



## Powering Integrated Sustainability Ecosystem Thru Value Chain Innovation



Association Of Synthetic Fibre  
Industry ( ASFI )  
[www.asfiindia.com](http://www.asfiindia.com)

ACFIF Malaysia  
13-15 May, 2026

Hemant D Sharma  
President, ASFI

1 **Global Textile Growth & Environmental Concerns**

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2 **Building the Sustainable Future**

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3 **India Initiatives**

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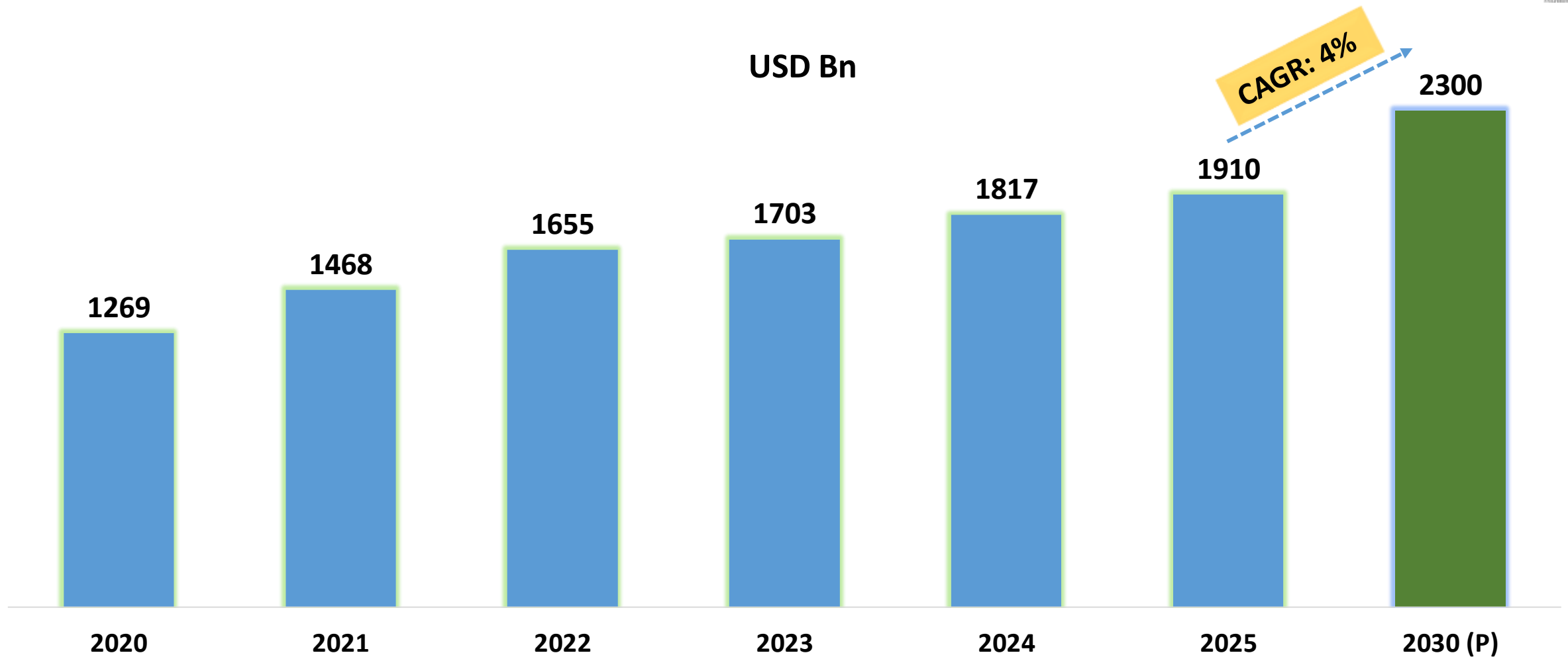
4 **RIL Initiatives**

