risk management that focuses on critical areas such as energy mix and efficiency; water management; reuse, recycle and disposal of wastes; air emission; safety practices; supply chain initiatives; people processes; socio-economic development of the surrounding communities; etc. We have adopted an enterprise-wide approach to risk management.

Our risk management framework is made robust by enabling a thorough assessment of all possible risks to be undertaken before any transactions take place. Regular reviews, measures of control and monitoring, as well as self-assessment mechanisms of key risk indicators are the main elements of this framework.

Objectives of the Risk Management Framework

- > Identifying and evaluating risks
- > Setting acceptable risk limits
- > Monitoring risk management actions and controls
- > Assessing the effectiveness of risk management

Risk	Description	Mitigation Plan
 Availability of Natural Resources Based Inputs	The availability of water could be a risk in medium to long term time frame given the rising demand of water due to an increasing population and impact of climate change	<ul style="list-style-type: none"> - Continuous reduction in freshwater consumption - Water recycling and ZLD - Creating new reservoirs closer to plant location
 Commodity Price Volatility	High volatility in global prices and demand	VSF <ul style="list-style-type: none"> - Exploring new markets and improving penetration in existing markets - Creating demand through consumer and trade - Promoting education and increasing awareness through branding and communication - Continuous customer engagement - Increasing the specialty products portfolio - Continuous focus on R&D and application development / new product development - Focus on cost reduction and higher efficiency on a continuous basis Epoxy <ul style="list-style-type: none"> - Long-term volume with index-linked price contract with bulk manufacturers

Risk	Description	Mitigation Plan
Cheap Imports 	Dumping of products by overseas players / rising imports in India leading to oversupply / supply at uncompetitive rates	<ul style="list-style-type: none"> - Focus on cost competitiveness, improving quality and customer service Other than these, trade measures taken include: <ul style="list-style-type: none"> VSF - Anti-Dumping Duty (ADD) imposed in respect of imports from China and Indonesia and is valid till 2021 Chemicals - Exploring export of caustic flakes to Vietnam and other countries - Ensuring protection of our products by making applications to relevant authorities, including industry associations VFY - Optimising product mix in view of imports and developing branding of VFY to counter the imports from China - Pursuing legal case in the high court on discontinuation of ADD and filing application for re-imposition of ADD on imports from China Textiles - Application for ADD to Directorate General of Trade Remedies (DGTR)
Human Resources Risk 	Attrition and non-availability of the required talent can affect the performance of the Company	<ul style="list-style-type: none"> - Continuous benchmarking of the best HR practices across the industry and carrying out necessary improvements to attract and retain the best talent - Regular reviewing, monitoring and engagement on personal development plans of high performers and high-potential employees - Undertaking proactive action to strengthen technical and other functional bench strength - Focusing on talent development
Competition Risk 	VSF and Chemicals are global commodities; therefore, they are exposed to changes in the competition intensity in the global market space. With expanding capacity of exiting players and emergence of new entrants, competition is a sustained risk for the Cement business	<ul style="list-style-type: none"> - Undertaking continuous efforts to enhance the brand image of the Company by focusing on R&D, quality, cost, timely delivery and customer service - Increasing the level of customer engagement - Engaging in customer connect initiatives to reach out to end users (such as the Liva brand for VSF) - Undertaking strategic initiatives to enhance brand equity through marketing activities; focusing on improving the product portfolio and value-added services
Information Technology / Cyber Security Risk 	Risks related to information technology systems, data integrity and data security	<ul style="list-style-type: none"> - Ensuring information security policy is in place at the Group level and implementation is being adhered - Using back-up procedures and storing information at two different locations. Systems are upgraded regularly with the latest security standards. For critical applications, security policies and procedures are updated on a periodic basis and users are educated on adherence to the policies to eliminate data leakages - Ensuring end user awareness (E-Learning Module and Classroom Programme) - Brand protection for the keyword 'Grasim' - Ensuring Disaster Recovery System is in place
Other Regulatory Risks 	Any default can attract penal provisions and may impact the Company's reputation	<ul style="list-style-type: none"> - Ensuring adherence to current norms - Upgrading technology/equipment on a continuous basis - Continuous monitoring of regulatory changes to ensure compliance with all applicable statutes and regulations - Implementing ZLD in Chemicals — Nagda and Renukoot units.

Risk	Description	Mitigation Plan
Industrial Safety, Employee Health and Safety Risk 	The manufacturing businesses are labour-intensive and are exposed to health and injury risks due to machinery breakdown, human negligence, etc. The Chemicals business has exposure to risks arising from the production and handling of hazardous chemicals	<ul style="list-style-type: none"> - At Grasim, we endeavour to build a culture of safety and strengthen our Safety Management System in the Chemicals and Cement businesses. For this purpose, we adopted DuPont's best practices in workplace safety and process safety management - Developing and implementing critical safety standards across the units and project sites, establishing processes for training need identification at each level of employee, introducing 'Life Saving Rules' - Continuous focus on building safety culture across units covering the entire workforce - Ensuring adequate insurance coverage
Community Risk 	Increased societal/NGO activism could impact operations	<ul style="list-style-type: none"> - The community engagement programmes, the grievance management procedures, and a series of CSR programmes are put in place to improve our relations with the communities and for partnering with them for supply of materials and services - Health management programmes and periodic monitoring are in place around the community. At the same time, the best available technologies are being installed at all sites and plants to minimise the impact of operations as a preventive measure
Climate Risk 	To achieve the central goal of the Paris Agreement of holding the global average temperature rise to as close as possible to 1.5 degrees Celsius, GHG emissions must be reduced 45% by 2030. This entails a massive shift in the global energy system and considering the radical policy, we expect stringent regulations relating to GHG emissions	We understand that climate change and extreme weather events will be disruptive to our businesses and impact our operations, markets and supply chains. Concurrently, many opportunities exist to reduce risk exposure by developing and manufacturing new products and solutions to enable climate change adaptation and mitigation across our businesses. At the same time, we are investing in energy efficiency measures

Operating Environment

Responding to Trends, Reshaping Our Industries

We operate in a dynamic business environment. Our ability to continue creating value is thus a direct function of how effectively we respond to the existing and emerging opportunities while minimising the related risks. Although we think long term while devising our strategies, we have flexibility built in to make short-term adjustments for unanticipated developments.

Manufacturing Excellence

Changing Demand and Supply Dynamics

The fashion industry is moving towards shorter product cycles and quicker launches. Also, there has been a movement from high volume, low mix to low volume, high mix in terms of the product portfolio that brands have to offer.

Evolving Technology

Robotics, nanotechnology, AI and Internet of Things (IoT) are ushering in automation and efficiency in production as well as increasing scale in advanced materials.

Rising Limitations in Factors of Production

Scarcity of skilled labour and the resultant rise in wage costs is continuing to increase production costs.

Strong Emphasis on Sustainability

Growing population and changes in lifestyle require development of new technologies to optimise the use of resources (water, materials and energy).



Circular Fashion

Circular fashion, like circular economy, seeks to reduce waste to a minimum and keep the materials within the consumption and production circle for a longer period. When clothes are no longer used, they are either sold for second-hand use or recycled. For this to be possible, products need to be designed to have multiple lifecycles, manufactured with recyclable materials that conform to the proposed use and design suitable for disassembly. Researchers and businesses are testing ways to cut fabrics to produce less waste or use fabrics that require fewer seams to facilitate recycling.



Raising Consumer Awareness

Research shows that consumers, in general, prefer environmentally responsible fashion. However, that's not always reflected in their behaviour. A number of factors drive consumers away from sustainable fashion, including higher prices and the belief that recycled clothes may be of a lower quality and that they are produced in less polished styles. Consumers could be educated to buy only what they need and to choose more sustainable options through awareness campaigns or by providing information on sustainability in stores or through tags on clothes.



Demand for Sustainable Solutions

In many countries around the world, the middle class, on average, is growing at a higher pace than the global average, leading to an increased demand for lifestyle products. However, consumer awareness about the limited availability of natural resources, the environmental impacts of products, and social responsibility is growing, which is prompting brand owners to pay more heed to product and supply chain efficiency. Backed by policies, regulations and incentives, these trends are driving customers towards renewable raw materials and recycling of products and materials.



Increased Transparency and Environmental Labelling

Some companies already provide consumers with information on the environmental footprint of their products, such as CO₂ emissions or water use. Choosing a more sustainable option could be made easier through clear and standardised labelling of environmentally friendly products.



Supply Chain Optimisation

With customers increasingly demanding faster delivery, improving supply chain efficiency is key to reducing lead time. That's why, many companies are taking the entire process 'in-house', such as materials sourcing, creative and technical design, production and shipping. The process is being further spruced up by making data accessible to all teams in real time.



Growth of Omnichannel

Online and mobile sales channels continue to gain momentum. Driven by technological advancements, these channels provide a personalised customer experience by offering choices based on customer search history. Global fashion houses are prioritising investments in developing omnichannel capabilities to drive sales growth.



Grasim Proposition

- > Grasim's integrated business model – from procurement to distribution, backed by the best available technology – positions the Company well to capitalise on emerging opportunities.
- > Our commitment to maintaining the highest levels of operational excellence, professional integrity and best-in-class quality solidifies our market leadership.
- > We empower our employees to succeed in a safe, diverse and inclusive workplace that treats everyone fairly and with respect. We also seek to employ and develop local talent and offer our employees flexibility, mobility and opportunity within the Group.

We are committed to minimising our environmental footprint and support our customers in improving their environmental performance. By adopting carbon neutrality, we seek to use resources efficiently and create sustainable value for the society.

Responsible Employer Promoting Talent, Advancing Well-being

At Grasim, we recognise the crucial role our talent pool plays in our success. We provide training and career advancement opportunities, reward fairly and encourage direct feedback to senior management in a supportive and meritocratic work environment that emphasises employee well-being and promotes a healthy work-life balance.



Employee Engagement

Employees are one of our key stakeholder groups. Happy, healthy and engaged employees are crucial to our sustainability objectives. Our employee engagement survey serves as a catalyst and enables them to voice opinions and provide feedback to the management. This allows managers to undertake any actions to improve the performance of their teams. Every employee undergoes regular, formal performance and career development reviews, and we encourage managers to have frequent informal developmental conversations with their team members.

Employee Satisfaction Survey

Our Vibes survey, conducted biennially, provides an opportunity to every employee to share their workplace experience. The employee satisfaction survey was conducted in the manufacturing division to understand performance drivers and perspectives on the work culture and environment. We analysed the survey findings and set in motion an action plan, especially for the areas that were found lagging, along with monitoring mechanisms that clearly defined roles and responsibilities.

Internal Recruitment System

Our employees are encouraged to pursue mutually beneficial career movements. True to our 'Employee First' philosophy, internal talent is provided the first right to apply for any open position, and vacancies across locations are first posted on the internal careers portal. During the past three years, we have facilitated a significant number of inter- and intra-business movements across all levels.

Gender Diversity

Traditionally, women have had lower participation in the total workforce of the manufacturing sector. To make our workforce more gender diverse, we have developed several women-friendly initiatives such as 'Springboard'. It is an 18-month programme with emphasis on training and mentorship, focusing on high-calibre women leaders. In addition, we have several other initiatives to encourage diversity.

Unit Leadership Programme

This unique programme is designed in partnership with the Pulp & Fibre, Cement and Chemicals businesses, echoing the spirit of OneABG. The programme is for the unit and function heads of plants for developing leadership competencies such as innovation, risk-taking and agility.

Learning and Development

We are committed to providing our employees with opportunities, experience and training to grow their knowledge, skills and capabilities and realise their full potential. Individual aspirations are catalysed by encouraging employees to work with their line managers to devise personal development plans, in alignment with Grasim's objectives.

Our training initiatives enable our people to develop personal skills, think strategically, support managers in team development, assist those in charge of key operations, and improve procedures and processes. Training needs are rigorously identified and delivered through internal and external workshops as well as online modules. This is included in the Company's training calendar and helps us systematically improve the quality of our workforce.

E-learning

The Aditya Birla Group has launched the Gyanodaya Virtual Campus (GVC), its e-learning platform, a few years back to make interactive training modules accessible to employees, anytime and anywhere. The GVC extensively uses virtual classrooms, gaming, videos, podcasts and simulations, among other formats, keeping up with the rapidly changing learning needs. It offers 500+ modules on sustainability, finance, safety, operations and general management from leading content providers such as the Harvard Business School.

Functional trainings and mentoring by business divisions are provided under the 'Leaders in Residence' programme of GVC, combining classroom sessions and e-learning. GVC also offers an 'OUTREACH' programme designed for a specific group of employees/businesses.

Core Managerial Skills Programme

The Core Managerial Skills programme is designed exclusively for department heads. The programme intends to make department heads more effective in their existing roles by offering the requisite managerial skill sets and perspectives.

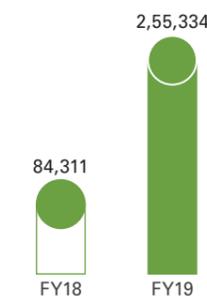


Key Modules of the Core Managerial Skills Programme

- > Perspective building in leadership style through Situation Leadership and Managerial Grid
- > Building executive presence through presentation skills, confidence building and personal presence
- > Commercial acumen for manufacturing roles
- > Skill building for people and team management

Total No. of Training Hours

Permanent Employees



Human Rights

We adhere to the Group policy on Human Rights, in line with the principles ascribed in the UN Global Compact. Our policies on zero discrimination and sexual harassment, and code of conduct for ethical behaviour are strictly implemented. The policies include the requirements for respecting labour rights and complying with the regulatory requirements for the workers at the locations.

Social Initiatives

Driving Inclusive Growth Agenda

As part of the ABG, we believe in directing resources to help people improve their lives. We consider the community around our operations as key stakeholders and believe in promoting inclusive growth. Through our engagement programmes, we understand the community's expectations of better health and hygiene facilities, more local employment opportunities, better educational and infrastructural amenities, etc.



CSR VISION

TO ACTIVELY CONTRIBUTE TO THE SOCIAL AND ECONOMIC DEVELOPMENT OF THE COMMUNITIES IN WHICH WE OPERATE IN LINE WITH THE UN SDGs. IN DOING SO, BUILD A BETTER, SUSTAINABLE WAY OF LIFE FOR THE WEAKER AND MARGINALISED SECTIONS OF SOCIETY AND RAISE THE COUNTRY'S HUMAN DEVELOPMENT INDEX.

"The societal challenges we are facing require a pace of change and innovation that can only be achieved by working together across sectors and industries. Our motivation to engage and collaborate goes beyond economic, social and environmental responsibility. We want to create lasting value for all our stakeholders by building partnerships across the value chain."

Mrs. Rajashree Birla
Chairperson — Aditya Birla Centre for Community Initiatives and Rural Development

Our CSR work is being carried out under the aegis of the Aditya Birla Centre for Community Initiatives and Rural Development, with Mrs. Rajashree Birla as the Chairperson. The Centre provides strategic direction and identifies the thrust areas for our work, ensuring performance management as well.

Key Pillars

- > Education
- > Healthcare
- > Sustainable Livelihood
- > Infrastructure Development
- > Water

During FY19, we invested ₹47.14 crore on CSR activities, mainly on education, healthcare, environment and livelihood, rural development projects, social empowerment, etc.



Education

SDG 4 — Providing inclusive and equitable quality education, and lifelong learning opportunities for all

Education is a great leveller. It empowers everyone to lead a decent life. Education helps in the holistic socio-economic development of an individual, which in turn contributes to the nation's progress. Through the schools in and around our facilities, we provide quality education, scholarships, technical and vocational education to children.



21,253

Children benefitted by education materials





Social

SDG 5 – Women empowerment and gender equality

Women, especially from the marginalised sections in rural areas, act as the backbone of their households and communities. Through our development programmes, we help them achieve financial independence and contribute to their family income. We engage with Self Help Groups (SHGs) to empower households financially and socially. Key training is provided to SHGs in goat farming, dairy, loom weaving, sutli weaving, tailoring and blanket weaving, among others.



Today, 122 SHGs are operational, comprising 3,229 women. We are working to broaden the base. Most of the SHGs have been linked with economic centres. Women are engaged in several economic activities such as tailoring, masala making and creating traditional pieces for celebrations. In the context of employment, we conduct vocational training and skills training, along with our farm-based programmes and SHGs. Our activities also include computer training, heavy vehicle driving and bag making, among others. Over 3,418 people have been trained so far.

122

Operational SHGs



Sustainable Livelihoods



SDG 1 – No Poverty and SDG 2 – Zero Hunger

Our aim is to achieve food security and improved nutrition, and promote sustainable agriculture. We familiarise farmers with innovative cropping techniques involving sustainable practices, resulting in higher returns through better yields.

The farm-based interventions, farmer training programmes, farmer producer groups, improved agriculture techniques and animal husbandry management take us closer to the goal of sustainable agriculture. Our farmer meetings aimed at knowledge sharing on farm-related activities, boosting agriculture and horticulture, and training programmes that profess the best-in-class agricultural practices and mechanism have touched the lives of 6,059 farmers.

Furthermore, farmers from Veraval and Rehla were taken for field visits to the Krishi Vigyan Kendras in Gujarat and Jharkhand to attune them to the latest cropping patterns. We help small farmers by giving them exposure to demonstration plots in waste lands where the farming inputs are minimal.

We maintain 100 biogas plants at Nagda and Rehla and sponsor plantations alongside roads, wastelands and farm boundaries in support of the green movement.

This year, 26,932 animals were immunised in veterinary camps and a large number were artificially inseminated for better breed. This has raised the milk output and consequently, there has been a surge in income of the farmers. BAIF Development Research Foundation has been our project partner in the cattle breeding project, which has benefitted 7,800 cattle owners.

6,059

Farmer lives impacted through farm-related activities



Healthcare



SDG 3 – Good Health and Well-being

We are committed to providing quality healthcare facilities to the communities around our manufacturing locations, with special focus on maternal and child health as well as clean drinking water and sanitation. Nearly 6 lakh people across our units have benefitted from the projects.

In 1,160 rural medical and awareness campuses, we conducted health check-ups of 91,105 people for ailments such as malaria, diarrhoea, diabetes, hepatitis, arthritis, skin diseases, gynaecological disorders and cardiac issues. Our rural mobile medical van services complemented these efforts.

One of the major concerns is that even where we are working, more than 70% of women, including adolescent girls, are anaemic. We aim to bring the number down to below 20%, with the support of the district authorities.

Splendid patient care is accorded at the Company's six hospitals at Kharach and Veraval in Gujarat, SFD Nagda (Madhya Pradesh), Rehla (Jharkhand) and Harihar (Karnataka); 2,81,323 patients were treated.

At mega eye camps, we treated 11,538 people and performed 1,933 intraocular operations.

Dental and health check-up camps are carried out regularly in schools at our units. These include Kharach and Veraval in Gujarat. Our teams examined 4,797 students on their dental hygiene and also conducted eye check-ups for them.

In collaboration with the district health department, our Mother and Child Healthcare Project served 6,748 women (antenatal and post-natal care, mass immunisation, nutrition and escort services for institutional delivery). Across the Company's units, 87,537 children were immunised against polio, BCG, DPT and Hepatitis B.

Our intensive motivational drive towards responsible family raising led to 713 villagers opting for planned families.

At blood donation camps, we garnered 251 units in Ganjam (Orissa) and Rishra (West Bengal). Several of our colleagues were among the donors.

We organised the 'Swachhata Hi Seva' week at Kharach, Nagda, (SFD and Chemical) Harihar, Malanpur, Veraval, Jagdishpur and Halol. Our objective was to promote hygienic habits. Over 400 awareness programmes were conducted on sanitation. We involved villagers in constructing sanitation blocks through sweat equity. We distributed sanitation kits, dustbins and an innovative game based on the snakes and ladders concept; 44,770 people were involved. De-addiction

and health awareness camps, and thalassemia testing camps were held at Harihar, Vilayat, Veraval, Renukoot, Ganjam and Jagdishpur. These camps benefitted 4,081 people.

We organised HIV/AIDS awareness and on-spot testing at SFD Nagda, Veraval, Malanpur, Rehla and Rishra, reaching out to 6,314 beneficiaries. Artificial limb implant camps at Jagdishpur and Veraval enabled 1,069 people get back on their feet.

Under the Leprosy Treatment Programme, we reached out to 97 patients at Jagdishpur and Rishra. At 66 camps set up to fight malnutrition, 759 children were identified as under-nourished. They were treated at our units in Kharach, Vilayat, Malanpur and Veraval.

At 12 blood group testing camps, we registered 2,025 participants. Harihar and Jagdishpur Malaria Protection Programmes enlisted 34,158 people.

2,81,323

Patients treated through splendid patient care



Infrastructure Development



SDG 9 – Industry, Innovation and Infrastructure

Infrastructure development benefits agriculture as farmers are able to access markets to sell their produce and avail education and healthcare facilities to improve the quality of life. We are engaged in connecting/repairing roads, community halls and assets, rest places; installation of solar lights and piped water supply; and construction of water tanks. These activities have aided 73,959 people.

Model Villages

Of the 297 villages that we work in, we have zeroed in on 51 villages for a transformative process that raises them to become model villages. So far, in a seven-year timeframe, we have been able to transform 22 villages into model villages.

SDG 6 – Clean Water and Sanitation, SDG 7 – Affordable and Clean Energy and SDG 8 – Decent Work and Economic Growth

Towards providing access to safe drinking water, we have installed five Reverse Osmosis (RO) plants at Kharach, Vilayat and Renukoot, covering 7,357 villagers. At Nagda, Harihar, Vilayat, Renukoot, Halol and Karwar, pipelines and borewells provide access to water, benefitting 28,974 villagers.

Additionally, 2,474 individual toilets and sanitation facilities were set up in schools at various locations. In the villages we operate, 44 villages were declared Open Defecation Free (ODF).

Water Positivity

Water positivity, within the fence and beyond, is one of the most important tasks before us. It includes water conservation, and water harvesting structures. Water is the lifeline for agriculture. To reach our goal of sustainable agriculture, we undertook watershed management

and built reservoirs (81), large dams, check dams (200), bundings (100), ponds (115), rain water harvesting structures (150), groundwater recharging points (8,000) and holistic watershed development projects (6) that take care of irrigation and other agricultural needs.



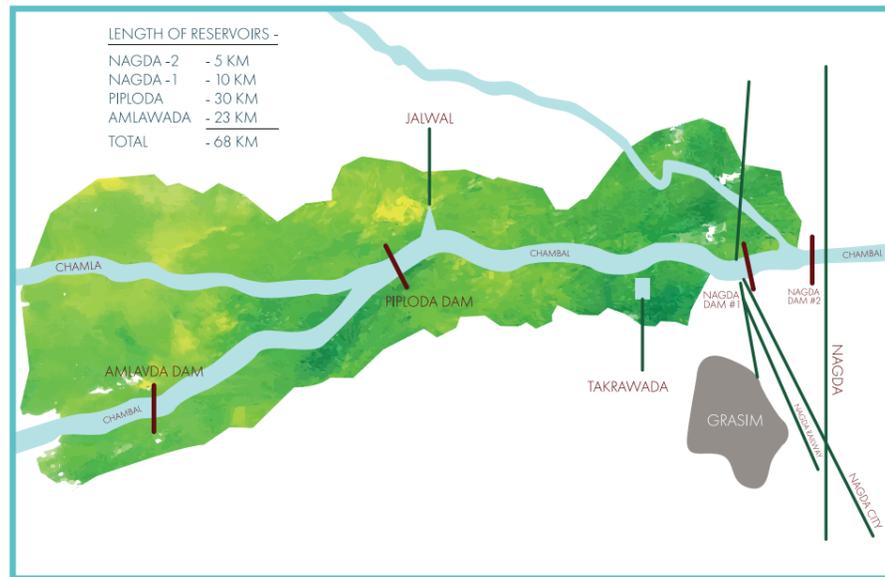
Case Studies

Check Dam – Piploda

In 1956, Grasim constructed the check dam at Piploda Bagla on the Chambal river, which flows downstream to Rajasthan and Uttar Pradesh through the Malwa plateau. The main purpose was to store the river water and prevent it from going unutilised as surface runoff, and to gradually raise the groundwater level of the neighbouring villages. Earlier, farmers were heavily reliant on monsoon rainfall for cultivation. Post monsoon, the Chambal river would turn into a thin stream and the farmers would turn to groundwater resources.

The check dam, which has been in operation for 63 years, today has a huge reservoir spanning around 30 km with a massive storage capacity of 236 Million Cubic Feet (MCFT). This dam is a source of water to 10 villages around the catchment, including Madgani, Gidawada, Sekhdi Sultanpur, Bhilsuda, Padlaya, Sonchidi, Sawand and Kadiyali.

Piploda Bagla is a perfect example of how a village can benefit from the availability of water. Today, its farmlands are filled with crops through the year, pointing to the progress of a dry village in 1956 to a water surplus one in 2019.



Testimonial I



Amar Singh Lal Singh Dodia, 48, owns 30 bighas of agriculture land in Piploda and grows wheat, soybean and maize in five bighas (approximately two acres).

When asked about water availability in Piploda, he said, "Supply is abundant through the year; hand pumps in our village are also used to access water." This implies that the groundwater level in the village has reached the topsoil; they just need to drill a 10-20 feet hole

for extracting water. He explained how farmers are utilising water from the reservoir: "Farmers have laid pipelines up to a length of 4 km. A single-phase motor is used to pump water from the pipeline to the field; some water is also fed into the well for future needs." He added, "This well water becomes useful during summer we grow vegetables like tomato, potato, onion and cucumber, as their cultivation requires less water."

Testimonial II

We then met Rajan Singh Mangu Singh Solanki, 24, who owns 14 bighas of agriculture land near the check dam. "I am very fortunate to be a resident of Piploda; we get to grow crops throughout the year. I am

growing chana, garlic, wheat, peas and onions," he said. He has ambitious future plans based on the water availability. "I would like to practice horticulture in future."



Impact on Communities

- > Availability of potable water round the clock
- > Increase in agricultural productivity by 40%; with multiple cropping patterns
- > Happiness index reasonably high due to income security
- > Rise in income levels by 30%



Wealth through Water Harvesting

Jashuben Devsibhai Kachhot, a resident of the Mithapur village in Veraval Taluka, Gujarat, never went to school. Agriculture on the family's three-acre land was their only source of sustenance. The sudden death of her husband brought life to a standstill. However, her positive approach to life and hard work helped turn the situation around.

The Indian Rayon Jan Seva Trust team approached her for enrolment in its agriculture and water conservation training programme. She learned about various water harvesting techniques like farm well recharging and drip/sprinkler irrigation.

Jashuben wasted no time in putting her learnings into action. She constructed a farm well recharge and adopted the drip irrigation method. With water available round

the year, her family ventured into the multi-crop farming programme and started growing wheat, millet, groundnut, grams, beans, as well as vegetables such as brinjal, tomato, cabbage and chilli.

Today, Jashuben sees a bright future ahead. She has become an inspiration to other women, motivating local farmers to implement well recharge in their farms.

Due to water harvesting:

- > Underground water level has been raised
- > Crop production has increased by 30% and multi-cropping has gained traction
- > The quality of produce has improved, along with the quality of water

"Our CSR projects give a deep sense satisfaction. In the model villages, we have seen transformation that challenges long held beliefs and customs, set mindsets and social norms that have come down generations by, have lost their relevance. I can only imagine, the kind of courage it requires to make a fundamental change at such a grassroots level. In a manner of speaking, collectively our teams have braved all odds. Even as we endeavour and continue to make a life changing difference to underprivileged people globally, it is an uphill task and a very long journey".

Mrs. Rajashree Birla
Chairperson — Aditya Birla Centre for Community Initiatives and Rural Development

Economic Value Creation and Distribution

Strengthening Financials, Augmenting Resilience

Grasim has built a strong platform for growth through organic expansions and acquisitions over the past seven decades, which also broadened its geographic footprint and product portfolio. However, growth for us is not just about scale; it's also about taking our businesses to leadership positions in respective markets, improving their resilience and creating sustainable value. Strong profitable growth, along with our ability to identify competitive advantages, attracts the best talent and creates a positive impact on the environment, while minimising risks ensures our long-term sustainability.

Generating Economic Value for Stakeholders

Our strong business fundamentals, coupled with our unwavering commitment to doing business the right way, allow us to continue generating economic value and distributing it to our stakeholders. We adopt the highest corporate governance standards in the industry and continuously assess our performance on adherence to those standards. Thus, even during business downcycles, we managed to maintain our margins by expanding our footprint, leveraging emerging technologies and achieving operational efficiencies.

FY19 Highlights

- > The consolidated revenues from operations (net of excise duty) increased from ₹55,894 crore in FY18 to ₹72,971 crore in FY19, driven by all-round growth in the Financial Services, Cement, Viscose and Chemicals businesses with visible steady growth in production and sales volume
- > The rise in the EBITDA at ₹12,820 crore for the year compared to ₹10,883 crore in FY18 was majorly driven by the performance of the Chemicals, Cement, Viscose, and Financial Services businesses, despite increase in the cost of major inputs
- > Caustic soda sales surpassed the 1-million-tonne mark
- > Capacity expansions in core businesses
- > Launched Livaeco™, an environment-friendly variant of Liva with 'end-to-end' traceability, a first in the country
- > In VAPs, four new platforms were created to address the food, plasticiser, sanitiser and water treatment segments
- > Acquired Suktas India to enhance premium fabric capability in the Textiles business

BUSINESS PERFORMANCE



Viscose

We introduced Livaeco™ and LIVAHome as an extension of brand LIVA. The value-added specialty fibre line, based on in-house technology, with 16 KTPA capacity was commissioned at Kharach in record time, much ahead of schedule. During the year, 35+ million garments featured the Liva tag, recording manifold growth since its official launch. The VSF business reported its highest production and sales volume to date of 541 KT, led by capacity debottlenecking. VSF demand in India is expected to continue growing at high single digits for the next 2-3 years.



Chemicals

We became the first company in India to touch the coveted 1-million-tonne sales mark in caustic soda. We also acquired the chlor-alkali facility at Balabhadrapuram in Andhra Pradesh. Our caustic soda capacity is set to increase from 1,147 KTPA to 1,457 KTPA by FY21. We launched four new brands of chlorine VAPs for consumer-facing products.



Textiles

Our Linen business maintained its market leadership with ~45% share in linen fabric (pure linen category) and ~45% in linen yarn. The retail arm, Linen Club, is one of the largest single-brand franchise networks in India. We added 28 new Linen Club EBOs during the year, taking the total EBO count to 200. The 100% acquisition of Suktas India is aimed at expanding our leadership in the premium fabric segment, complementing the existing linen business.



UltraTech Cement

UTCL reported impressive numbers with net revenue of ₹37,379 crore and EBITDA of ₹7,226 crore. We completed the acquisition of Binani Cement Limited, renamed as UltraTech Nathdwara Cement Limited, with an installed capacity of 6.25 MMTPA and commissioned a 3.50 MMTPA greenfield project at Manawar in Madhya Pradesh, which expanded our total cement capacity to 99 MMTPA in India.

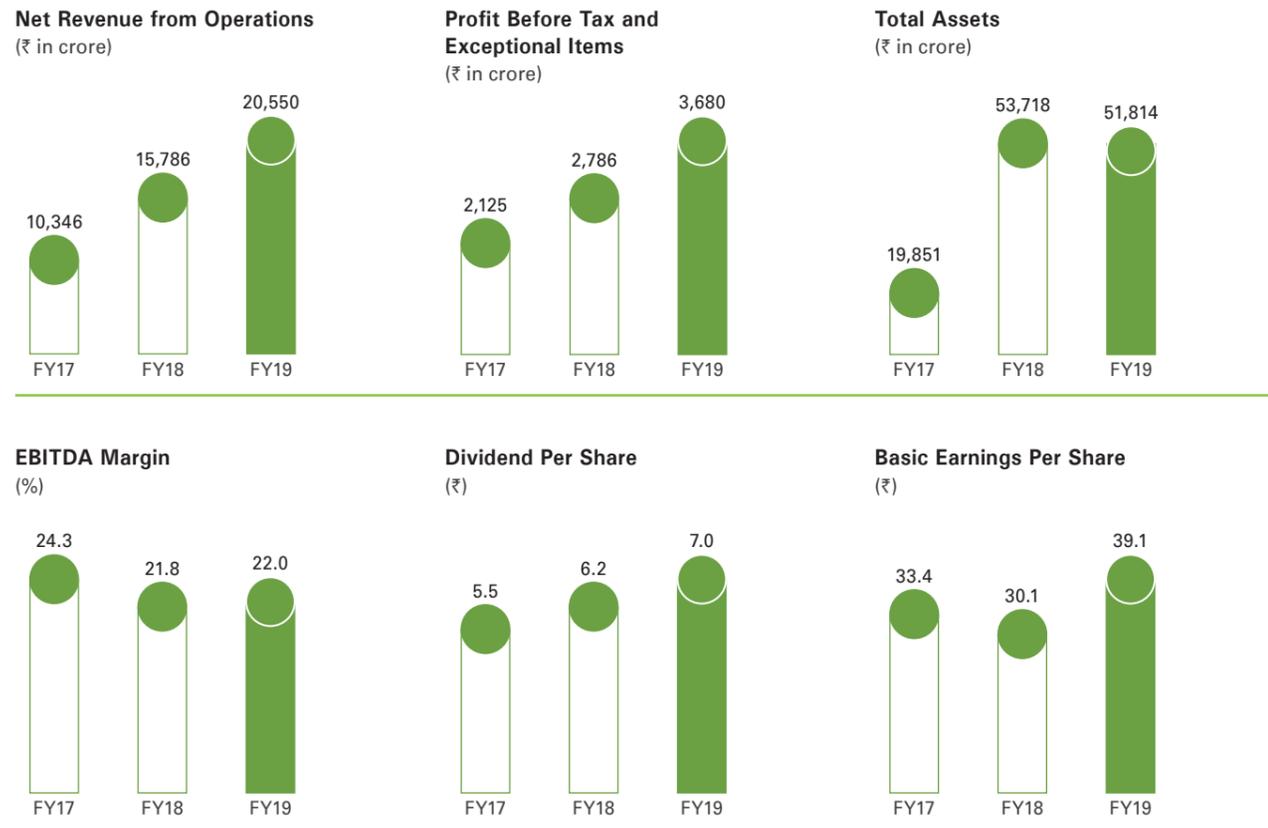


Aditya Birla Capital Limited

As one of the largest non-banking financial services player in India, ABCL retained its position among the top fund managers in India with ₹2,65,000+ crore of assets under management and a lending book of ₹63,119 crore. It offers a differentiated as well as comprehensive range of financial solutions, under one umbrella, to 10 million+ active customers through 850+ branches and 2,00,000+ channel partners.



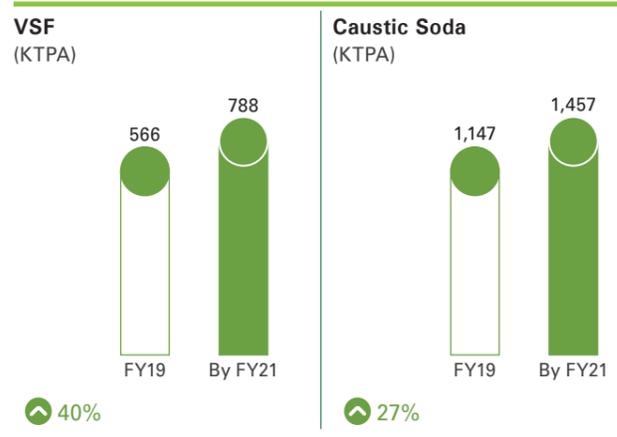
Standalone Financial Summary



Capacity Expansion

To maintain our leadership position, we are continuously making strategic investments in increasing our caustic soda capacities; developing new chlorine derivatives leading to higher captive consumption of chlorine; enriching our product mix; strengthening our environment, health and safety global best practices; and building competitive advantages to serve the global demand of our customers.

Capacity Expansion under Execution in Core Businesses (to be commissioned by FY21)



Economic Value Contribution

(₹ in crore)

Particulars	FY19	FY18	FY17
Economic Value Generated			
Gross Revenue	22,912	17,413	11,111
Other Operating Revenue	205	184	142
Other Income	568	464	472
Sub-total (A)	23,684	18,060	11,724
Economic Value Distributed			
Operating Costs ⁵	14,905	11,537	7,495
Employee Wages and Benefits	1,529	1,143	678
Payment to Providers of Capital	607	490	268
Payment to Government*	3,126	2,374	1,139
Community Investments (CSR)#	46	29	17
Sub-total (B)	20,212	15,572	9,597
Economic Value Retained (A - B)	3,472	2,489	2,127

⁵ Excludes depreciation

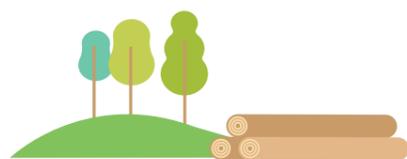
* Includes excise duty, GST, income tax paid (net of refund) and dividend distribution tax

Excludes salaries and overheads to CSR employees



VISCOSE

VISCOSE — THE GREATER FIBRE



Renewable Natural Resource

Viscose is made from wood, a fully renewable natural source. 100% of wood is certified by FSC®, SFI® and PEFC™, and aligned to Canopy requirements



Lower Water Consumption

Since it is based on wood, viscose requires less amount of water. The amount of water consumed to manufacture each tonne of VSF globally, is among the lowest



Efficient Land Use

Viscose uses a small fraction of land compared to natural fibres



Biodegradable

Viscose is fully biodegradable in soil, water and marine environment



Responsible Manufacturing

Higg (3.0) FEM has been rolled out in the manufacturing sites with benchmark third-party verified scores >90%



Product Attributes

We have strengthened our environmental credentials by launching Livaeco™

Viscose Business

Viscose business innovations are directed towards addressing the needs of its customers by offering a versatile and range of sustainable products manufactured using raw materials sourced from sustainable forests using closed loop manufacturing process. The business is committed to provide benchmark quality products for textile and hygiene application using state-of-the-art technology developed by its R&D team.

1. PRODUCT PROFILE

In India, Grasim is a pioneer in VSF — a man-made, biodegradable and versatile fibre that is fast emerging as a sustainable alternative to resource-intensive natural fibres. VSF is used in apparel, home textiles, dress materials, knit wear and non-woven applications. Our Viscose range of fibres can be used in their original form or can be blended with all natural and synthetic fibres for enhanced comfort and feel.

Textile Fibres



Birla Viscose

Birla Viscose is the first-generation regenerated cellulosic fibre made from wood pulp. Viscose fibre is not only biodegradable and eco-friendly, but is also one of the most purified forms of cellulose. Birla Viscose enriches every garment with fluidity, lustre, softness, drape and comfort. Excellent for skin, these fibres inspire soft drapes and effortless style.



Birla Modal

Birla Modal is a premium specialty fibre that offers superior softness. It is a nature-based fibre made from wood sourced from Canadian birchwood trees. The Modal has twin benefits: superior softness and strength, akin to cotton. Birla Modal fibre, when blended with cotton, retains the properties of both modal and cotton. Since both are cellulosic fibres, processing them is easy.



Birla Spunshades

Birla Spunshades are coloured viscose fibres made by using a technique that places the colour pigments directly into the fibre matrix. Thus, the colour fully saturates the fibre, preventing garments from losing lustre during washes. Spun-dyed viscose fibres also eliminate the need for conventional dyeing and washing, resulting in zero wastewater generation.



Birla Excel

A fibre that's truly environment friendly, Excel is made from a unique closed-loop process. The by-products are reused in the process, minimising discharge and resulting in a near zero-environmental impact. The solvent recovery from the viscose closed-loop process is as high as 99.7%, much above that of any available closed-loop technology. It is also the most water efficient in the Man-made Cellulosic Fibres (MMCF) industry.