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5 **Summary**

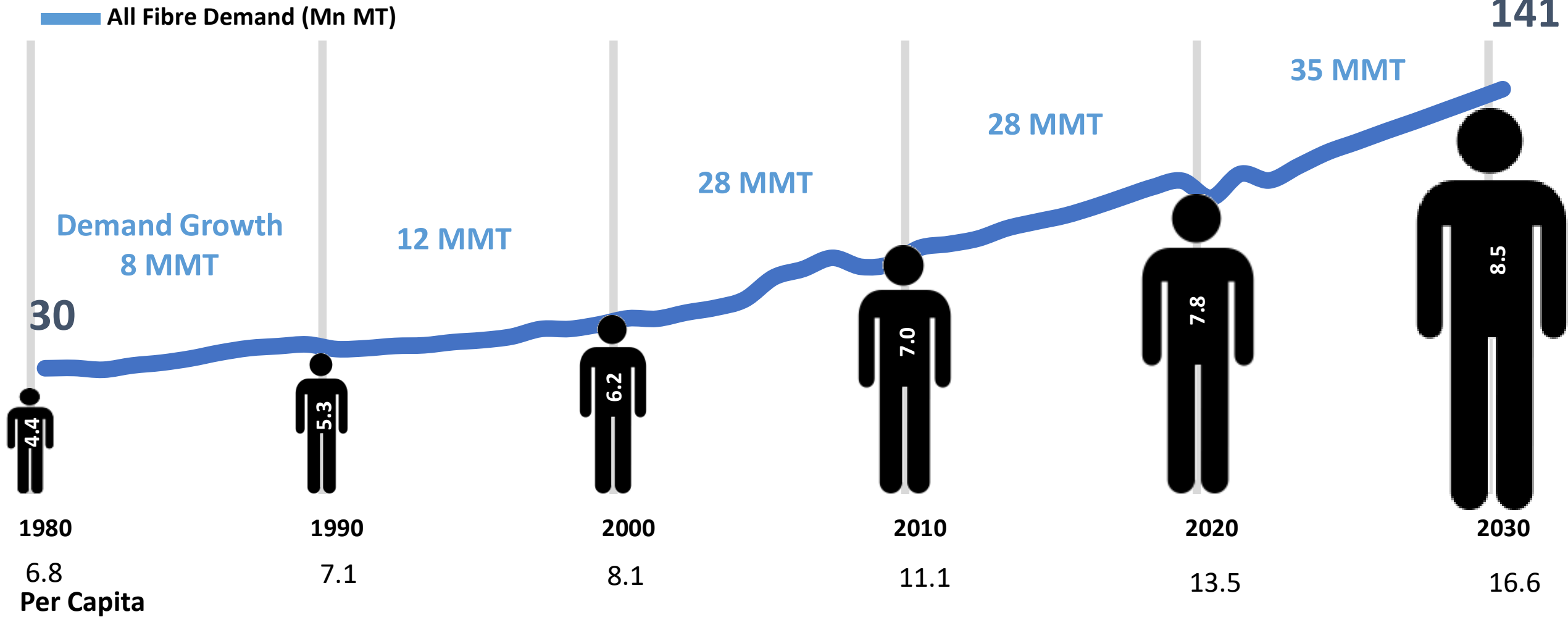