Non-woven Fibres

Birla Purocel

Birla Purocel is a 100% nature-based non-woven fibre, ideal for personal care, hygiene and medical usage, and next-to-skin applications. Purocel offers a wide range of fibres for non-woven applications with a focus on sustainability, innovation and partnership.

Products in a Nutshell



Fine Denier

Fibres for creating differentiated softer and lighter non-woven end products



Purocel Viscose Fibre

For all hygienic non-woven applications



EcoFlush

Short-length fibres for bio-friendly non-wovens and other applications



Face Mask

Smoothest experience for next-to-skin applications such as facial masks with advanced moisture management



Hope FR

Inherent flame-retardant fibres for mattress and upholstery products



Spunshades

Inherently coloured cellulosic fibres for non-woven wipes



Coarse Denier

High-performance fibre for industrial non-woven applications



Antibac Plus

A unique fibre to create non-wovens that restrict the growth of odour-causing bacteria



EcoDry

Biodegradable and compostable fibres for sustainable and environment-friendly hygiene disposable products



QR Fibre

Fibre created for effective cleaning and disinfecting in household and industrial environment



Viscose Filament Yarn

Our VFY unit (erstwhile Indian Rayon) is one of the largest producers of VFY in India, with a rich heritage of over 60 years. We are first in the country to adopt the most advanced VFY technologies, viz. Pot Spun Yarn (PSY), Continuous Spun Yarn (CSY) and the unique patented Spool Spun Yarn (SSY). One of the key advantages of VFY has been lower natural resource utilisation, which potentially makes viscose the sustainable yarn of the future. We produce a wide range of Superfine (20D to 75D), Fine (76D to 150D), Coarse (151D to 1,800D) bright, dull, coloured yarns and specialty products, e.g. air-texturised yarns, flat yarns, etc. in 750 shades.

Product

VFY

Application

Textile apparel, satin sarees and dupattas, women's ethnic wear, fabric ornamentation through embroidery, knitwear, suit linings and selvage, socks, furnishing carpets and tapestry, home décor and embroidery thread



2. PROMOTING GREENER, SUSTAINABLE FASHION

At Viscose, a multi-disciplinary team drives our innovation agenda. The process starts with early tests of concepts in the laboratory and leads to short-listing. The selected concepts undergo iterative processes of developments and testing, and then undergo scale-up in fibre pilot plants. The fibres are taken through customised processes of yarn, fabric and garment making. In-house, external and customer facilities are all engaged in effective delivery with minimal lead time. Successful products are then transferred to plants for commercialisation.

The tremendous success of brand Liva can be attributed to Viscose's relentless focus on customer centricity. The launch of Livaeco™, which is a more environment-friendly fibre, is a step further boosting its sustainability credentials while

retaining the fashion quotient. Livaeco™ is made from raw materials sourced from forests that are certified by the FSC® that is responsible for conserving biodiversity, saving endangered forests and increasing the overall green cover. Livaeco™

also promises minimal water usage vis-à-vis other natural fibres in its manufacturing process and lower GHG emissions.

Key Features

100% Sustainable and Responsible Forestry

- > FSC® certified
- > Maintains the forest cover
- > Six times more efficient in conserving land compared to competing natural fibres

Lowest Water Consumption

Saves 900 litres of water vis-à-vis other processes of manufacturing natural fibres

Lowest GHG Emissions

300 grams less GHG are emitted compared to competing natural fibres

Traceability of Source

Molecular tracer helps in tracing garments to their source at any stage; downstream traceability can be done through a web-enabled system

Fastest Biodegradability

Biodegrades completely within six weeks



3. RESPONSIBLE SOURCING

VSF engages with suppliers that source raw materials from sustainably managed forests. 100% of the wood is sourced from controlled forests, following internationally recognised standards such as FSC®, SFI® and PEFC™. Wood varieties such as eucalyptus, spruce, pine, maple and aspen are the starting materials for dissolving pulp, which in turn is used for producing viscose fibre.

Wood Sourcing Policy Traceability

The pulp used in our manufacturing process is controlled wood. We strictly implement our requirements of controlled wood supply across our suppliers to ensure responsible sourcing, adherence to the local laws and certifications from FSC®, SFI® and PEFC™. We also engage closely with leading NGOs such as Canopy to understand globally available forestry information and standards. Viscose has achieved the green shirt ranking in Canopy's Hot Button Reports 2017 and 2018, which is a testament to our global leadership in responsible sourcing. Birla Cellulose has received 'light green shirt with dark green shading' (25-29 buttons) in CY19.

Wood from forests goes through a complex chain, including processing, manufacturing and distribution, before ending up as a fashion product. In collaboration with leading global brands, Viscose has developed a blockchain-based traceability solution that helps brands and the consumer verify sustainable fibres across the value chain. Our forest-to-fashion traceability solution offers two-fold provenance tracking, based on three-directional 'live' linking. The process is simple. First, the brands need to upload the information on the chain of custody-based

solution. Only key parameters relevant for traceability are included — entity name, product description, date and quantities. Brands will be able to view the entire value chain, albeit for their orders only. Value chain partners will also be able to view the chain, for 'their own immediate' orders and supplies to avoid any misuse of the information. As soon as the brands establish the link, they can access the entire chain of custody of materials, from forest to garment. This can be downloaded as a QR code and utilised as desired.



15 OF THE SDG Responsible Sourcing

Our raw material sourcing policy adheres to the highest environment, social and safety standards. We do not source wood from Ancient and Endangered (A&E) forests. We assess and monitor the performance of key suppliers on sustainability to ensure compliance with the Manufacturing Restricted Substance List (MRSL) in chemicals procurement and follow stringent safety practices during transportation. Our contractors are required to follow the national labour laws and a strict 'No Child Labour' policy. It is mandatory for

the contractors to receive training on safety and health. Our Supplier Code of Conduct gives guidance to all the suppliers on key requirements related to sustainability.

Initiatives

- > Engaging with Canopy, a non-profit organisation, for sustainable wood sourcing
- > Following standards such as FSC®, SFI® and PEFC™ for wood sourcing

- > Developing alternative raw materials for cellulose by utilising recycled pre- and post-consumer waste
- > Substituting hazardous substances from the MRSL in our supply chain
- > Localising supply of goods and services and developing local communities

Grasim places the highest value on providing customers with reliable products, with safety being accorded the highest priority over sales objective, product design, marketability and expense issues.

Our plants have various certifications, including Environmental Management System (ISO 14001), Occupational Health & Safety Assessment System (OHSAS 18001), Quality Management System (ISO 9001) and Social Accountability (SA 8000). The products

are certified with OEKO-TEX® Standard 100, both for textile and non-woven applications. Our fibres are qualified for the 'Skin Compatibility and Skin Irritation' test conducted by the German Institute FKT, which attests to their suitability for 'next-to-skin' applications.

Safety in Logistics

The transportation of chemicals is done in safe and government-approved vehicles designed to carry such chemicals. The drivers are trained for hazard management in case of any accidents. TREM (Transport Emergency) cards are used for transportation of

chemicals such as carbon disulfide. An emergency response system is established to take care of any unforeseen incidents. Stringent safety practices are applied in the transportation of other chemicals such as sulphuric acid, caustic soda and sulphur.

Training is provided to the warehouse staff handling and storing these materials. The safety documents such as Material Safety Data Sheets (MSDS), the risk assessment, compatibility study etc., are ensured before the material is purchased at site.

4. RESPONSIBLE MANUFACTURING

As a member of the Sustainable Apparel Coalition (SAC), a global consortium of more than 200 brands, Viscose uses the Higg Index to monitor the manufacturing units' performance on environment and social aspects. The Index monitors energy and water consumption, reduction in effluent discharge and chemical management practices. Birla Cellulose is among the first fibre brands to adopt Higg (3.0) FEM and has been in the upper third quartile.

The Higg scoring has been completed for all fibre manufacturing units, along with a benchmark analysis. The Higg scores are reviewed annually.



Closing the Loop

The concept of a 'closed-loop' or 'circular' economy decouples growth and prosperity from our use of natural resources. It challenges us to create a more regenerative system that ensures valuable resources are reused and recycled for as long as possible as part of new product lifecycles, while fostering sustainable economic growth. Fibre is produced at Grasim using a highly efficient closed-loop process that helps recover and reuse chemicals and water.

At each stage of the pulp and fibre manufacturing process, inputs such as wood, chemicals, energy and water are sourced responsibly, used prudently and recovered sustainably by implementing the best available closed-loop technologies. Domsjö Fabriker (Domsjö), based in Sweden, is the only specialty pulp and biorefinery globally to have a closed-loop bleaching process with zero emissions.

A key focus of our roadmap has been to maximise input chemical recovery throughout our manufacturing process as we work towards close-loop production of viscose fibre. We are also a contributing member of the Zero Discharge of Hazardous Chemicals (ZDHC) foundation and a participant in the development of MMCF industry-specific standards for wastewater management.



Responsible Manufacturing

Manufacturing excellence is the critical element for attaining and maintaining leadership in sustainability in the MMCF industry. This is achieved by constantly adapting to the Best Available Technologies (BAT) and deploying a closed-loop manufacturing process to improve resource efficiency.

Initiatives

- > Implementation of closed-loop production processes and production of various products from different wood components
- > Reducing, reusing and recycling all the critical material and energy in manufacturing operations
- > Going beyond regulatory norms to achieve the most stringent standards such as EU BAT, EU Ecolabel, ZDHC and Higg (3.0) FEM
- > Recycling of pre- and post-consumer waste cellulose as raw material

5. PRODUCT QUALITY AND SAFETY

The 'Product-by-process' Quality Concept

The concept ensures that the product that is produced is validated on real time basis and is based on the critical operational parameters, based on which the finished product quality can be assured.

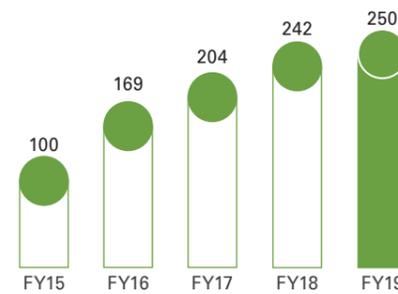
The First Pass Yield (FPY) tool delivers a real-time predictive quality check of the final product. The tool monitors all the critical parameters and applies Statistical Process Control and standard deviations to predict the quality and give feedback to the operators. This enables the operators to make necessary corrections at the production stage in case of any deviations.

During FY19, due to continued upgrades to our production lines, 78% of our capacity became mechanically capable of producing benchmark quality. We are aggressively addressing a key quality challenge — the growing vortex [Murata Vortex

Spinner (MVS) type yarn-spinning demand, which requires even lower fibre imperfection levels. MVS Grade production increased from 64% in FY17 to 82% during the year, and we aim to achieve 90% in FY20. We

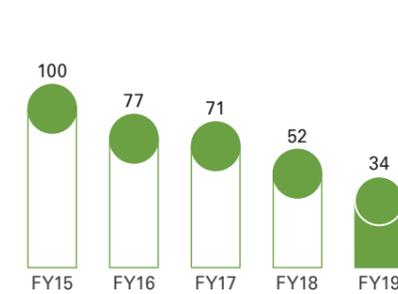
will focus on improving the process stability and product quality of non-benchmark production lines through innovative solutions that do not require a large amount of new capital.

Fibre Process — FPY (%)
Higher the Better



Note: Indexed FY15 = 100

Fibre Customer Complaints (no. per '000 tonne)
Lower the Better



Note: Indexed FY15 = 100

6. TRANSPARENCY AND TRACEABILITY

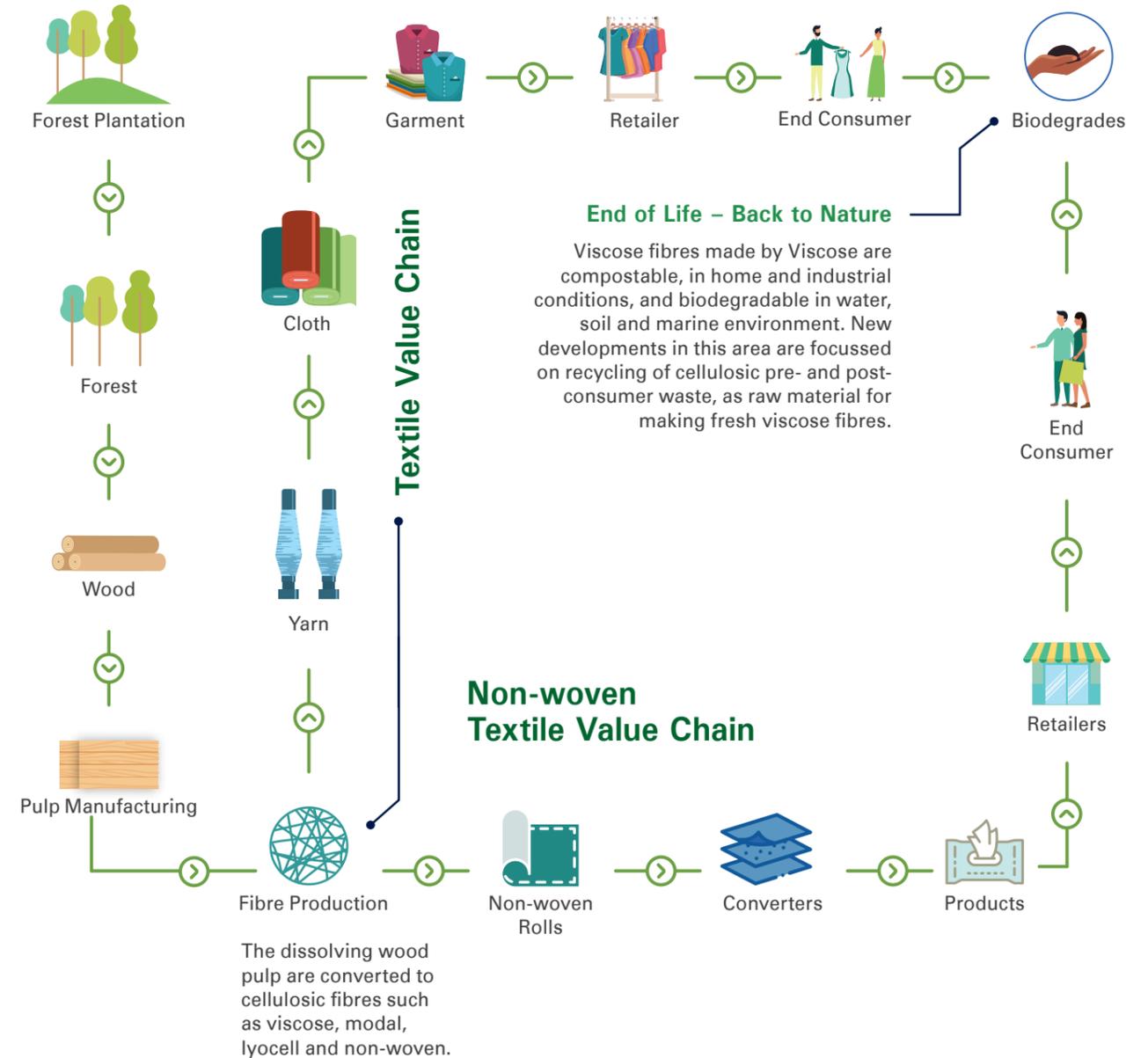
At Viscose, transparency in supply chains and responsible sourcing of materials not only play a crucial role in ensuring a sustainable

future, but also address increasing customer interest in the authenticity and origins of products. We, thus, work with forward-thinking

customers to innovate the design, delivery and application of sustainable products.

7. ENGAGING WITH STAKEHOLDERS FROM FOREST TO FASHION

Our pursuit of sustainability is shaped by our long-term vision and entrepreneurial spirit. Grasim actively collaborates with its stakeholders throughout the value chain — from plantation of forests to manufacturing of pulp and fibre to creating fashionable apparel for end consumers.



8. PACKAGING

Suitability of the packaging material is a critical discussion point while procuring chemicals. The products must be labelled properly, and hazards must be identified with the appropriate Global Harmonised System (GHS) signage.

We have initiated a process to reuse packaging material. The bales used for packing fibres are sold to the recyclers. The paper used for packing pulp is recycled. The sodium sulphate bulk packing is recycled, wherever our customers have the capability of doing so, while bulk trucks have replaced packing materials in several sites, where customers have the facility to unload these trucks. This initiative has not only contributed to reducing our environmental footprint but has also reduced cost for our customers.

Key Initiatives

- > Adopting sustainable raw materials
- > Developing sustainable products
- > Improving products by incorporating customer feedback
- > Undertaking comprehensive quality and safety management
- > Supporting social business initiatives



9. LIFE CYCLE ASSESSMENT (LCA)

LCA is an established technique to assess environmental impacts associated with a product across all stages of its value chain from raw material extraction through materials processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling. It was undertaken for assessing the environmental impact of Pulp & Fibre products across various life cycle stages for all the locations.

The assessment was conducted using the cradle-to-gate system boundary, as per ISO 14040/44 standard. Process-specific data collection questionnaires were prepared, and data was collected for all the manufacturing units. The data examined in the LCA refers to annual production and ponders 'inflows' such as water consumption,

non-renewable and renewable energy sources and 'outflows' such as products, by-products, wastewater, air emissions, waste and transport. Finally, LCA models were created using the GaBi software for Life Cycle Impact Assessment, to quantify the environmental impact.



10. REDUCING OUR FOOTPRINT

We are committed to improving lives, now and for generations to come, by ensuring that our products, packaging and operations are safe for our employees and customers, and the environment. Within our operations, we strive to continuously improve our efficiency while reducing our carbon footprint.

Viscose is Carbon Neutral in Scope 1 and 2 Emissions

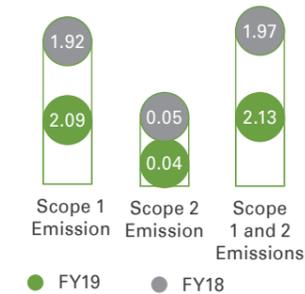
The pulp and fibre business of Aditya Birla (Birla Cellulose) comprises of VSF operations of Grasim Industries Ltd. (India units, pulp units of joint ventures in Canada and Sweden and VSF unit in China) and VSF units in Indonesia and Thailand. Birla Cellulose is carbon neutral with respect to scope 1 and scope 2 emissions owing to carbon sequestered through managed forests in Canada.

Therefore, VSF business operations of Grasim Industries in India are also carbon neutral as they form a part of Birla Cellulose.

This is a result of years of focused efforts in making the process energy efficient, increasing the share of renewable energy and ensuring net positive growth of the forest cover managed by us.

Viscose is preparing a plan to further reduce its GHG intensity by implementing energy-efficient technologies, increasing the use of renewable energy, improving energy efficiency of its supply chain and increasing carbon sequestering in collaboration with its strategic partners.

GHG Emission (MMTCo₂e)



CS₂ and Sulphur Recovery

In all our plants, a CS₂ condensation unit is installed, which recovers CS₂. This CS₂ is then reused in the dissolution of viscose. In some of our plants, we have adopted the Claus Sulphur Recovery technology to recover sulphur in its molten form from H₂S tail gas and some other plants have Wet Sulphuric Acid (WSA) plants. The molten sulphur is reused in making sulphuric acid. In some plants, the exhaust gas is treated to remove H₂S, and the CS₂ containing gas is

fed to the Carbon Adsorption System where CS₂ is recovered. The recovered CS₂ and sulphuric acid are reused in the viscose process. The recovered sulphur is converted to sulphuric acid and reused. The combined recovery of sulphur could be higher than 90%.

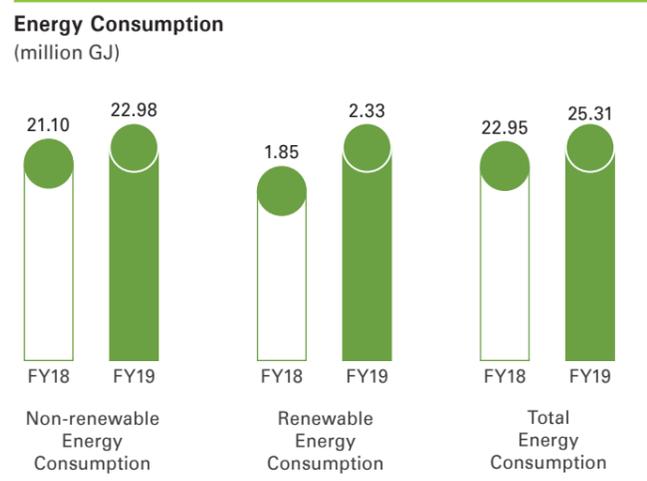
The closed-loop production system is being upgraded with an investment of \$170 million to deploy the best available technologies across its location and comply with the stringent EU BAT norms.

Viscose is carbon neutral as carbon sequestered is more than GHG Scope 1 and 2 emissions combined together



Energy

Viscose fibre production is an energy-intensive process. As a global business, we rely on both renewable and non-renewable energy sources for our operations. The use of non-renewable energy contributes to CO₂ emissions.



Key Energy Conservation Initiatives



Improve Utilisation of Heat Generated in the System, by Heat Integration of Various Processes

- > Preheating of air in fibre dryer using waste heat
- > Energy savings in steeping press by alternate source of cooling
- > Utilising waste heat in drying salts in a closed-loop salt recovery system



Process Improvement

- > Instilling an additional biogas reactor to utilise organic waste to generate biogas and save furnace oil
- > Implementing innovative technical solutions to improve energy efficiency of the crystalliser
- > Undertaking energy-efficient routing in viscose to optimise energy consumption
- > Optimising energy consumption in pulping operations



Adoption of High-efficiency Equipment to Reduce Energy Consumption

- > Installing Variable Frequency Drives (VFDs) for critical and high-power applications
- > Installing state-of-the-art high-energy equipment for refrigeration loads
- > Installing highly efficient LED lighting
- > Installing new-generation high-efficiency pultruded cooling towers in place of old cooling towers; replacing older motors with high-efficiency motors
- > Replacing steam ejector with new high-efficiency design for salt crystallisation

Disclaimer: The reported energy is consumption by individual businesses and does not consider into effect the sharing of energy between businesses of Grasim Industries Limited. For instance, the chlor-alkali unit at Nagda and Vilayat along with Epoxy unit at Vilayat are sourcing energy from pulp and fibre business of Grasim Industries Limited. Hence the apportioned energy consumed by pulp and fibre business is reported as its scope 1 emissions and the apportioned energy consumed by chemical business is reported as its scope 2 emissions.

11. WATER MANAGEMENT

Water is the most valuable natural resource on our planet — supporting billions of plant, animal and human lives, and helping ecosystems thrive. We recognise the importance of reducing water consumption and improving water quality to optimise our environmental stewardship.

We use water responsibly with equitable sharing by end users, respecting the diversity of needs. The main source of water for our operations are rivers/lakes nearby our units. Most of our water withdrawal is from surface water sources, which get used in our

plant operations as well as at our colonies. Some of our Pulp & Fibre units also draw wastewater from other plants, while others use water utilities. At Grasim, we are working on various initiatives to reduce freshwater use, minimise

wastewater generation, and maximise reuse and recycle through RO. We deployed the RO technology to recycle effluent for the first time in VSF.

Conserving Water through 3R

Challenge

Water and coal are important material issues for Viscose. There were two major challenges before us. One, at various units, we were losing water due to various reasons: overflowing, water used for wash, wastewater not being recycled and reused, and using freshwater in belt press, which added to our consumption. Second, we were unable to utilise multi-stage flash evaporator vapour condensate fully in the auxiliary department's spin bath filter backwash and lime batch making.

Action

The 3R principle – Reduce, Reuse and Recycle – was applied across all the units. Each site worked out alternative innovative processes for water savings. These included technologies for improving the efficiency of processes to reduce consumption, technologies that allowed reuse of water multiple times, and technologies that

could recycle wastewater. In addition to 3R, harvesting is also applied to capture water. Harvesting of water at Nagda site makes it more than 3 times water positive.

Process Changes Implemented

- > Improved washing of fibres in spinning while using less water
- > Substituted water with other solutions in spinning and other locations in the Auxiliary Department
- > Installed state-of-the-art membrane technologies to recycle wastewater

Outcome

Tangible Benefits

- > New benchmark achieved in water intake, much lower than EU BAT specified limits
- > Reduction in freshwater intake by more than 50% at several sites
- > Reduction in wastewater generation and pollution load by more than 50% at several units

- > Reduction in pollutants' load by more than 50% at fibre manufacturing units
- > Attainment of leadership in water consumption in the viscose industry

Intangible Benefits

- > More water available for alternate purpose in the rivers for use by the communities around our plants
- > Reduced energy consumption due to load reduction on intake and effluent discharge pump
- > Conservation/recycle of natural resources
- > Lower maintenance of effluent discharge line due to less load
- > Improvement in productivity due to decreased production cuts (since water availability has increased within existing reservoirs)

Treated Wastewater Discharged

Responsible and safe management of treated wastewater from the point of generation until the final disposal is a key priority. All our sites have an operational Effluent Treatment Plant (ETP).

The business approach has moved from looking at wastewater treatment from 'end of pipe' to 'source segregation and treatment'. Effluents discharged by all our Pulp & Fibre units combined into the local water bodies.

Water Withdrawal
(million m³)



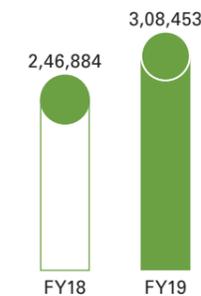
We have undertaken a progressive initiative of reducing COD in the treated wastewater discharge at one of our units in order to have a good amount of nutrients and lesser emission of COD containing effluents in the outgoing water.



12. WASTE MANAGEMENT



Waste Disposal
(MT)



Viscose (includes viscose domestic plants and VFY)

Viscose is striving to move away from a 'take, make, dispose' model to one closely aligned with 'take, make, recycle', or simply put, be part of the circular economy. We ensure that waste generated from our operations is handled/treated as per the regulatory requirements. The hazardous waste generated at our units is either supplied to authorised recyclers, released through treatment storage and disposal facilities, or supplied to other industries as raw material.



13. HEALTH AND SAFETY

We believe the best way to 'improve our safety' is to create and nurture a work environment where everyone is trusted, valued, has a voice, contributes and supports to achieve safety excellence. Everyone shares information, experience, resources, knowledge, time and effort; participates in problem solving; and is responsible and empowered to do their work.

Our safety policy, safety principles and integrated safety management system work towards achieving a common goal of 'Zero Harm'.

We conduct regular performance reviews, test procedures and raise awareness through open communications as part of our commitment to further improve our health and safety management.

All our employees are provided safety training as part of the induction programme. The safety training

also covers our contractual workforce. We devise our safety agenda on an ongoing basis to inculcate a culture of safety across the organisation. The health and well-being of our people directly impacts our business success. We encourage our employees to prioritise health and avoid stress.

We have instituted a robust safety governance system. The highest governance body in the organisation is the OH&S Board, chaired by the Managing Director, which reviews

our safety performance and provides guidance on a regular basis. Also, there are apex committees headed by the respective unit heads. The apex committees are supported by sub-committees, chaired by respective functional heads and/or senior department heads.



Sub-committee



Standards, Rules and Procedures

- > Develop, review, implement and communicate safety standards, rules and procedures
- > Identify areas where standards and procedures need to be evolved and inform the Board-level sub-committee
- > Implement audit protocols for all standards at each line function



Safety Observation and Audit

- > Ensure effective implementation of Safety Observation (SO) and First Party Safety Audit (FPSA)
- > Review and monitor compliance of observations/findings raised through the processes of SO and FPSA periodically



Incident Investigation

- > Ensure reporting of all incidents, including near misses
- > Train line managers in quality incident investigation and active communication of significant incidents
- > Identify and analyse incident trends, brief the site apex committee and monitor to ensure timely closure of recommended actions



Training and Capability Building

- > Conduct training need identification
- > Source internal trainers to impart knowledge to future trainers
- > Address all gaps discovered in training need identification processes



Contractor Safety Management

- > Ensure safety capability building
- > Conduct Contractor Field Safety Audits (CFSA's)
- > All contractors go through mandatory pre-medical examinations, trade tests and safety induction, before issuance of gate pass
- > 100% of workers are represented in formal joint management and all Health & Safety topics are covered in formal agreements with trade unions



Process Safety

- > Review of Process Safety Incidents
- > HAZOP for Critical P&IDs
- > Process Hazard Analysis (PHA) Studies
- > Risk Governance for High Risk Scenarios
- > Process Safety Information (PSI) Implementation
- > Hazard Communication (MSDS labelling)
- > Implementation of "Management of Change"



Logistics/Transport Safety

- > Ensure all vehicles engaged for business are equipped with mandatory gadgets and have statutory documents
- > Take declarations from transporters and commitment from drivers for safe driving
- > Undertake defensive driving training programmes



Occupational Health

- > Ensure provision of adequate resources for occupational health
- > Identify occupational health hazards and manage associated risks to be contained to As Low as Reasonably Practicable (ALARP) levels
- > Conduct health surveillance, sickness, absenteeism, rehabilitation and recovery programmes

The Safety Governance Structure has resulted in an increased involvement, ownership and buy-in from sub-committee members and an understanding that safety is everyone's responsibility, with the line function at the forefront of the safety management system.

Safety Performance

(LTIFR per million man-hours)



Adequate IT infrastructure for strengthening the performance and effectiveness of various safety processes, viz. Safety Observations, Incident Investigation, Contractor Safety Management, Permit to Work, Training, etc., have been put in place. High-level dashboards have been generated to monitor the progress of these processes.

Review and Audit

In addition to legal compliance audits, we ensure effective implementation and compliance of the released standards and procedures through periodic self-assessment and second-party audits. Auditing skill enhancement for inter-unit/second-party audits is addressed by conducting internal auditor training and hand-holding programmes. Third-party audits are conducted for critical areas of concern such as electrical and process, among others.

Safety Scorecard and Linkage to KRAs

In order to strengthen the line function's ownership for safety processes, a safety performance scorecard system was initiated for all employees (up to section head). This scorecard is reviewed every six months by respective supervisors/managers and is linked to the performance cycle of the employee.



Safety Communication

We have introduced different mechanisms for creating awareness, learning, sharing of incidents, safety processes and practices:

- > **Safety alert notice** – To communicate incidents
- > **Journey to zero** – To communicate good practices and safety awareness

> **Safety portal** – To communicate safety initiatives, standards, policies, good practices, etc.

> **Safety campaign** – To increase safety awareness for identified critical aspects

14. TECHNOLOGY AND R&D

Viscose is setting new benchmarks in raw material and chemical consumption, well below the stringent EU BAT consumption norms for water, pulp, caustic soda, zinc and others, and is leading the industry in a new direction for sustainable production practices.

Our in-house R&D centres contribute to the versatility of our products and their applications through technology. The state-of-the-art Clonal Production Centre at the Harihar mill site, which produces high-yielding, fast-growing and, most importantly, disease-resistant clones of eucalyptus, speaks volumes about our commitment to innovation. These clones are supplied to farmers in Karnataka through an agro-forestry model, encouraging community farming.



State-of-the-art Centres Offer Creative Solutions across the Value Chain



The high-quality Liva — a man-made fabric from natural fibres, produced from wood pulp and a natural renewable resource — is also a result of our strong product innovation and processes.



Livaeco™

We launched Livaeco™, a soft, breathable and fluid fabric that is manufactured with sustainability at the core. Starting from sourcing of raw material through sustainable forestry to achieving benchmark resource efficiency using a closed-loop process, and from lower water consumption to GHG emissions, Livaeco™ allows complete traceability of the value chain and can be identified in stores by the green tag on the garment.



LIVASno

LIVASno is manufactured using an innovative method that improves the whiteness index of the fibre significantly, using an environment-friendly process. This process requires lower energy and time compared to the conventional process to achieve the higher whiteness index.

Purocel Antibac Plus

AntiBac Plus is a unique fibre that restricts the growth of odour-causing bacteria in non-wovens. This specially treated fibre eliminates the need for antibacterial treatment without compromising on purity, hygiene and performance. The fibre also retains its efficacy after standard spunlacing.

Process Improvement

We continuously strive to improve customer experience by deploying specific technologies that enhance the performance of the non-woven spunlacing process, achieve dope-dyed fibre uniformity leading to higher efficiency yarn spinning and quality, and improve spinning performance for greige fibres.

The Domsjö plant (a JV) is increasing pulp capacity by debottlenecking evaporation through improved efficiencies and reduced process flows. Domsjö is also improving pulp quality by stabilising wood chip uniformity, improving bleaching to reduce viscosity variations, and standardising mill operating strategies. These improvements contributed to our pulp specialty products growth with the introduction of new customers in filament yarn and casing applications. In addition, the new pulp quality brand, Ultra, is now fully accepted by a cellulose acetate customer.

We continuously invest in areas that enhance productivity, improve efficiency and lead to better resource optimisation. In the reporting period, we focused on two major aspects:

a. Forest to Fashion Traceability

We introduced a system to trace the value chain — from pulp to fibre to the final garment. This will help track

the real-time movement of orders through the chain. In the first phase, this system was deployed for FSC® Certified VSF for global brands and subsequently for Liva in the domestic market.

b. Fibre Recognition through the Value Chain

A revolutionary solution for verifying the origin of a product, this unique technology enables customers to identify the fibre in the garment with complete traceability from wood-to-fibre-to-garment and enhances the trust of global VSF brands.

Key Achievements of Our Process Improvements

- > Higher quality and wider shade range of spun-dyed fibre
- > Reduction in fault levels in solvent-spun cellulosic fibre

Our Excel® project reached a crucial milestone with the commissioning of the new 45 TPD plant based on the environment-friendly solvent spinning technology developed in-house. The new technology offers a higher performance product with improved sustainability features. This plant has set the stage for a rapid take-off of our technology in the coming years.

15. PARTNERSHIPS



Viscose is a customer-centric brand.

Engagement Initiatives Undertaken by Viscose

- > Mission Happiness is an umbrella of various engagement initiatives undertaken on a real-time basis to deliver a positive and uniform customer experience
 - Listening kiosks — Electronic records of every feedback call, which can be accessed by any employee at any time, via remote customer-listening kiosks, installed across all domestic unit shop floors and regional offices, to help understand customer experiences
- > ConvergeX was the first Non-woven Value Chain Partner Meet that was organised by Viscose. The event was attended by key members from the entire value chain of Non-woven Wipes. The objective of the conference was to understand the challenges and opportunities in the non-wovens and wipes market

- > Formed a first-of-its-kind value chain integration and engagement platform called Liva Accredited Partner Forum (LAPF). The engagement is focused on improvement in product quality, service orientation, innovation and improved environment footprint, like Detox 2020, across the value chain
- > We partner with non-profits, NGOs and Think Tanks doing research and advocacy in fashion sector, to set sustainability targets and goals. We proactively work

towards achieving the standards set by leading organisations in fashion sustainability such as Sustainable Apparel Coalition (SAC), Canopy Planet Society, Textile Exchange, Zero Discharge of Hazardous Chemicals (ZDHC) and Changing Market Foundation. As a result of our close association with these organisations, we monitor our activities and carry out comprehensive self-assessments on which we develop our future roadmap.



Sustainable Products and Circular Economy

Innovation happens when we listen to our customers carefully and commit ourselves to help them overcome their challenges. The spirit of innovation is fuelled by an open culture in the organisation with a diverse global workforce.

Our research enables us to continuously and consciously develop new products that are not only high on performance, but also utilise less resources in production and

usage. Today, we are front runners in developing innovative and sustainable products while addressing the needs of consumers in every segment.

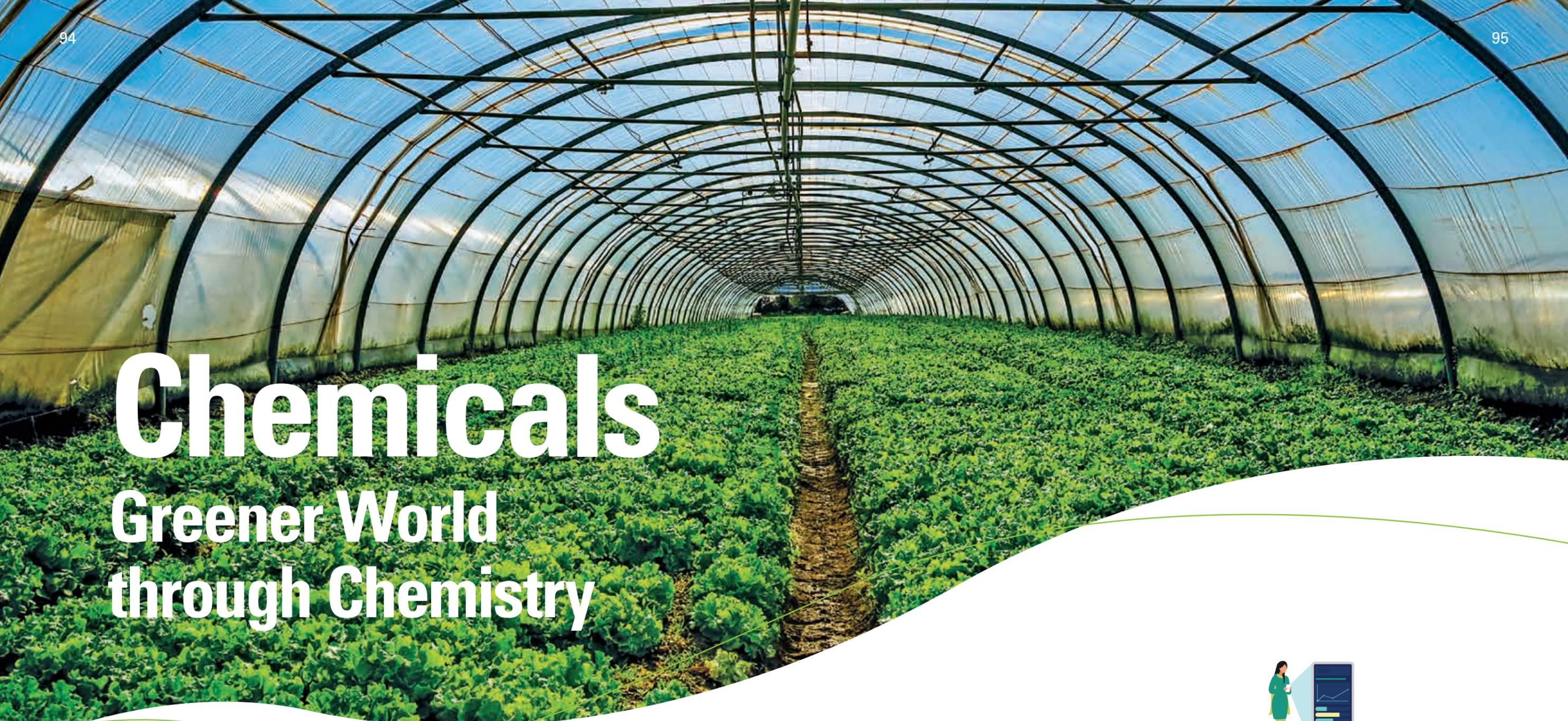
Initiatives

- > ~90% of energy utilised in pulp making is from renewable sources
- > Introduced energy-efficient measures and technologies in viscose manufacturing

- > Expanded the state-of-the-art lyocell manufacturing plants
- > Ensured sustainable forestry to promote sequestering of carbon and created CO₂ sinks to reduce global warming

Chemicals

Greener World through Chemistry



Implemented ZLD at Nagda and Renukoot plants



Continuous focus on improving efficiency across businesses



Putting in significant efforts in energy conservation using sixth-generation electrolyzers with the lowest power consumption



Real-time monitoring of trucks and tankers carrying chemical products from plants to customers through Central Control Tower and the mobile app ABG Suraksha

Chemicals Business

Grasim forayed into the Chemicals business to manufacture caustic soda to be used as an input in VSF production and alumina refinery. Since then, the business has grown multi-fold to become the largest caustic soda producer in India.