# Rising Global Apparel Consumption



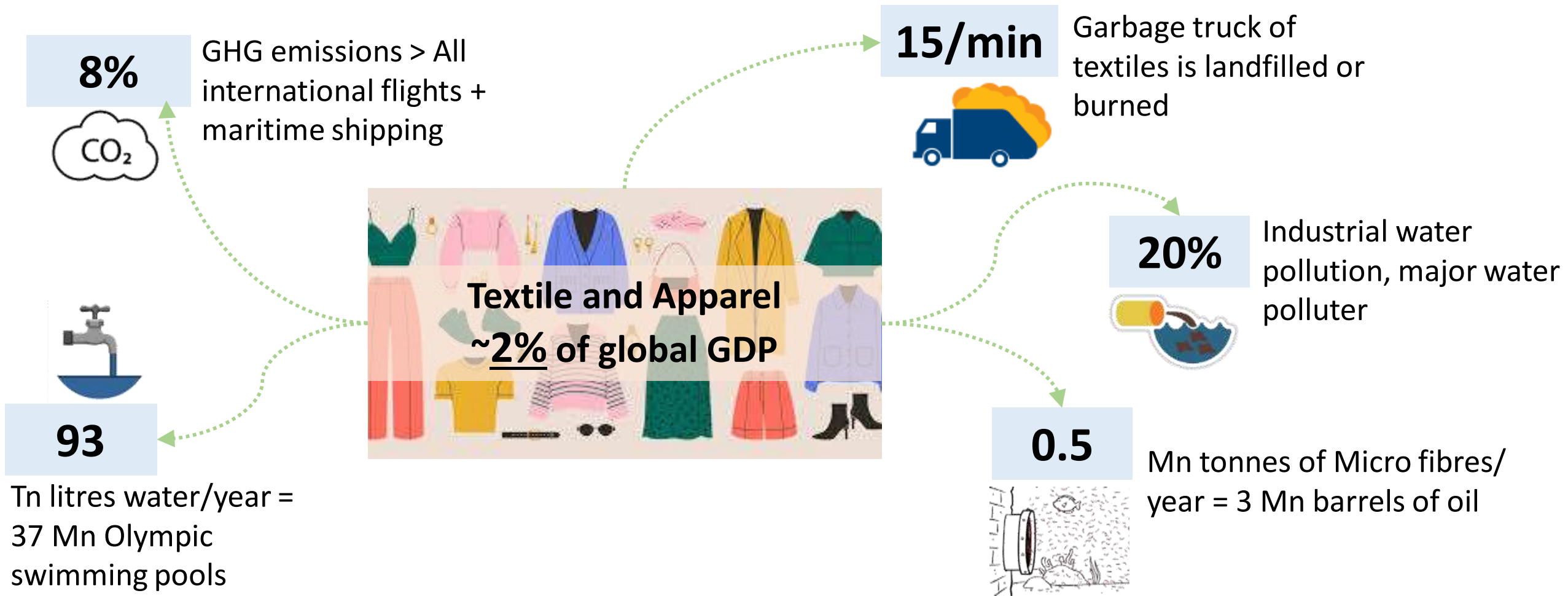
Per capita apparel spend is projected to rise ~15% over five years