1. PRODUCT PROFILE

Chlor-alkali units manufacture products that support and fulfil the requirements of industries, including aluminium processing, pulp and paper manufacture, and water purification, and in the production of hydrogenated fats.

Caustic Soda

Applications

Alumina refineries, viscose rayon, sodium polyphosphate, sodium silicate, sodium sulphite, monosodium glutamate, refinery, soap, detergent, and pulp and paper

Chlorine

Applications

Sodium hypochlorite, calcium hypochlorite, poly vinyl chloride, isocyanates, polycarbonate and chloromethanes epichlorohydrin, poly-aluminium chloride and chlorinated paraffin wax

Hydrochloric Acid

Applications

Food-grade hydrochloric acid finds use in the production of food ingredients, food additives and in sugar and brewery industries. Industrial grade finds application in metal pickling, latex coagulation, dyestuffs, leather treatment, petroleum refining, galvanising, floor cleaning products and water treatment

Epoxy

Applications

Civil coatings, composites (wind energy blades and aerospace); adhesives; paints; and electrical, electronic and food packaging coatings (cans and tetra packs)

We cater to speciality applications with a unique range of chlorine derivatives and performance chemicals.

Water

- > Coagulation
- > Disinfection
- > Hygiene and Clarification
- > Bio-Security
- > Recycle and Reuse for ETP / Sewage Treatment Plant (STP)

- > Poly-aluminium Chloride Variants
- > Calcium Hypochlorite
- > Chlorine (Liquid)
- > VYTAL 2810, SD+ and A971
- > VYTAL HBC SUPRA
- > AQUA ARMOR C, D, D+ and CAL+

Plastics

- > Flame Retardant and Plasticiser
- > Flexibility Solutions
- > Extreme Pressure Additives
- > Flexibiliser and Filler

- > Chlorinated Paraffins

Food

- > Leavening Agent
- > Degumming
- > Clarification
- > Mineral Supplement
- > Acidulant in Beverage Production
- > Toothpaste — Abrasive Properties

- > Calcium Phosphate Derivatives

Industrial

- > Drilling Mud Additive
- > Friedel Crafts Catalyst and Additive
- > Paper Solutions (Paper Sizing, Pulp Bleaching, Colour Lock Technology)
- > Water Softening

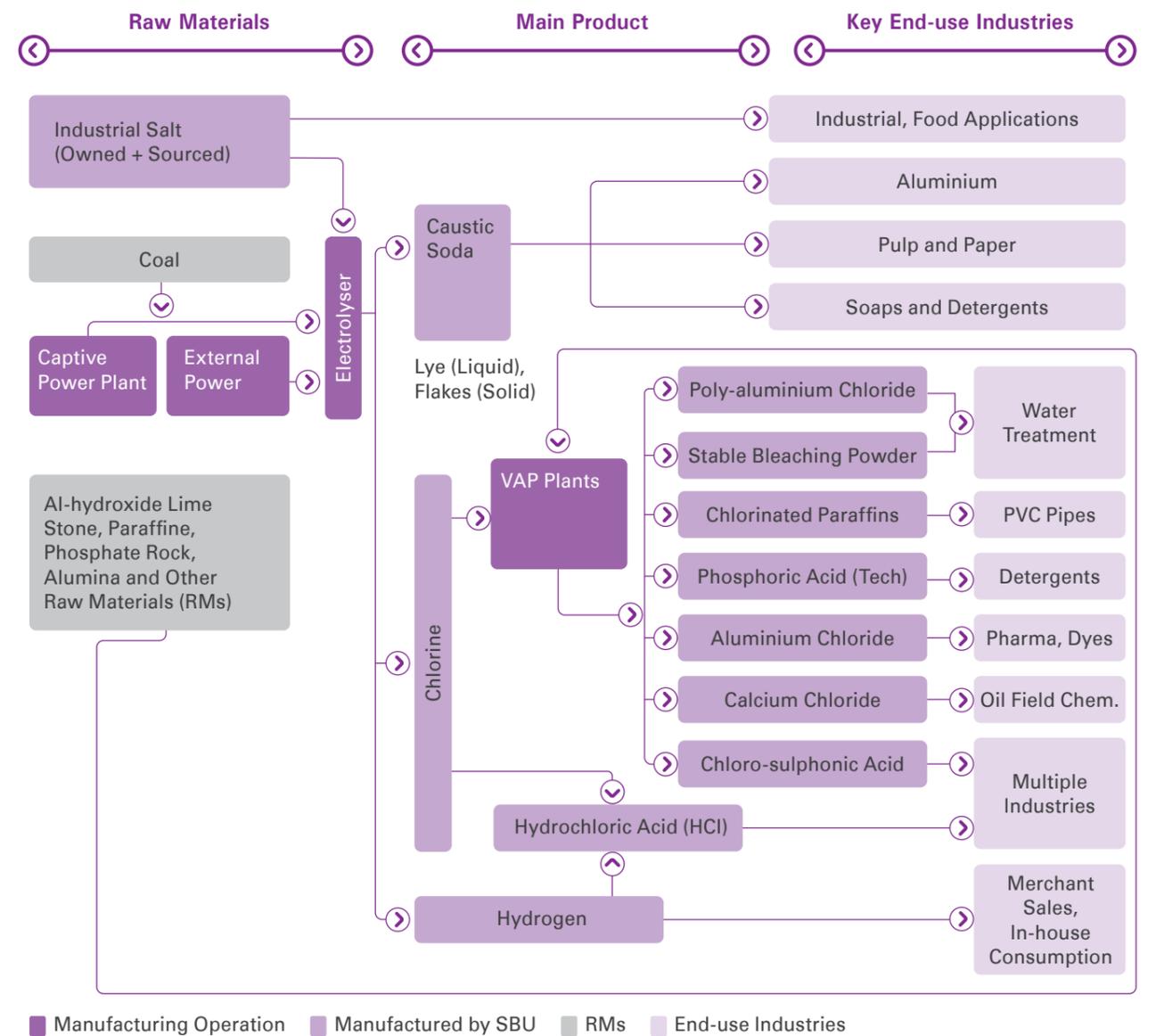
- > Caustic Soda
- > Calcium Chloride
- > Anhydrous Aluminium Chloride
- > Poly-aluminium Chloride Variants
- > Calcium Hypochlorite
- > Technical Grade Phosphoric Acid
- > Chloro-sulphonic Acid

● Applications ● Products

2. PROMOTING GREENER SUSTAINABLE PRODUCTS

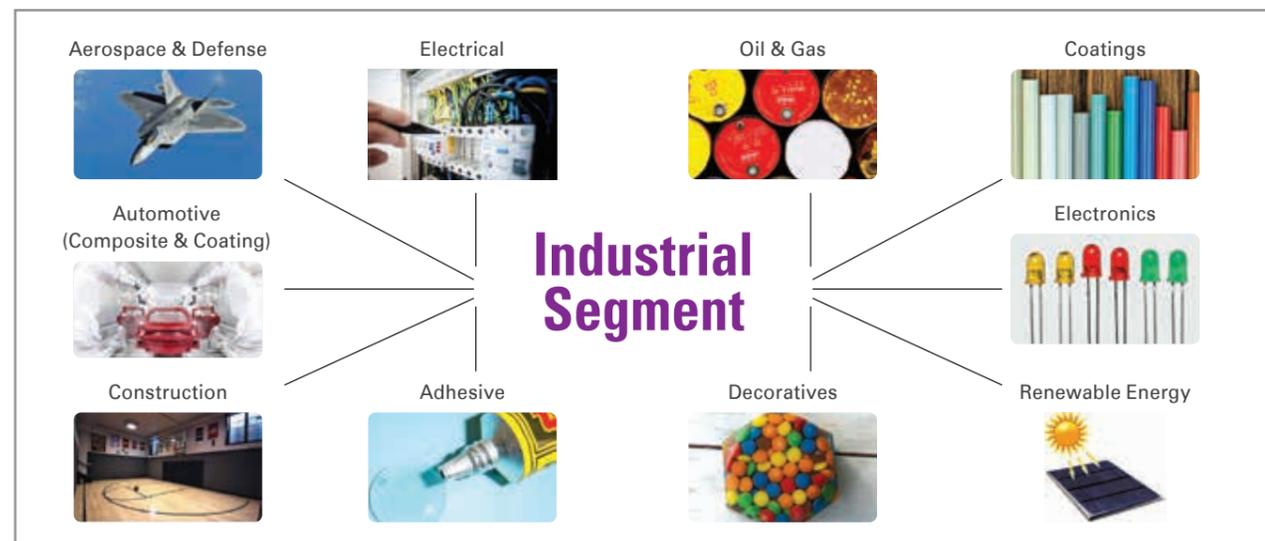
The chlor-alkali business has taken major strides in expanding the specialty chemicals and VAP portfolio in the past year. This will not only help us eliminate the safety risks associated with transporting liquid chlorine, but also lead to value chain integration while serving the critical demand of these chemical products across varied applications. Another way in which the business is adapting to the growing regulatory pressure is by eliminating the use of High Density Poly Ethelene (HDPE) bags in procurement of salt, which is now being transported in containers.

Chlor-alkali Business Value Chain

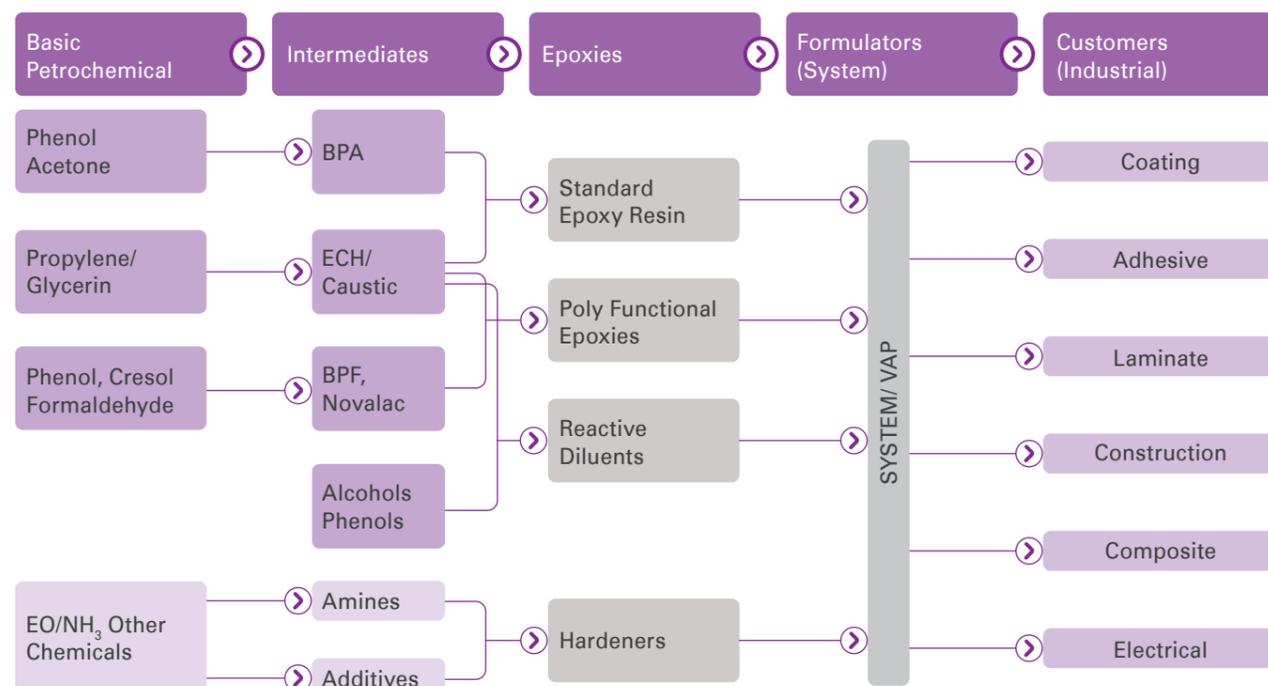


Epoxy Resins

We offer an entire range of epoxy products to customers, from basic products like liquid epoxy resins to VAPs like formulated resins, reactive diluents and hardeners, under the brand 'Epotec'. Our product applications directly contribute to the generation and growth of the renewable energy sector. The use of epoxy in the automotive and aerospace sector reduces the use of metal, and thereby the environmental impact of its use.



Epoxy Value Chain



3. RESPONSIBLE SOURCING

In the chlor-alkali business, we have started sourcing wash and super wash salt, which has led to a reduction in raw material consumption, waste generation and energy consumption, and membrane life extension.

4. RESPONSIBLE MANUFACTURING

We adopted the membrane-cell process for manufacturing chlor-alkali in the most environment-friendly way possible.

5. LIFE CYCLE ASSESSMENT (LCA)

LCA is an established technique to assess environmental impacts associated with a product across all stages of its value chain — from raw material extraction through materials processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling. It was undertaken for assessing the environmental impact of chlor-alkali products manufactured at the Vilayat plant.

The assessment was conducted using the cradle-to-gate system boundary, as per the ISO 14040/44 standard. Process-specific data collection questionnaires were prepared and data was collected for the manufacturing unit. Using the input-output method, the questionnaires assessed environmental impacts associated with resource consumption, energy consumption, emissions, and effluent and solid waste generation during the life span of the product. Finally, LCA models were created using the GaBi software for Lifecycle Impact Assessment, to quantify the environmental impact.

6. PRODUCT SAFETY

Transportation Safety

Chlorine is transported in tonners through road transportation or through pipeline. At the chlor-alkali unit, drivers are thoroughly trained on safety measures in case of any accidents and leakages of chlorine tonners. They are provided with a 'driver's passport', which comprises all the safety procedures and steps to be taken during an emergency.

We focus on optimising our logistics network by using GPS-enabled real-time tracking solutions in all our dedicated and non-dedicated vehicles and effectively use multi-modal transportation (mix of rail, sea and road) for our products, which helps reduce carbon footprint and logistics cost. We have institutionalised robust transport safety measures. We also provide defensive driving techniques to all drivers to ensure safe handling and transportation of all our products to meet customer requirements as well as provide periodical training on safe handling of our chemical and hazardous products by employees/agents of our customers.

7. PROTECTING THE ENVIRONMENT

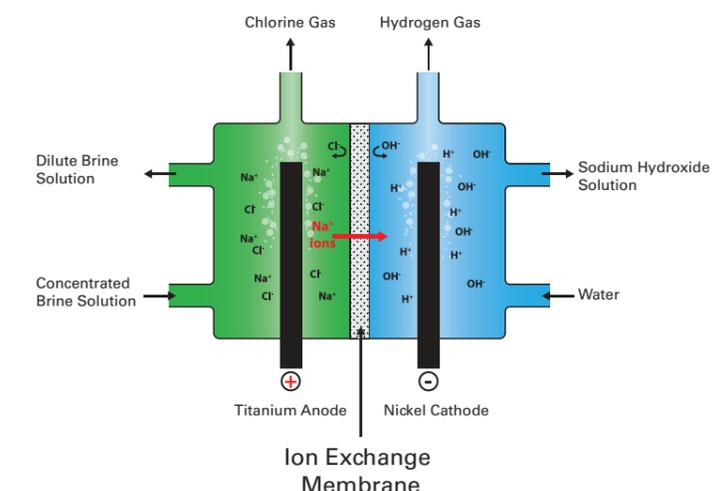


Our focus remains firmly on efficient energy utilisation, increasing renewable energy's share in our operations and improving our specific energy consumption norms. To meet these goals, we have developed KPIs and targets, which are monitored at both the unit and corporate levels. We undertook the following initiatives during the year:

- Adopted membrane cell process for manufacturing chlor-alkali in the most environment-friendly way
- In line with India's Intended Nationally Determined Contribution (INDC), we are increasing the share of renewables in our energy mix. In the reporting period, we consumed 35,929 MWh of renewable energy in our plants

In the chlor-alkali business, our membrane cell process is the least energy intensive. Maintaining optimal energy procurement and utilisation

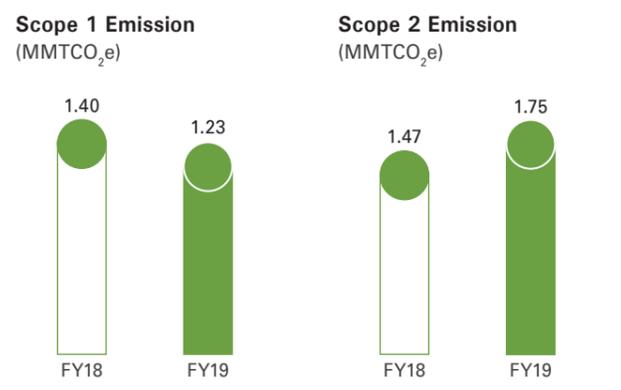
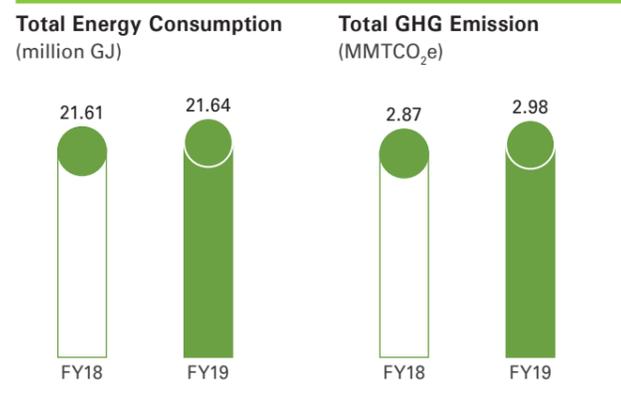
is one of our key priorities. We have developed a heuristics-based method for analysing the ageing pattern of the membranes and electrolyzers. This helps us invest ahead of the curve in the latest generation of electrolyzers and the upgradation of membranes. It has also led to a reduction in specific energy consumption. We are in the process of implementing a central manufacturing cockpit to monitor and regulate power consumption at all the plants.



Energy Conservation Initiatives

- Aligning our energy consumption as per various regulatory requirements and the Perform, Achieve and Trade (PAT) mechanism of Bureau of Energy Efficiencies (BEE). We surpassed the target set by the Government of India for the first PAT cycle and are moving ahead for the next phase
- Replacing equipment pumps, motors and other energy drives with the latest energy-efficient motors and drives
- Total energy and energy cost optimisation by vapor absorption machines and screw chillers and selection based on the configuration of sites
- Sourcing higher quality salt under wash/super-wash category, which led to a reduction in raw material and auxiliary chemicals consumption, solid waste generation and energy consumption by optimising the life of membrane, cathode and anode
- Evaluating, upgrading and optimising line sizes of various process streams, including chlorine to minimise energy losses, along with thermal and electrical energy requirements

Chemicals (includes Chlor-alkali and Epoxy) Energy Consumption and Emissions



Scope 1 Emission **1.23 MMTCo₂e** Scope 2 Emission **1.75 MMTCo₂e**

Disclaimer: The reported energy is consumption by individual businesses and does not consider into effect the sharing of energy between businesses of Grasim Industries Limited. For instance, the chlor-alkali unit at Nagda and Vilayat along with Epoxy unit at Vilayat are sourcing energy from pulp and fibre business of Grasim Industries Limited. Hence the apportioned energy consumed by pulp and fibre business is reported as its scope 1 emissions and the apportioned energy consumed by chemical business is reported as its scope 2 emissions.

8. WATER MANAGEMENT



Water is the most valuable natural resource on our planet and for life — supporting billions of plant, animal, and human lives and helping ecosystems thrive. We recognise the importance of reducing water consumption and improving water quality to optimise our environmental stewardship.

The WASH pledge, endorsed by World Business Council for Sustainable Development (WBCSD), is designed to meet a scoring system based on Self-Assessment Questionnaires with a maximum score of 2.0. The Chemicals business achieved a high score 1.85 for FY19.