# Three Decades of Rapid Textile Consumption Growth



Per capita fibre consumption has doubled in the last 4 decades

# Why Textiles are Under Global Scrutiny

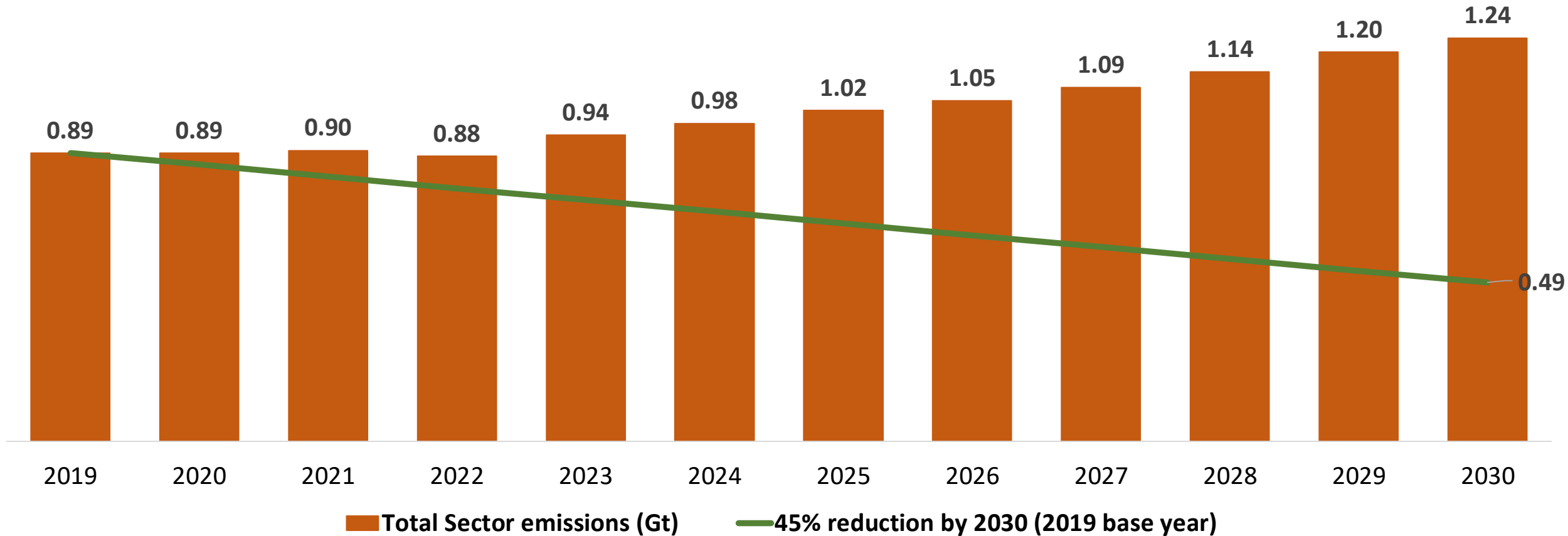


Large share of pollution → Calls for significant sustainability reforms

# Apparel GHG Emissions Falling Behind



Gigatonnes



40% rise in emissions in normal course of operations → Strong call for remedies

# Building the Sustainable Future

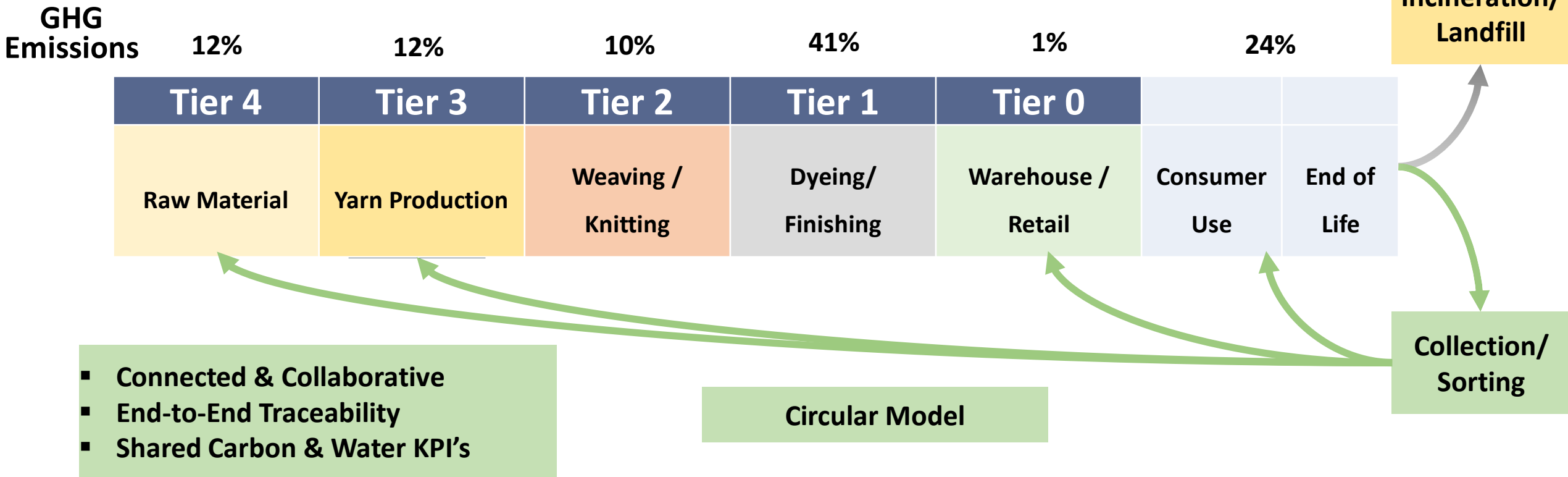




# Mapping the Textile Value Chain

- Fragmented & Inefficient
- Low Supply Chain Visibility
- Sustainability as Audit Compliance

Linear Model



Adopting circular model will be critical in achieving sustainability goals



## Use of Recycled Fibres

Material	Water (L/kg)	GHG Emissions (kg CO2e/kg)	Land (m <sup>2</sup> /kg)	Chemicals (Relative)
Conventional Cotton	10K – 20K	5 – 8	10 – 15	High
Polyester (Virgin)	10 – 50	8 – 12	0.1 – 0.5	Medium
Recycled Polyester	5 – 25	3 – 7	0.1 – 0.5	Low