With the vision of providing the basic needs of safe water sanitation and hygiene to all employees as well as to the communities living in and around our operations, we have undertaken several initiatives:

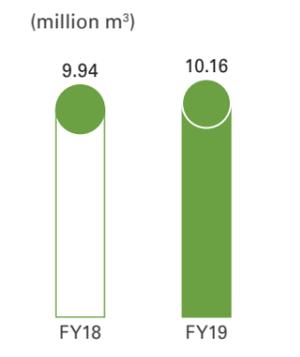
- Carried out water conservation projects at all units
- Instituted measures to recycle and reuse wastewater, and reduce consumption; optimise water consumption by modifying processes and adopting new technologies
- Increasingly discharging treated wastewater within premises (gardening, toilets, floor cleaning and willett pump cooling)

- Conducted Comprehensive Marine Audit annually since 2010 at coastal operations to ensure no negative impact on marine life and ecosystem
- For effective control of effluent and emissions, we have installed at various operations:
 - (i) Steam stripping systems
 - (ii) Deep hydrolyser
 - (iii) Activated carbon filters
 - (iv) Neutralisation, equalisation and ionisation processes for condensate
 - (v) Natural oxidation based sewage treatment system and gas flaring system

Water-related Impacts

We are focused on water-related impacts of our operations. Our overall specific freshwater consumption (per tonne of caustic reduced 7.9% y-o-y in FY19).

Water Withdrawal



Sustainability Risks and Water Stress

We have deployed a GIS-based in-house sustainability risk analysis tool, GeoSust, to understand our critical long-term sustainability risks. This specially designed tool also helps determine the suitability of prospective locations for setting up plants. Currently, the tool supports risk mapping related to water, biodiversity and natural catastrophes based on Indian as well as global datasets.

Water risks comprise groundwater and surface water. Groundwater issues include observation wells, yield, aquifer lithology, net availability, notified areas, etc. Surface water issues include quality, availability index

and baseline stress, among others. Aqueduct global data incorporates realistic current and future scenarios. This activity allows us to evaluate the existing strategy and make them more robust for the future.

The biodiversity risks dataset has been taken from IBAT. It includes sensitive zones, threatened species, nearby hotspots and site distances to protected hotspots. Natural catastrophic data, which includes global cyclone, earthquakes, flood risks and landslides data, help the business with disaster preparedness measures.

Zero Liquid Discharge

Project: ZLD at Nagda

ZLD is a water treatment process in which all wastewater is purified and recycled, thereby leaving zero discharge at the end of the treatment cycle.

Our chemical unit at Nagda faced water shortage during summers and particularly in the peak seasons of April, May and June annually. Given Nagda zone's low water table, there is a restriction on the consumption of groundwater as well. Additionally, the unit faced the challenge of managing industrial effluent (mostly coming out of cooling tower blow downs, ion exchange regenerations and RO reject).

In order to achieve the ZLD requirement by March 2018, we adopted the 4R (Reduce, Reuse, Recycle and Recover) methodology through:

- > Three-stage RO designed to recover maximum water through membranes (saving 100 m³/day)
- > Steam condensate from CCU used as feed for hydrogen-fired boiler and in brine preparation (saving 100 m³/day)
- > Vapour condensate from Caustic Soda Flakes (CSF – 2 and 3), which is processed as a feed to Mixed Bed Unit (MBU) finally to produce DM water (saving 190 m³/day)
- > Vapour condensate of CSF – 1, which is used in hypo preparation, brine preparation in MC-2 Plant and SBP Hypo Plant (saving 60 m³/day)
- > Optimised water consumption in cloth cleaning from 15 m³/day to 1 m³/day by changing flexible hose pipe water (uncontrolled) washing to tub washing (controlled) and reutilising this 1 m³/day of water in alum preparation
- > Usage of seal water or recycled water for priming of washery pumps instead of filter water
- > Reused wash basin water in gardening
- > Internally treating tonner washing water, which contains iron, through sand filter and sand bed and sending it back to RO for reuse



- > Reduction/recovery of effluent at source by:
 - (i) Increasing Ion Exchange Column regeneration frequency from 24 hours to 48 hours
 - (ii) Re-using MBU regeneration alkaline effluent in brine preparation
 - (iii) Phase-wise cleaning and repair of storm water drain along with blocking of source
 - (iv) Identifying effluent sources and rigorous quality/quantity monitoring at each section
 - (v) Timely plugging of leakages (be it major or minor)
 - (vi) Extensive exercise for optimising MEE feed quantity by installing various stages of RO, resulting in reduction in MEE feed from 330 m³/day to 120 m³/day

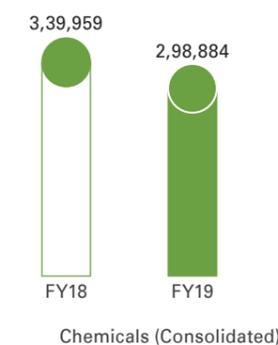
This was achieved through effective coordination with our suppliers, timely procurement and speedy implementation.

9. WASTE MANAGEMENT

All units stringently practice the segregation of hazardous and non-hazardous wastes at source. The waste generated is stored in a designated area, which is maintained in a prescribed manner, including safeguards such as impervious floors to prevent soil and water contamination. Hazardous waste is duly disposed through authorised vendors registered with the pollution control boards.

The chlor-alkali business implemented a Sulphate Removal System (SRS) at Vilayat, which contains membrane technology and reduces the waste generated by circumventing the process required to add additives to remove sulphates, thereby reducing the waste generated. Real-time monitoring of emissions and regular submission of data on quality of discharge, as per set legal norms, is undertaken.

Total Waste Disposal (MT)



Reduction in Generation of Waste Quantity

Project: Removal of moisture for waste reduction at the Epoxy unit, Vilayat

The production of Liquid Epoxy Resins (LER), our main product at the Epoxy unit, leads to waste generation of various impurities such as waste polymer, wastewater and product waste. This occurs during the reaction stage of refining and separation. Waste polymer is typically collected in a storage tank. However, this tank contains moisture, which adds to the weight of the waste.

To reduce this moisture, the waste polymer is collected and separated into jumbo bags. This results in moisture content reduction to 50-60%. To further reduce the moisture

content and resultant quantity of waste generated, a paddle drying system was adopted. This led to a reduction of moisture content to an average rate of 36% from the previous 50-60%.

During the year, 32,700 kg of wet waste polymer was processed using this method and 20,770 kg of dry waste polymer was collected.



Waste Utilisation for a Circular Economy (Fly Ash Utilisation)

Project: 100% utilisation of fly ash in cement industries to attain resource efficiency for achieving a larger objective of circular economy

The cement industry utilises fly ash as an alternative raw material. Cement industries in the proximity of our units were approached and provided samples for quality analysis. One of the challenges faced in executing this project was maintaining the specifications of fineness and colour of the fly ash, as required by the cement industries. This was successfully achieved by modifying the coal blend, grinding and ESP units of the power plant.

The project initiated in FY17 with 34% fly ash being sent to cement industries, increased to 99% in FY18 and the target of 100% utilisation of fly ash was achieved this year by our

Veraval unit. This solution ensured safe disposal of hazardous waste, supported principles of circularity by encouraging the utilisation of waste as a raw material for another industry and at the same time, helped reduce waste disposal expenses, as the waste was sold to the cement sector as an alternative raw material and generated revenues.

Similar initiative is being taken at Rehla and Renukoot units.

10. OCCUPATIONAL HEALTH AND SAFETY

We conduct regular performance reviews and test procedures, and raised awareness through open communications, as part of our commitment to further improve our health and safety management.

Initiatives for ensuring healthy lives and promoting well-being

- > Pre-employment medical examination and regular health monitoring, training and awareness
- > Assessments at manufacturing sites for evaluation of health risks and safety hazards
- > Periodic screening, testing and health counselling to identify and control health problems
- > Health and safety committees formulated at two levels – shop floor safety committee and central safety committee
- > Best practices established by DuPont in workplace safety and Process Safety Management (PSM) adopted across the chlor-alkali and epoxy manufacturing facilities
- > Emergency preparedness plan in place
- > Safety performance provided an important place in performance appraisal and is part of KRAs

We believe in following a proactive approach to managing workplace safety and health. To lay out a standardised and uniform procedure, safety standards have been developed and uniformly deployed across all our units, e.g., Personal Protective Equipment (PPE), Permit To Work (PTW), Work At Height, Confined Space Entry, Material Handling, Hot Work, Job Safety Analysis (JSA), Scaffolding, Excavation, Incident Investigation, Contractor Safety Management and Lock Out Tag Out (LOTO), and General Rules and Safety Principles.

Our Principles are Zero Harm, Zero Losses and Zero Defects

We value our employees, partners, communities and the environment. Good workplace, process and transport safety management should be followed in letter and in spirit, beyond compliance.



Emergency Preparedness

With the objective of preparing for and managing emergencies, effectively, a robust emergency / disaster action plan has been prepared by the team. To ensure that people are always ready for an emergency, regular mock and fire drills are conducted and emergency information is displayed at prime locations in the plant facilities and at corporate offices. Self-contained breathing apparatus are provided for handling an emergency at all units.

Visitor Safety

Visitors' safety instruction cards are distributed to visitors along with the visitors' gate pass and safety helmet. Instructions are also displayed at key locations at the plant. A visitor's safety film is part of the visitor's safety induction.

Safety Committee

Safety governance structure is established and monitored at regular intervals, involving all levels of employees. To sustain the safety culture at work, safety action meetings are conducted by workers themselves to solve day-to-day safety issues proactively.

Some of our operational units have other safety committees as well. We have a safety governance structure with a Steering Safety Committee. Similarly, there is a shop floor Safety Committee at the department level. Some of our operational units have other safety committees as well:

- > Steering Committee (business level)
- > Apex Safety Committee (unit level)
- > Safety Sub-committees

Safety Performance

Parameters	FY19
Number of Fatalities (Directly Employed)	1
LTIFR per million man-hours	0.17

Project SMILE

Safety is the most critical aspect for our business operations and we continue to explore and implement programmes to improve safety standards across our operations. Under the Transportation and Distribution Safety (TDS) of Hazardous and Non-Hazardous Chemicals (following the norms of Responsible Care Distribution Code), we launched Safety Measures in Logistics External (SMILE) at the Vilayat unit. Some of the initiatives under this project are:

- > **Driver Management:** Spot briefing at site prior to loading procedure; group-training upgraded with focus on handling of corrosive products
- > **Fleet Management:** Stringent checks at gates introduced, with escalations to be closed with approvals from the senior management at the unit
- > **Product Safety:** Assessment of the route is undertaken, the journey is planned beforehand, and driver fatigue managed by restricting driving at night

In the reporting period, the project achieved:

- > Project Charter Rating at 73.2%
- > TDS compliance on dedicated vehicles: 89.3% in March 2019, up from 63% in August 2017
- > Project SMILE rolled out at all chlor-alkali units

Due to our relentless focus on improving safety, workplace injury fell in the reporting period.

11. TECHNOLOGY AND R&D

Our innovation emphasis is on continuous product quality improvements, customisations, yield improvements, responsible use of resources, sustainable technologies, improving energy efficiency and enhancing plant productivity. Over the years, we have focused on customer-oriented R&D, and providing solutions and solving problems at customer sites. Our R&D team also delivered improvement in existing processes in terms of efficiency and quality. This has benefitted the operating plants, not only on costs but also on setting better safety and environmental standards.

We have successfully registered eight patents across the Chemicals business. Our R&D centres are recognised by the Department of Scientific & Industrial Research (DSIR), Government of India, and are ISO 9001:2000 certified. These centres also collaborate with Aditya Birla Science & Technology Company (ABSTC) as well as external institutions.

During FY19, eight patents were filed as per details given below:

Business	Patents	Purpose
Chemicals: Chlor-alkali	4	Water treatment and beneficiation Effluent treatment chemical for recovery and reuse Fire retardant, immunisation and anti-infection clean chemicals
Specialty Chemicals and Epoxy	4	Biodegradability, recovery of constituent polymer and filler-recyclable and reworkable resins

We are focusing on building innovative products, improve existing technologies, creating a platform to strengthen core businesses, and creating and expanding into synergistic opportunities. The underlying theme is that we not only want to be big in our customer's lives, but we also want to be essential in their lives through innovation and R&D that focuses on improved and targeted functionality, energy conservation, better resource management, and recovery and reuse of waste products that are safe and sustainable

Specialty Formulations and New Products

We are a pioneer in developing several specialty formulations for water treatment, which are customised to specific industries such as sugar, paper and pulp, oil refinery, edible oil, textile, dye and aquaculture. These formulations have been successfully commercialised in refinery wastewater treatment, handling of dispersed dye residue and processing of ceramic ingredients, among others. There are at least five more formulations in the pipeline, ready for commercialisation. Such specialty formulations not only

differentiate us from competition, but also lead to higher realisations than the base product. Our water treatment portfolio was further strengthened with the successful designing and commissioning of a new product during the year.

Focused Market Development

Our sales and marketing team focuses on gaining deep understanding of customer processes and product applications and provides customised solutions. The marketing team identified nascent but potentially high-growth segments, such as

Our emphasis is on specialty chemicals, application development and services. Some examples are:

- > Water-based environmentally friendly epoxy resins and their application in lightweight composites
- > Surface treatment chemicals, water treatment specialty chemicals and additives that are used to treat industrial and city effluents in their treatment plants, disinfectants and sanitisation, and fire-retardant additives

We constantly focus on R&D efforts to develop new and innovative product applications to meet global customer requirements. We are conscious of the need to adopt principles of circularity and resource conservation, and have started taking initiatives in this direction.

Aquaculture and Public Hygiene. Unique value propositions and new brands were developed, and targeted marketing activities were conducted through workshops and technical discussions with aquaculture farmers in collaboration with the Centre for Central Institute of Fisheries Education (CIFE) and by conducting trials at mega religious congregations.

Process Improvement

- > The significant expansion in our chlor-alkali manufacturing capacity has increased the complexity in the system in terms of the

We have successfully completed registration of eight patents across the Chemicals business.

number of customers served and differences in cost of production of various units, among others. The production and distribution allocation process, which was earlier carried out manually at the regional level, has been revamped by introducing data- and analytics- based decision-making tools. This has improved process efficiency, contributing to overall profitability.

- > We undertook several initiatives to reduce input consumption for brine treatment and improve the quality of filtered brine through a secondary process such as ion exchange. Further, other process improvements such as filtration in brine treatment in stages, such as recycling of ion exchange effluent to reduce acidic effluent and recover alkaline effluent, were initiated. We partnered ABSTC

- > for enhancing salt quality with efficiency in brine treatment.
- > A multi-modal logistics plan was put in place to serve from our manufacturing plants on the west coast via sea and rail instead, substituting road transportation, which also helped reduce our environmental footprint from logistics.

Digitalisation for Network Optimisation

Implementation of IoT-enabled Transport Safety Cockpit

GPS has been installed in dedicated vehicles (with a Central Command Centre for all units in Nagda). This has automated real-time location tracking, turnaround time monitoring and transport safety compliance.

Integrated Margin Management

Deployment of this advanced tool for optimising end-to-end network has led to a reduction in criss-cross movements, maximising capacity utilisation of lower cost operating units, and reducing logistics costs and environmental footprint.

Central Manufacturing Cockpit

This solution will enable real-time and centralised process monitoring of all the units at Nagda, and advanced data analytics from DCS for individual units. Once deployed in the coming year, we expect to realise significant benefits such as reduction in energy intensity, optimum capacity utilisation and best batch repeatability.

12. PARTNERSHIPS

As a truly customer-focused company, we engage continuously with our customers to understand their requirements such as on-time delivery and high product quality. We strive to develop a customer-defined performance measure, with every employee – irrespective of hierarchy – being responsible for customer satisfaction. The team gauges the requirements of different cross segments and strives to provide tailored offerings.

Our Customer-focused Initiatives to Achieve Key Strategic Objectives

Uran: To establish chlorine in new applications, especially for disposal of difficult/hazardous effluents and sewage treatment that is an increasing area of concern in India

Sootra: Collaboration in new product development and partnership in joint projects with key accounts to ensure transition from a chemical supplier to a business collaborator

Atithi: To set up a Customer Service Centre (CSC) for acting as a single point of contact between the customer and the organisation for faster and accurate responses

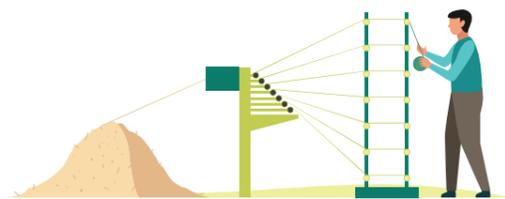
Swachh: To retail stable bleaching powder in small packaging for households / small enterprises (Procura™) and supply small bulk orders to hospitals (Hospicare)

Astha: Branding of specialty chemicals to create an identity for providing solutions to a customer through bundled products and services — a shift from product selling



Textiles

Indian Textile Powerhouse



The Wealth Out of Waste (WOW) programme has resulted in unique products using flax production waste to produce intimate blended yarn and linen-rich fabric



Working on a roadmap to zero programme for complete elimination of hazardous chemicals



Achieved WASH pledge score of 100%



Through the European Flax® label and audit process, we ensure that the flax we use for linen manufacturing is cultivated sustainably, with minimal waste

Allied Businesses

Textiles

Aditya Birla Textiles is a leader in the textiles, acrylic fibre and spinning markets. By investing in people, processes and technology, we have transformed from a commodity player to a business that creates unique, sustainable and value-added products.



1. PRODUCT PROFILE

Every hand that touches our fabric makes an impact on the product. Our workforce has honed their craft for decades. At Jaya Shree Textiles (JST), the engineers have created a legacy of innovation and operational efficiency. The clothiers and designers have brought to life visions of linen grandeur. This diverse talent pool is redefining the boundaries of textile brilliance. JST has become a

preferred textile company for wool tops, 100% wool and wool-blended yarns – both for weaving and knitting. JST is among the top 5 in wool combing and independent worsted spinning in the world. Worsted yarn is marketed under the brands RT Yarns, Nuvolana and Jayashree.

LINEN CLUB

Linen Club is a pioneering linen brand in India with a rich legacy of over six decades. With an accomplished in-house design team, including internationally acclaimed Italian designers, Linen Club produces close to 1,000 new designs every month. Certified by the European Confederation of Linen and Hemp (CELC), the only European agro-industrial organisation federating all the stages of production and transformation for linen and hemp, Linen Club has always prided itself for producing top-quality linen fabric. Linen Club's fabric range includes fine and super fine linen fabrics, which are among the best in the world.

Linen Club is a pioneering linen brand in India with a rich legacy of over six decades.



Our Product Stewardship policy mandates that our products be manufactured, used and managed until the end of their life in a socially and environmentally responsible manner. We carried out an LCA of flax used in linen manufacturing to better understand the areas of improvement.



2. RESPONSIBLE SOURCING

At JST, we source flax from Europe and wool from Australia. The lead times of these materials is high and thus, price fluctuations are an ongoing concern. We have adopted a price hedging mechanism by involving more qualified and certified suppliers in the procurement process. Certification requirements of our linen and wool include:

International Wool Textile

Organisation: Organic Wool and Animal Welfare certifications

Responsible Wool Standard (RWS):

It is a voluntary global standard that addresses the welfare of sheep and of the land they graze on.

OEKO-TEX®: It is a union of 18 independent research and testing institutes in textile and leather ecology in Europe and Japan. The institute carries out its accredited testing processes to suit specific target groups and in close cooperation with the manufacturers.

Global Organic Textile Standard

(GOTS): GOTS is recognised as the world's leading processing standard for textiles made from organic fibres. It defines high-level environmental criteria along the entire organic textiles supply chain and requires compliance with social criteria as well.

European Flax®: This is a standard for premium European linen fibre for all applications. It preserves, highlights and safeguards a uniquely European agriculture and industry, its regional origins and its inherent non-relocatable know-how.

ABSTC is the Research & Technology provider to various industrial domains, including textiles. Alternative materials for shade match, and chemicals for a chlorine-free product are being tested. We ensure that all our suppliers are certified, comply with legislations wilfully and practice sustainability within their systems and processes. All suppliers are assessed and audited based on environmental (water and energy) and social (human rights) KPIs. The ABY™ Centre of Excellence, along with other ancillary set-ups, is our R&D centre and works relentlessly towards making the supply chain greener.

3. RESPONSIBLE MANUFACTURING

We aim to deliver healthy products to our consumers while minimising our environmental footprint. To achieve this, chemicals management forms an important aspect of product design, safe operations and quality of effluents from our units. We have formed a chemical management team at both the units, tasked with safeguarding consumer health and chemical safety at workplace.

We adhere to a strict chemical management policy that prohibits the use of chemicals that are not appropriately tested and certified. Chemicals are managed through our IMS, following ISO standards and REACH requirements. Any known/identified toxic, harmful and bio-accumulative chemicals and substances are avoided.

Chemical Management

BLUESIGN traces each textile's path along the manufacturing process, making improvements at every stage – from the factory floor to the finished product. The Manufacturing Restricted Substance List (MRSL) restricts hazardous substances potentially used and discharged into the environment during manufacturing. It focuses at the beginning of the manufacturing cycle by prohibiting chemicals from entering the facility and thus, reducing the need for treating effluents.

Zero Discharge of Hazardous Chemicals (ZDHC)

The ZDHC Roadmap to Zero Programme is a coalition of fashion brands, value chain affiliates and associates. It aims to enable the global textile, leather, apparel and footwear manufacturers to substitute hazardous chemicals with safer ones in the production process.

Supply Chain Management

Challenges

- RM inventory was stored outside the JST unit and Finished Goods (FG) inventory was stored inside the unit.
- > Delay in production as RM had to be transported inside the plant
- > FG – Service quality parameters affected as the plant was situated in a congested area
- > Increased detention charges paid to transporters

Objectives

- Reduce
- > Logistics cost
- > Lead time
- > Production losses

Action Plan

- > Replaced RM warehouse with an FG modern warehouse at a transportation hub in Dankuni (Durgapur Expressway)
- > 100% RM shifted inside the plant
- > Logistics divisions of all SBUs brought under a single SCM
- > Replaced traditional transporters (GATI, Safex and Future Supply Chain) with faster service providers (Delhivery, Rivigo, Xpressbees, etc.)
- > Bar coding system implemented to reduce manual errors in picking and sorting, to optimise picking time and data transfer

Outcomes

- > No production losses
- > 24% reduction: ₹8.8/kg to ₹6.7/kg
- > Customer satisfaction – Reduced complaints
- > Real-time tracking and online visibility of consignments
- > Time reduction from 6-7 days to 4-5 days

4. PRODUCT SAFETY

Our policy on Product Stewardship clearly states that our products are to be produced, used and managed until the end of their lives in a socially and environmentally responsible manner to support the SDGs and our commercial goals to position in sustainable markets. Adhering to our policy, we have carried out the LCA of flax used in the linen manufacturing process to better collate the improvement points. We have eliminated the use of water-retted flax as our first milestone towards sustainably stabilising our value chain. We have the following accreditations: ISO 9001:2015, OEKO-TEX® for worsted yarns, EU Ecolabel Certificate and Woolmark certificate. We have a written Product Stewardship Policy and Quality Policy circulated among all our employees.

We conduct regular monitoring and evaluation exercises, to assess our customer needs, product knowledge



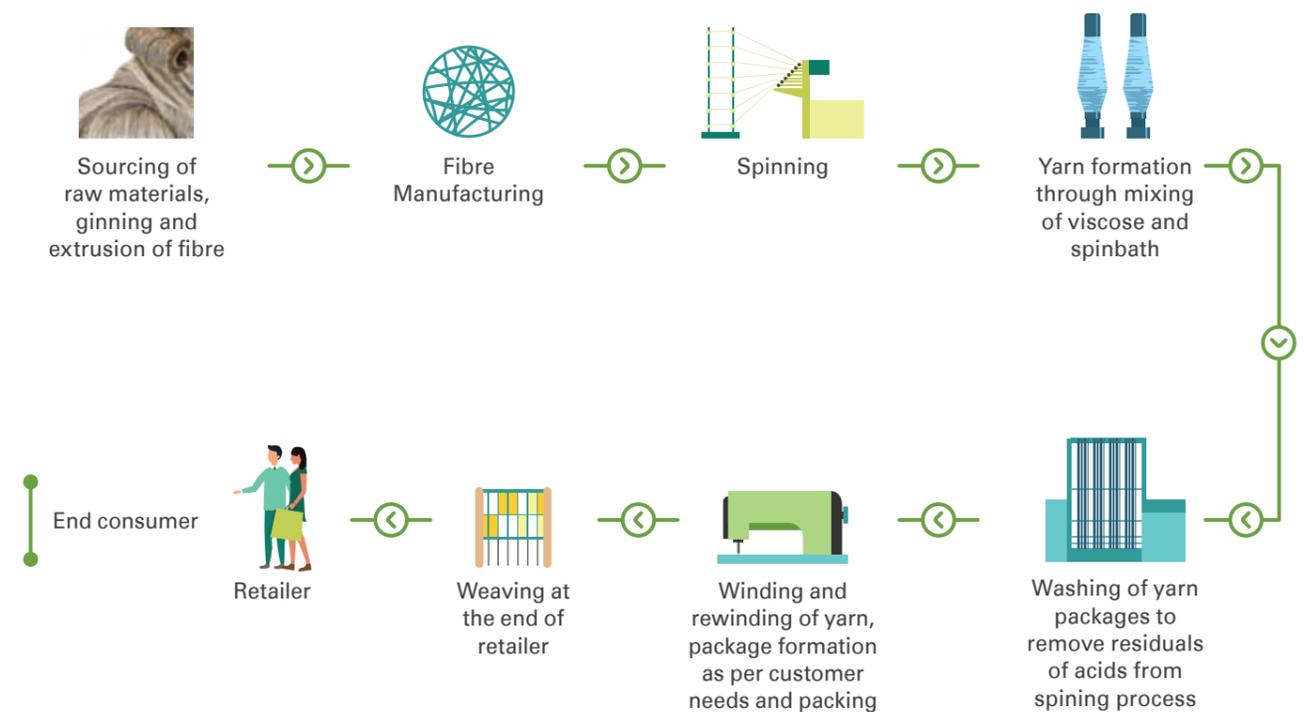
sharing sessions and to communicate extensively with our customers. Based on our customer feedback and external surveys and ABG standards, we have a design and development process methodology to develop new products. We also have robust procedures in place for customer complaint handling and internal customer satisfaction survey.

- > The Legal Compliance Management Plan ensures that our operations adhere to all national and international environmental laws and regulations
- > The Unit Head ensures effective implementation of the ABG standards. This includes procedures pertaining to energy

and carbon management, water management, solid and hazardous waste management, air quality management, noise management, etc.

- > Every month, we report key indicators pertaining to environment management to our top management for review and analysis
- > Under our responsible stewardship commitments, we aim to mobilise the infrastructure required to achieve 100% water recycling and ZDHC at both our units

5. VALUE CHAIN



6. PROTECTING THE ENVIRONMENT

We have written policies for environment, biodiversity, energy and carbon, and water stewardship signed by the top management and circulated among all our employees. Rooftop solar plant of 1.45 MWp has been installed and the second phase of the project, with a capacity of 3 MWp, is under process. This will reduce our grid dependency by 8-10%. Installations for condensate recovery and a flash steam recovery project to achieve operational efficiencies across the respective plants were employed following a thermal audit. We report key indicators pertaining to environment management to our top management for review and analysis.

We have also implemented the Environment, Health and Safety (ENHESA) module that helps us understand the changing regulatory landscape from an operational standpoint. Our constant endeavour is to create conducive, safe, protected and happy environments for all our internal and external stakeholders. Every manufacturing unit has determined its own trajectory to achieve a larger goal, a cleaner environment and a happier community.

Initiatives Undertaken for Energy Saving at JST

- Installation of rooftop solar plant of 1.6 MW
- Installation of steam accumulator in the steam system
- Reduced power consumption in humidification plant through mist water system pump
- Modification in the bleaching plant of linen spinning to increase production by 20% with the same energy
- Upgrading air pollution control devices to reduce air emission

Initiatives Undertaken for Energy Saving at VW

- **ETP Plant Power:** Modified water supply system in aeration tank to maintain the DO
- **Plant Lightning:** Replaced conventional lights with LED lights
- **Gill Box:** Timers installed in suction fan
- **H. Plant Power:** Optimisation
- **TFO Power:** Optimisation



7. WATER MANAGEMENT

We have targeted 100% water recycling at both our domestic textile units. At VW, a 200 KLD ETP plant is operational and has met the targets set for ZLD. The infrastructure for the ETP plant at JST is at its final stage of development and will be commissioned in FY20. The installation is planned in two phases of 500 KLD and 800 KLD.

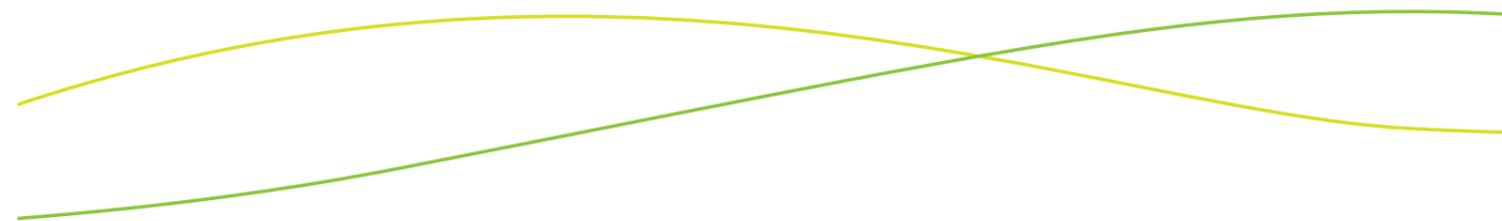
We have also made intermittent process installations that have further optimised our energy and water consumption. Following a thermal audit by Forbes Marshall, we have installed a steam accumulator to reduce our boiler load. The 15-20% reduction in steam consumption

has, in turn, lowered our fuel and water consumption. Further, we installed a flash steam recovery and condensate recovery.

The WBCSD Pledge for WASH at the workplace demonstrates best practices with respect to WASH as well as contribution towards SDG 6 (Clean Water and Sanitation). We are proud to be signatories to the WASH Pledge and are fully committed to its guiding principles.

8. WASTE MANAGEMENT

The idea of a circular economy is built on the recycle, reuse and industrial symbiosis. We are embracing circular economy principles through innovation, scalable solutions and unlocking markets for sustainable products. Our WOW initiative led to the birth of Cavallo and Mazury, intimate blends of linen and cotton. This has garnered accolades across ABG units under RePrism, an ABG award. We plan to scale up production in the coming years.



Reuse of Medium Density Fibreboard (MDF)

Challenges	Actions Taken	Achievements	Future Action
<ul style="list-style-type: none"> > Smell and dust while unloading cardboard packaged goods > Increased costs during monsoon as products need to be sun-dried > Heavy weight leads to high transportation costs 	<ul style="list-style-type: none"> > Procuring MDFs from retail outlets > Replacing cardboard with MDF completely to reduce costs > All retail stores across India are required to target at least 25% recovery 	<ul style="list-style-type: none"> > Savings of ₹18.54 lakh per annum > Smell- and dust-free board > Improved packaging and product presentation > Reduced transportation costs 	<ul style="list-style-type: none"> > Collection of MDF within stipulated time from showrooms located across India

This initiative has led to waste reduction, employee health and safety, and product proofing from seasonality. As MDF is generated as waste in ABG Retail, this has resulted in cost savings.

9. OCCUPATIONAL HEALTH AND SAFETY

OHS at JST and VW has seen significant improvements across various parameters. Better reporting of incidents, stronger risk management and evaluation tools, and employee and workmen interactions have been initiated. ABG Safety Management Standards, basis DuPont Safety Standards, are strictly adhered to at all units. We are compliant with OHSMS, ISO 45000:2018. The Heinrich Safety Pyramid is the basis on which we have designed and developed our safety procedures and have instituted a reporting mechanism for all the 13 Department Safety Committees (DSCs). The Central Safety Committee has oversight, with active involvement of the Unit Head, on any

issue or unsafe act resolution. There is a representation of employees and workmen in the safety committees (50% each).

We use the Hazard Identification and Risk Assessment (HIRA) tool to carry out Quantitative Exposure Analysis of the scenarios identified. Based on the analysis, action plans are prepared and implemented with short lead times. The weekly safety meetings address concerns related to the incidents reported and equipment health.

10. TECHNOLOGY AND R&D

The Indian textiles industry's future looks promising, driven by strong domestic consumption, healthy export demand and increasing innovations. India is now a leading supplier of yarn globally. Technology is also increasingly playing a key role in reshaping the textiles industry to meet the changing demand patterns and trends. Automation and AI have made their way, allowing companies to remotely monitor and control machineries as well as to collect and analyse data to further improve efficiency.



Product innovation at JST and VW is driven by our Value Creation Engine (VCE) developed by our central R&D team. VCE is a six-stage process that starts with idea generation and culminates in product launch along with market feedback. Product innovation is of two types: proactive and reactive. Proactive innovation involves market studies and product design initiatives to address potential improvement opportunities. Reactive innovation is highly customer-centric. It primarily draws inference from our various feedback mechanisms and addresses market demand for product changes or new product development.

We take a holistic approach to quality management. It begins with strict adherence to our Standard Operating Procedures (SOPs), coupled with a continuous process control mechanism. By leveraging IoT technologies and data analytics, we aim to further enhance product quality, worker safety and operational efficiency. We are implementing a real-time monitoring system at our plant, which will help optimise our operations.

Technology is also playing a key role in optimising logistics in our supply chain. Data collected from GPS-enabled vehicles is analysed to reduce lead time and mitigate risks of incidents on the road.

11. PARTNERSHIPS

Capturing Customer Feedback

It starts with a Web-/SMS-based survey, followed by a telephonic discussion with customers or value chain partners. This is carried out by a third-party interface. The survey also captures a quantitative Net Promoter Score (NPS-HI) and a qualitative Sentiment Score (SI) based on the feedback. This is done for all customers and partners throughout their engagement period, at an interval of 30-60 days. The issues or challenges thus identified are forwarded to the respective departments, where action plans are developed. Each manufacturing unit or regional office then sets up review meetings to consolidate the learnings and formulate a path for solution implementation.



Hello Bosstomer

Hello Bosstomer is an initiative under Mission Happiness. The objective is to encourage employees to contribute innovative ideas to solve business challenges. We decided to involve all employees, except those from the Sales & Marketing Department. These employees meet customers

across all the four product groups. Employees in managerial roles are handpicked. The primary objective is to better understand customer Moments of Truth (MOTs). Through these interactions, customer feedback is categorised as 'Areas of Improvements'. Upon prioritising, a First Person Responsible (FPR) is identified against respective improvement areas in consultation

with CEO / Unit Head / Function Head and action is initiated by the Operations & Marketing executives. After working on these areas for six months, these employees visit the same customers to update them about their MOTs. This novel, sincere and structured approach leads to immense customer delight.

Fertilisers & Insulators

1. PRODUCT PROFILE

Fertilisers

The Fertilisers business (erstwhile Indo-Gulf Fertilisers) is a leading agri-solutions provider across the entire agricultural cycle, from sowing to harvesting. 'Birla Shaktiman' is the most preferred brand among farmers in the entire Indo-Gangetic plain. The brand's success can be attributed to robust marketing, distribution and customer service network that comprises wholesalers, 'Birla Shaktiman' accredited retailers and 'Birla Shaktiman' service centres. The product portfolio has been expanded to cover the entire agriculture value chain to specialty fertilisers, crop protection products and seeds, and includes neem-coated urea (Birla Shaktiman), customised fertilisers (Birla Shaktiman Vardan), organic fertilisers (Birla Shaktiman Oorja), and plant health / soil health products.



Insulators

Aditya Birla Insulators is India's largest manufacturer of electrical insulators and is one of the top 4 insulator manufacturers globally.

As a key supplier to the power sector across countries, we touch millions of lives and enable access to safe and reliable power – the engine for economic development. We achieve this with steadfast focus on quality and reliability of our products, and innovate on both the products as well as the materials and processes to meet the evolving needs of our customers. Our manufacturing processes can be benchmarked with the world's best and are backed by stringent quality control and testing measures, to provide truly world-class products.

Key Products

Substation, Traction and Line Post Insulators

- > Solid core station post insulators
- > Traction insulators for railway electrification
- > Apparatus porcelain insulators (for circuit breakers, instrument transformers, condenser bushings and lightning arresters)

Transmission Insulators

- > Porcelain disc insulators
- > Pin and post insulators
- > Composite long-rod insulators

2. PROTECTING THE ENVIRONMENT

Fertilisers

We have undertaken several energy conservation initiatives at our fertiliser plant at Jagdishpur, Uttar Pradesh, to retain its status as the most energy-efficient plant.

Energy Conservation Initiatives

- > Replaced ammonia converter basket S-200 with S-50 to reduce pressure drop in the synthesis loop of ammonia plant, resulting in lower energy consumption in synthesis gas compressor
- > Replaced catalyst in High Temperature Shift (HTS) converter
- > Replaced conventional lights with LED lights in a phased manner
- > Installed the latest urea prilling bucket, resulting in a reduction in urea product temperature and generating power savings by stopping Bulk Flow Cooler (BFC)

Insulators

The Insulator business has undertaken several initiatives to improve heat utilisation in kilns by reducing the cycle time in the re-fired cycle of the kilns and automating kiln firing system from manual air/gas control to ratio control.

We have redesigned the metal cap weight and green body using software to impart manufacturing improvements. Special surface treated insulators are being developed for use in a highly polluted environment along with energy efficiency improvement in existing process in terms of using thermopack systems to improve thermal homogeneity and enable faster drying and cementing. With the development of a suitable glaze recipe, the dry finishing step has been eliminated, making the process more efficient.

Energy Efficiency at the Rishra Unit (Insulators)

Project: Energy Efficiency Project in Tunnel Kiln

Our objective was to save energy in one of the kilns. The specific fuel consumption for the kiln was 0.167 kg. On increasing the loading density, we observed degradation of the final product quality as well as other defects such as visual colour mismatch. We changed the burner orientation to increase the volume of reduction inside the initial reduction zone, without impacting quality of the final product, by:

- > Increasing the loading density of the kiln car and maintaining it throughout the month
- > Modifying refractory support and loading the wares like Zigzag to increase the loading density from 815 kg/car to 850 kg/car
- > Reducing the refractory weight of arch (by 3kg/car)
- > Measuring the ratio of air and gas measured and monitored in all shifts and action taken to counter changes
- > Identifying excess volume of air in cooling and closing the open atmospheric air suction ports to avoid

reduction in air temperature flowing into the channel dryer to heat up green wares. Previously, the burner was run to increase the air temperature, but after this modification in kiln, hot air suction temperature increased 15 degrees from 140 to 155, thereby reducing channel dryer burner usage

These actions helped maintain kiln parameters without affecting the quality of the final product, while increasing productivity by 554 MT/annum. Other outcomes were:

- > Specific fuel consumption fell from 0.167 kg to 0.161 kg, resulting in cost savings of ₹29.58 lakh/annum
- > Loading density increased from 815 kg/car to 850 kg/car
- > Quality of final product improved (firing rejection 0.25% decreased) and there were cost savings of ₹13 lakh/annum
- > Dryer fuel consumption of 14.6 MT/annum fell, resulting in fuel cost saving of ₹6.1 lakh
- > Natural resource conservation and reduction in Scope 1 and Scope 2 emissions due to reduction of fuel consumption

3. WATER MANAGEMENT

Water Conservation

Water Recycling at the Insulator Unit

The insulator unit has successfully undertaken various programmes for water conservation and management. For 80 MT/day of net production, the unit was consuming 1,084 KL water a day for cooling and testing purpose, which was then drained out. This included processed water and domestic water. Also, power consumption was 309.2 kW per day for operating water pumps/motors. To address this issue, we started water recycling and reuse at the source.