- Recycled Polyester: 30-60% lower CO2
- Sourced from PET bottles as T2T recycling is limited
- 1% of clothing recycled, 73% landfill & 26% incinerated

Sustainability starts at the molecular level

## Efficient Operations & Energy Transition



### Process Optimization

10-15% reduction in chemical consumption



### Energy Efficiency

20-30% reduction in energy consumption



### Renewable Power

25-50% reduction in Emissions  
15-25% saving in Power cost



### Water Conservation

80-90% Freshwater intake cut by ZLD  
30-40% lower water cost

Sustainability translates into lower costs & stronger margins

# Building the Sustainable Future





## Relative Influence of Key Drivers

Government Mandates  
(45-50%)

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Corporate Actions  
(35-40%)

>

Consumer Preferences  
(10-20%)

- EPR Regulations
- Strong enforcement

- Cascade deep into supply chains
- Brand Promotions

- Mindful consumption
- Support Sustainable Brands

Every section contributes towards a holistic sustainable ecosystem

# Govt Mandates: Various Stages and Different Models

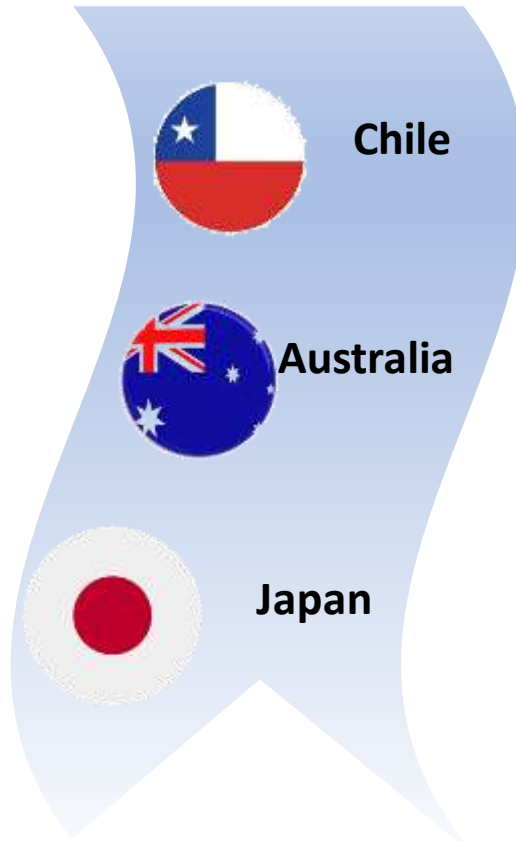
## Hard mandates

Enforcement and penalties



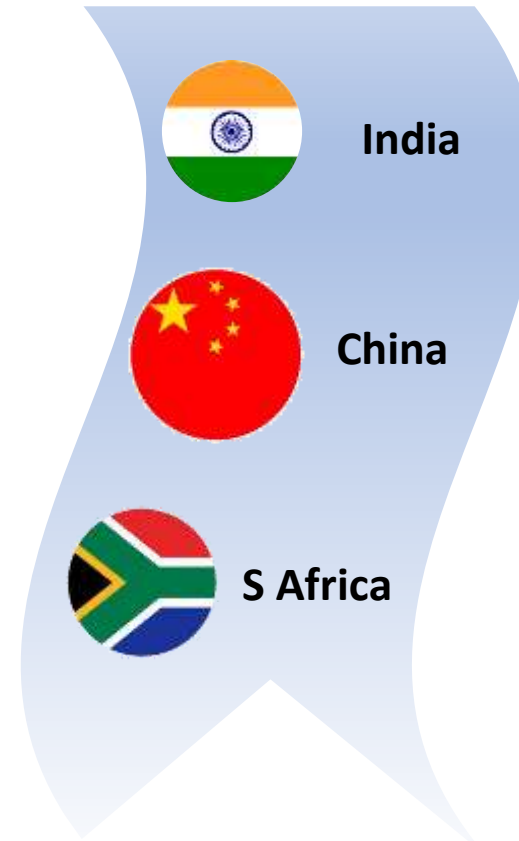
## Hybrid models

Legal structure with flexibility



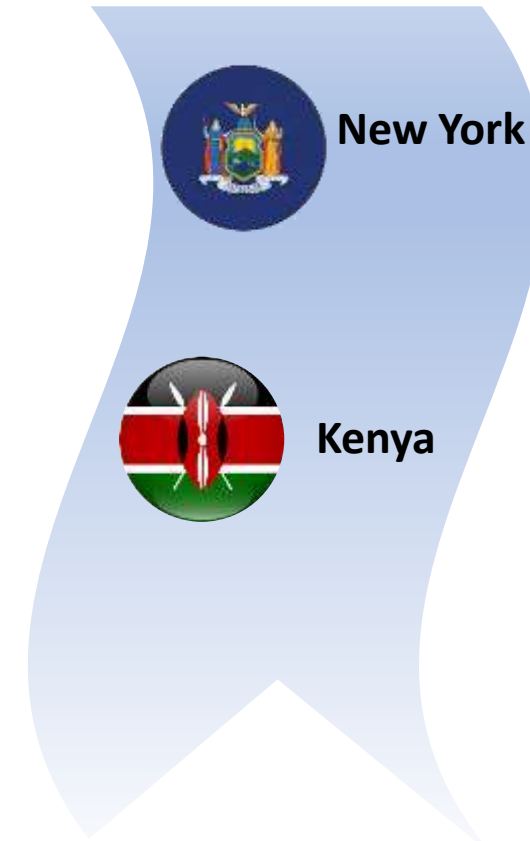
## Policy for Industries

EPR not yet formalized



## Directionally aligned

Still evolving



Full suite of EPR and compliance systems will be active in key economies by 2030



# Corporate Actions: Strongest Short-term Driver

## Materials



**61%** sustainable materials use



**43%** sustainable materials



**50%+** recycled packaging



**60%** recycled content

## Processes



Eliminate certain hazardous chemicals aligned with ZDHC



lower-impact techniques, use less water & energy



**28%** reduce water consumption



Implementing zero hazardous chemicals discharge

## Policy



Climate targets aligned to science



SBTi-validated climate targets



Eco-designed products & carbon footprint.

Sustainable practices gaining momentum across companies



**75%-80%**

Surveyed consumers sustainable textiles are important



**54%-60%**

willing to pay more for a garment made from a certified material



**10%**

Premium tolerance



**New generation is more inclined for responsible clothing**



# Towards Sustainability

*India Initiatives*



# Textiles: Weaving India's Growth Story



- **2nd largest employer** (145 million employed); **15% of total working population**
- **Contributes ~12% to industrial production**

## Budget 2026: Dedicated Integrated Program

- **Tex Eco initiative:** Align Indian textiles with global green standards.
- **National Khadi Initiative:** Incentivize sustainable rural textile livelihoods.
- **Samarth 2.0:** Upgraded skilling to modernize textile talent via industry collaboration.

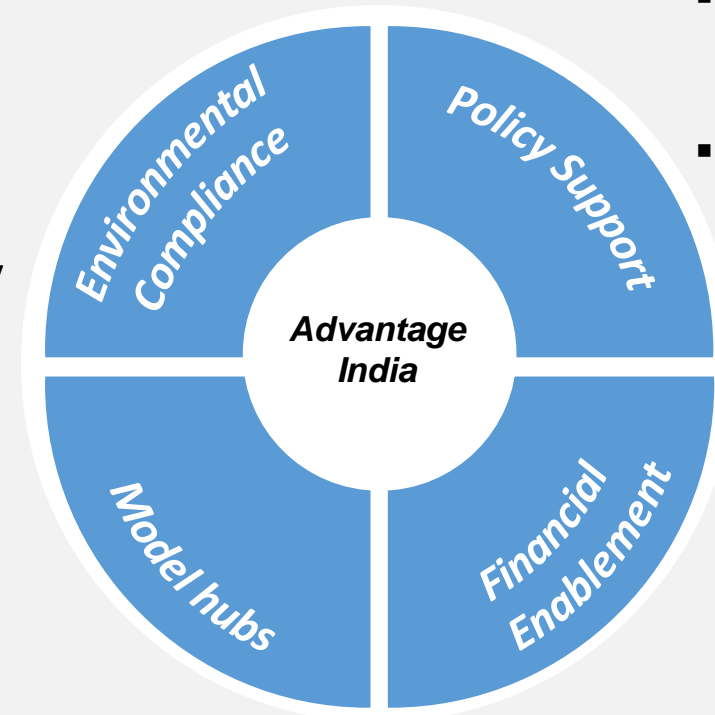
**Strong textile growth will bring inherent socio-economic growth in India**