An area was identified for this project, following a feasibility study. We undertook the following five initiatives:

1. Recycle and reuse of water in the hydraulic proof testing machine (old and new shed)
2. Water re-circulation in ferro unit cooling (old and new) from the cooling tower

3. Water re-circulation in kiln (cooling of heat exchanger, circulation and combustion fan)
4. Reuse wastewater from the RO plant for bathroom flushing
5. Reduce water consumption by 50% in the willet pump (reciprocating type) gland cooling by adopting innovative methods

Preventive steps were also taken to replace obsolete water pipeline and prevent water leakage. These efforts resulted in savings of ~284.26 KL water per day, reduced reliance on borewell for freshwater and, in turn, lowered power consumption from 309.2 kW to 257.3 kW.

4. WASTE MANAGEMENT

All units stringently practice the segregation of hazardous and non-hazardous wastes at source. The waste generated is stored in a designated area, which is maintained in a prescribed manner, including safeguards such as impervious floors to prevent soil and water contamination. Hazardous waste is duly disposed through authorised vendors registered with the pollution control boards.

5. TECHNOLOGY AND R&D

In the Fertilisers-Agri business, the emphasis of R&D is on providing better solutions to the farmers with neem-coated urea, soil- and crop-specific fertilisers, and higher efficiencies of primary and secondary nutrients, along with internally tested and certified seed and agrochemicals.

Another step in technology absorption by the Fertiliser business is replacement of the ammonia converter basket from S-200 to S-50, to improve conversion and reduce pressure drop in the synthesis loop of the ammonia plant. We worked with external experts for energy solution, leveraging the latest generation technology for increasing the efficiency of rotary machines.

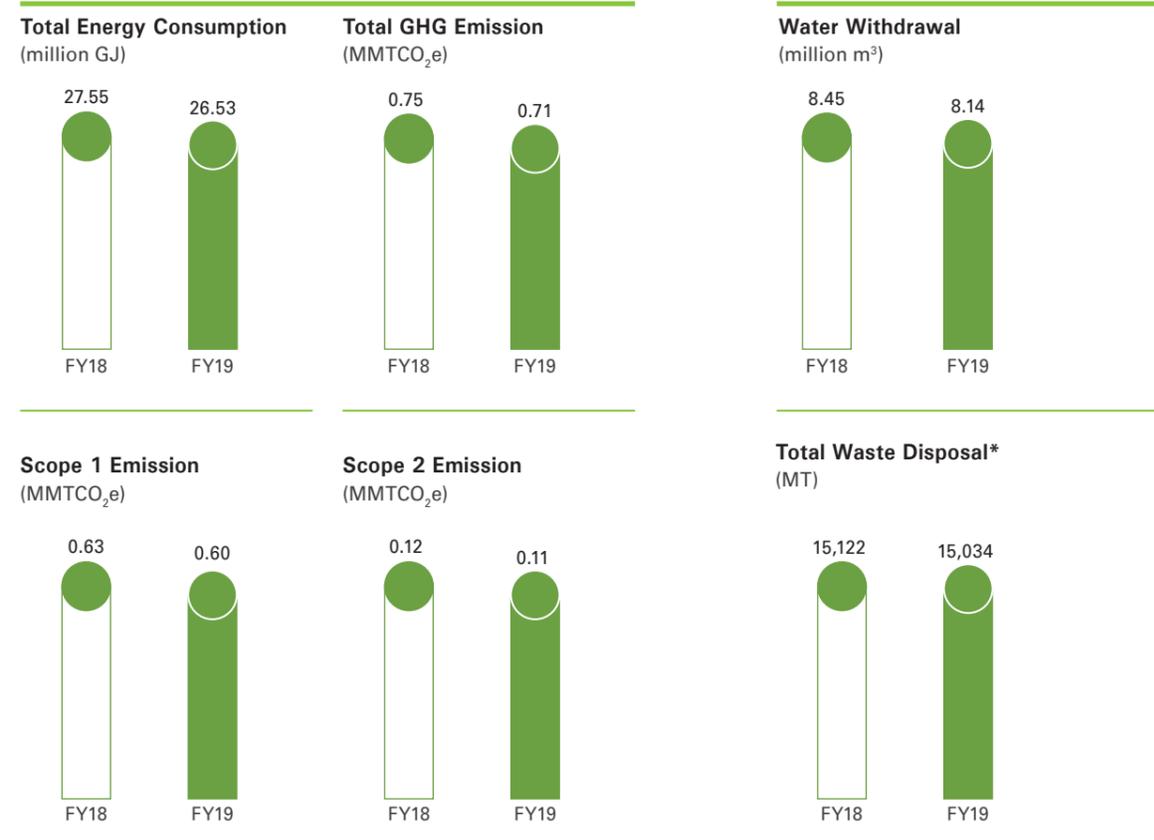
6. PARTNERSHIPS

Fertilisers

Our strategic approach to customer centricity to achieve key strategic priorities includes:

- > **Lead Farmer Engagement Programme** – Lead farmers, being progressive, adopt new technology/product and are opinion leaders in the village. Hence, effectively engaging them is critical for selling high-value products and multiplying demand
- > **Shaktiman Krishi Seva Kendra (SKSK) Key Retailer Engagement Programme** – Retailers have emerged as the most powerful influencers in the purchase decision of farmers. A well-defined value proposition for engaging key retailers provides a big strategic advantage. Nurturing strong relationships with them and leveraging their strength is necessary for sustaining the brand and increasing the sales of high-margin VAPs
- > **Net Promoter Score (NPS) implementation** – To measure the effectiveness of our engagement and take customer feedback on their perception of the Birla Shaktiman brand, it is imperative to listen to them to understand their expectations and satisfy them to increase loyalty

Other Businesses (Textiles, Fertilisers and Insulators) Energy Consumption and Emission



* Data for Textiles is reported as total waste generated — 10,596.57 MT for FY18 and 11,373.65 MT for FY19

Independent Assurance Statement



The Board of Directors and Management

Grasim Industries Limited, Mumbai, India

Ernst & Young Associates LLP (EY) was engaged by Grasim Industries Limited (the 'Company') to provide independent assurance on its annual Sustainability Report (the 'Report') for the Financial Year 2018-19.

The development of the Report is based on the Global Reporting Initiative (GRI) Sustainability Reporting Standards ('GRI Standards'); its content and presentation is the sole responsibility of the management of the Company. EY's responsibility, as agreed with the management of the Company, is to provide independent assurance on the report content as described in the scope of assurance. Our responsibility in performing our assurance activities is to the management of the Company only and in accordance with the terms of reference agreed with the Company. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organization. Any dependence that any such third party may place on the Report is entirely at its own risk. The assurance report should not be taken as a basis for interpreting the Company's overall performance, except for the aspects mentioned in the scope below.

Scope of assurance

The scope of assurance covers the following aspects of the Report:

- > Data and information related to the Company's sustainability performance for the period 1st April 2018 to 31st March 2019;
- > Site Verification of sample data and related information at the following manufacturing locations, as part of assurance of individual business divisions at:
 - > Viscose (Viscose Staple Fibre and Viscose Filament Yarn):
 - > Pulp and Fibre Unit, Harihar, Karnataka
 - > Staple Fibre Division, Nagda, Madhya Pradesh
 - > Viscose Filament Yarn (VFY), Veraval, Gujarat
 - > Chemicals (Chlor Alkali and Epoxy)
 - > Chlor Alkali and Epoxy Unit, Vilayat, Gujarat
 - > Chlor Alkali Unit, Veraval, Gujarat
 - > Other allied business (Fertilisers, Insulators and Textiles)
 - > Jaya Shree Textiles, Rishra, West Bengal
 - > Indo Gulf Fertilisers, Jagdishpur, Uttar Pradesh
- > Review of data on a sample basis, at the above-mentioned manufacturing locations, pertaining to the following Environmental and Social Disclosures of the GRI Standards:
 - > Environmental Topics: Materials (301-1), Energy (302-1, 302-3), Water (303-3, 303-5), Emissions (305-1, 305-2, 305-4, 305-7), Effluents and Waste (306-2).
 - > Social Topics: Employment (401-1), Occupational Health and Safety (403-2), Training and Education (404-1).

Limitations of our Review

The assurance scope excludes:

- > Operations of the Company other than those mentioned in the 'Scope of Assurance';
- > Aspects of the Report and data/information other than those mentioned above;
- > Data and information outside the defined reporting period i.e. 1st April 2018 to 31st March 2019;
- > The Company's statements that describe expression of opinion, belief, aspiration, expectation, aim or future intention provided by the Company;
- > Review of the company's compliance with regulations, acts, guidelines with respect to various regulatory agencies and other legal matters;
- > Data and information on economic and financial performance of the Company;
- > Review of qualitative statements and case studies in various sections of the Report.

Assurance criteria

The assurance engagement was planned and performed in accordance with the International Federation of Accountants' International Standard for Assurance Engagements Other than Audits or Reviews of Historical Financial Information (ISAE 3000). Our evidence-gathering procedures were designed to obtain a 'Limited' level of assurance (as set out in ISAE 3000) on reporting principles, as well as conformance of sustainability performance disclosures as per GRI Standards.

What we did to form our conclusions

In order to form our conclusion, we undertook the following key steps:

- > Interviews with select key personnel and the core team responsible for the preparation of the Report to understand the Company's sustainability vision, mechanism for management of sustainability issues and engagement with key stakeholders;
- > Interactions with the key personnel at the Company's manufacturing plants to understand and review the current processes in place for capturing sustainability performance data;
- > Physical audits at the Company's corporate office and manufacturing locations as mentioned in the 'Scope of Assurance' above;

Our Observations

The Company has demonstrated its commitment to sustainable development by reporting the performance of its individual business in Sustainability Report developed as per the GRI Standards and includes a description of the stakeholder engagement process, materiality analysis and the key material topics. There is scope for improving the internal data controls, documentation management and method of calculation and/or estimation for the said indicators.

Our Conclusion

On the basis of our reviews carried out as per 'Limited Assurance Engagement of ISAE 3000', nothing has come to our attention that causes us not to believe that the data has been presented fairly, in material respects, in keeping with the GRI Standards and the Company's reporting principles and criteria.

Our assurance team and independence

Our assurance team, comprising of multidisciplinary professionals, has been drawn from our climate change and sustainability network and undertakes similar engagements with a number of significant Indian and international businesses. As an assurance provider, EY is required to comply with the independence requirements set out in International Federation of Accountants (IFAC) Code of Ethics¹ for Professional Accountants. EY's independence policies and procedures ensure compliance with the Code.

for Ernst & Young Associates LLP,

Chaitanya Kalia
Partner

13th March 2020 Mumbai

¹ International Federation of Accountants (IFAC) Code of Ethics for Professional Accountants. This Code establishes ethical requirements for professional accountants. The guidance related to network firms was updated in July 2006.

GRI Content Index

GRI Standard	Disclosure	Page no.
GRI 102: General Disclosures 2016	102-1 Name of the organisation	5
	102-2 Activities, brands, products and services	8-16
	102-3 Location of headquarters	20
	102-4 Location of operations	20
	102-6 Markets served	10, 12, 15, 34, 98, 118
	102-7 Scale of the organisation	5
	102-8 Information on employees and other workers	3, 36, 58-59
	102-9 Supply chain	57, 78, 111, 112
	102-13 Membership of associations	52
	102-17 Mechanisms for advice and concerns about ethics	39, 40
	102-18 Governance structure	50-52
	102-19 Delegating authority	56
	102-20 Executive-level responsibility for economic, environmental and social topics	52
	102-22 Composition of the highest governance body and its committees	50-52
	102-23 Chair of the highest governance body	50
	102-24 Nominating and selecting the highest governance body	50
	102-25 Conflicts of interest	28-34
	102-26 Role of the highest governance body in setting purpose, values, and strategy	31, 51
	102-27 Collective knowledge of the highest governance body	Grasim Industries Annual Report 2018-19 page 41-42
	102-28 Evaluating the highest governance body's performance	50-52
	102-29 Identifying and managing economic, environmental and social impacts	52
	102-30 Effectiveness of the risk management processes	53-55
	102-31 Review of economic, environmental and social topics	52
	102-32 The highest governance body's role in sustainability reporting	52
	102-33 Communicating critical concerns	44, 45
	102-34 Nature and total number of critical concerns	44, 45
	102-35 Remuneration policies	47, 51
	102-36 Process for determining remuneration	51
	102-37 Stakeholders involvement in remuneration	51
	102-38 Annual total compensation ratio	Grasim Industries Annual Report 2018-19 page 94, 96 and 412
	102-39 Percentage increase in annual total compensation ratio	Grasim Industries Annual Report 2018-19 page 94, 96 and 412
	102-44 Key topics and concerns raised	44, 45
	102-46 Defining report content and topic boundaries	4
102-47 List of material topics	48-49	
102-50 Reporting period	4	
102-54 Claims of reporting in accordance with the GRI Standards	4	
102-55 GRI content index	124-125	
102-56 External assurance	121-123	
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	50
	103-2 The management approach and its components	51, 52
	103-3 Evaluation of the management approach	51, 52
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	71
	201-2 Financial implications and other risks and opportunities due to climate change	53

GRI Standard	Disclosure	Page no.
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	50
	103-2 The management approach and its components	51, 52
	103-3 Evaluation of the management approach	51, 52
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	117
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	50
	103-2 The management approach and its components	51, 52
	103-3 Evaluation of the management approach	51, 52
GRI 302: Energy 2016	302-1 Energy consumption within the organisation	36, 84, 100, 121
	302-2 Energy consumption outside of the organisation	36, 84, 100, 121
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	50
	103-2 The management approach and its components	51, 52
	103-3 Evaluation of the management approach	51, 52
GRI 303: Water 2016	303-1 Water withdrawal by source	36, 86, 101, 121
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	50
	103-2 The management approach and its components	51, 52
	103-3 Evaluation of the management approach	51, 52
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	83, 100, 121
	305-2 Energy indirect (Scope 2) GHG emissions	83, 100, 121
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	50
	103-2 The management approach and its components	51, 52
	103-3 Evaluation of the management approach	51, 52
GRI 306: Effluents and Waste 2016	306-2 Waste by type and disposal method	37, 87, 103, 121
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	50
	103-2 The management approach and its components	51, 52
	103-3 Evaluation of the management approach	51, 52
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	58
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	50
	103-2 The management approach and its components	51, 52
	103-3 Evaluation of the management approach	51, 52
GRI 403: Occupational Health and Safety 2016	403-2 Types of injury and rates of injury, occupational diseases, lost days and absenteeism, and number of work-related fatalities	2, 12, 37, 90, 105
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	50
	103-2 The management approach and its components	51, 52
	103-3 Evaluation of the management approach	51, 52
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	3, 12, 59
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	50
	103-2 The management approach and its components	51, 52
	103-3 Evaluation of the management approach	51, 52
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	3, 50
	405-2 Ratio of basic salary and remuneration of women to men	50
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	50
	103-2 The management approach and its components	51, 52
	103-3 Evaluation of the management approach	51, 52
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments and development programmes	60-67
	413-2 Operations with significant actual and potential negative impacts on local communities	62-67

Sustainability Data FY19

Environment Parameter	Unit	Total Consolidated	
		FY18	FY19
Water and Effluents			
Total Water Withdrawn	million m ³	54	54
Waste			
Waste Disposal	MT	6,01,966	6,22,372
Energy and Emissions			
Non-Renewable Energy Consumption	million GJ	70	71
Renewable Energy Consumption	million GJ	1.86	2.46
Total Energy Consumption	million GJ	72.11	73.48
Scope 1 Emission (direct emission)	MMT	3.94	3.92
Scope 2 Emission (indirect emission)	MMT	1.64	1.91
Total Scope 1 and 2 Emission	MMT	5.58	5.83
Social			
Total Employees	Permanent	24,286	24,390
Total Hours of Training - Full-time Equivalent (FTE)	Hours	1,59,102	2,55,334
Average Training Hours per FTE	Hours	6.55	10.47
Safety Performance (FTE)	Reported Incidents	98	50
Total Man-Hours Worked (FTE)	Man hours	4,26,32,785	4,07,90,059
Lost Time Injury Frequency Rate (LTIFR)	per million hours worked	2.30	1.23

The reported energy is consumption by individual businesses and does not consider into effect the sharing of energy between businesses of Grasim Industries Limited. For instance, the chlor-alkali unit at Nagda & Vilayat along with Epoxy unit at Vilayat are sourcing energy from pulp & fibre business of Grasim Industries Limited hence its GHG emissions are reported under Scope 2 emissions for CFI business and it will be scope 1 for pulp & fibre business.

Data for Textiles is reported as total waste generated, 10,597 MT for FY18 and 11,374 MT for FY19.

Glossary

• ABCIL - Aditya Birla Chemicals India Limited
• ABG - Aditya Birla Group
• ABPCL - Aditya Birla Power Composites Limited
• ABSTC - Aditya Birla Science & Technology Company Private Limited
• ALCL ₃ - Aluminium Chloride
• ASSOCHAM - The Associated Chambers of Commerce and Industry of India
• A&E - Ancient and Endangered
• BAT - Best Available Technologies
• BEE - Bureau of Energy Efficiencies
• BFC - Bulk Flow Cooler
• Birla Cellulose - Aditya Birla Group global pulp and fibre operations
• CaCl ₂ - Calcium Chloride
• CELC - Confederation of Linen and Hemp
• CIFE - Centre for Central Institute of Fisheries Education
• CII - Confederation of Indian Industry
• CPW - Chlorinated Paraffin Wax
• CSA - Chlorosulphonic Acid
• DJSI - Dow Jones Sustainability Index
• DSIR - Department of Scientific & Industrial Research
• ESG - Environment, Social and Governance
• ETP - Effluent Treatment Plant
• FICCI - Federation of Indian Chambers of Commerce and Industry
• FPSA - First Party Safety Audit
• FPY - First Pass Yield
• FSC® - Forest Stewardship Council
• GHG - Greenhouse Gas
• GRI - Global Reporting Initiative
• Grasim - Grasim Industries Limited
• GVC - Gyanodaya Virtual Campus
• HCV - High Conservation Value
• HDPE - High Density Polyethylene
• HTS - High Temperature Shift
• IGF - Indo Gulf Fertilisers
• IMC - Indian Merchant Chambers
• INDC - Intended Nationally Determined Contribution
• JSA - Job Safety Analysis
• LAPF - Liva Accredited Partner Forum
• LCA - Life Cycle Assessment
• LER - Liquid Epoxy Resins
• LOTO - Lock Out Tag Out
• LTIFR - Lost Time Injury Frequency Rate
• MMCF - Man-made Cellulosic Fibres
• MRSL - Manufacturing Restricted Substance List
• NABL - National Accreditation Board for Testing and Calibration Laboratories
• NPS - Net Promoter Score
• ODF - Open Defecation Free
• PAC - Polyaluminium Chloride
• PAT - Perform-Achieve-Trade
• PEFC™ - Programme for the Endorsement of Forest Certification

-
- PPE - Personal Protective Equipment

 - PSM - Process Safety Management

 - PTW - Permit To Work

 - RMC - Ready Mix Concrete

 - RO - Reverse Osmosis

 - SAC - Sustainable Apparel Coalition

 - SBP - Stable Bleaching Powder

 - SBUs - Strategic Business Units

 - SDGs - Sustainable Development Goals

 - SFI® - Sustainable Forestry Initiative

 - SHGs - Self Help Groups

 - SKSK - Shaktiman Krishi Seva Kendra

 - SMILE - Safety Measures in Logistics External

 - SO - Safety Observation

 - SPM - Suspended Particulate Matter

 - SSY - Spool Spun Yarn

 - TDS - Transportation and Distribution Safety

 - VFDs - Variable Frequency Drives

 - VFY - Viscose Filament Yarn

 - VSF - Viscose Staple Fibre

 - WASH - Water, Sanitation and Hygiene

 - WBCSD - World Business Council for Sustainable Development

 - WOW - Wealth Out of Waste

 - WSA - Wet Sulphuric Acid

 - ZDHC - Zero Discharge of Hazardous Chemicals

 - ZLD - Zero Liquid Discharge



Grasim Industries Limited
Aditya Birla Centre
S. K. Ahire Marg,
Worli, Mumbai – 400030 India