## Initiative by Indian Government

- **Project SU. RE**  
30 fashion companies committed to use sustainable materials
- **ESG Taskforce**  
To integrate sustainability into textile policy and industry practices

- **SUSTEX –**  
Project targeted over 500 textile related SMEs



- **NTTM and PM MITRA:**  
Strong focus on sustainability
- **InTex India programme:**  
Ministry collaboration with UNEP
- **Green Fund & Credit Rating:** CIBIL-like rating and fund to support MSME sustainability investments

MoT 2047 Roadmap for Sustainable Textiles: Strategic vision aligning Indian textiles with climate, circularity, and social priorities

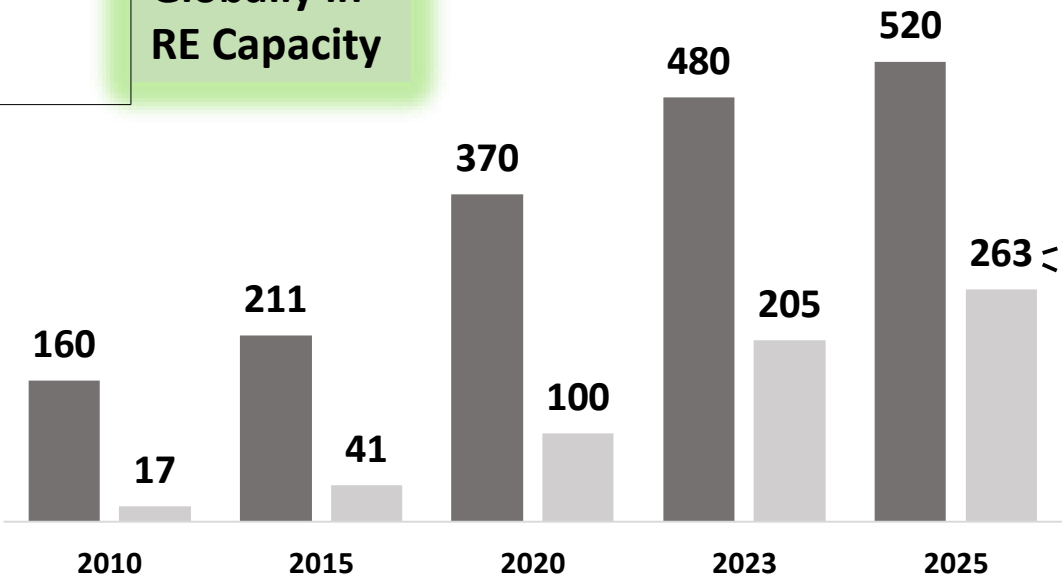
**Strong policy ecosystem is enabling sustainable scale-up of India's textile industry**



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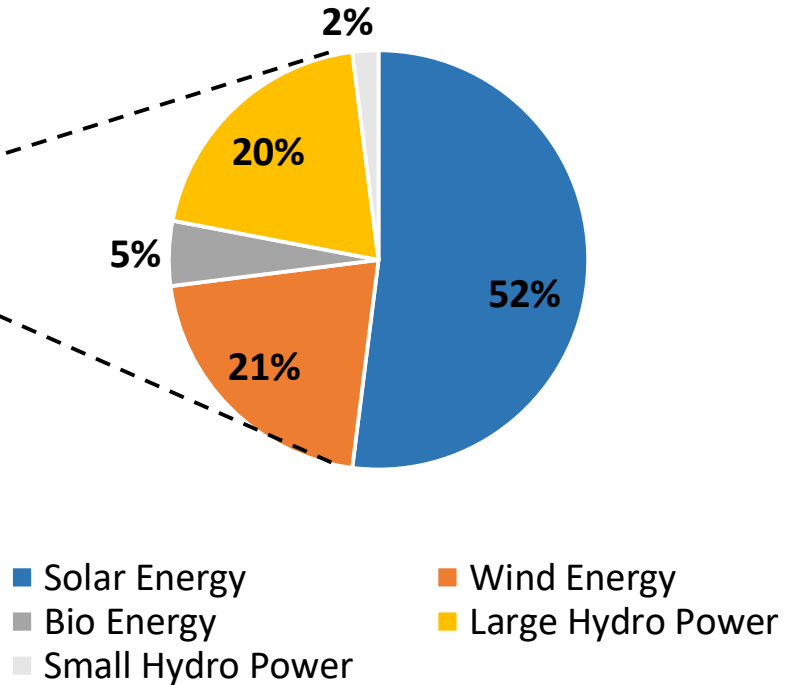
Globally in RE Capacity

GW



■ Total Power Capacity ■ Renewable Energy Capacity

Breakup of Renewable Energy



Target : 2030

**500 GW**

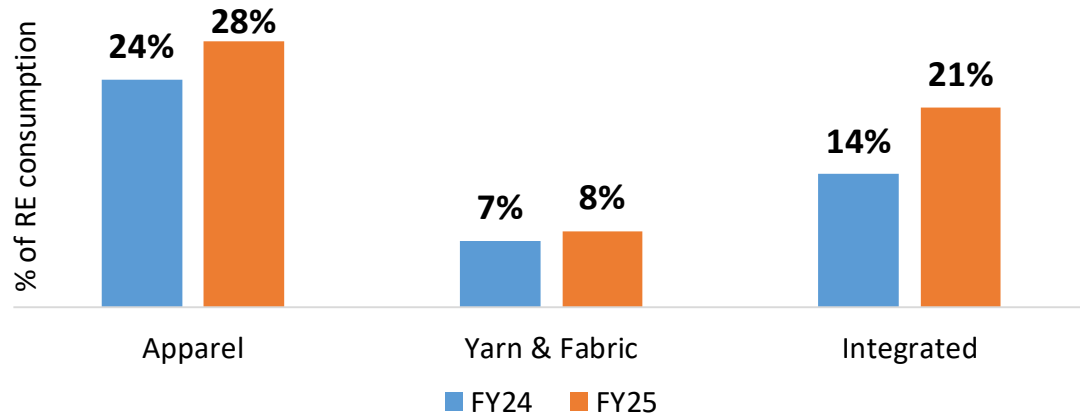
- RE capacity has grown at ~21% CAGR (20-25), supported by strong government policy initiatives, large-scale infrastructure execution, and rising private-sector participation.

RE are no longer incremental - Redefining India's energy architecture

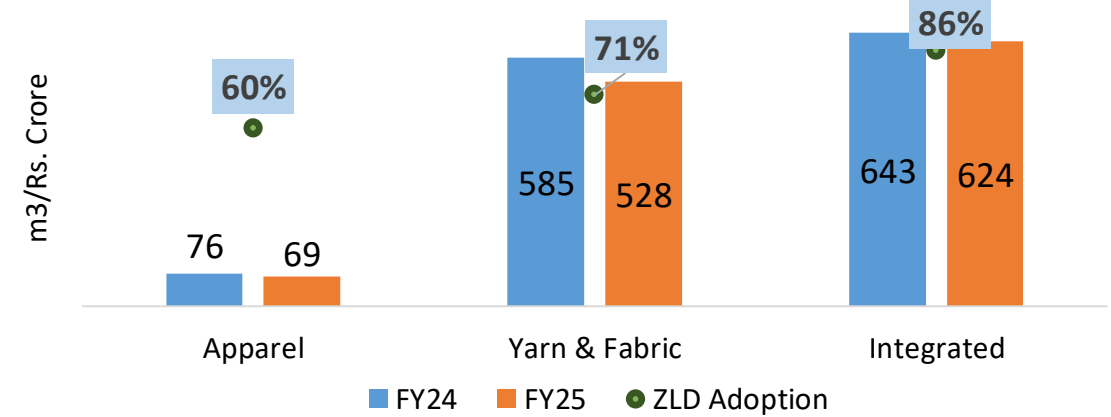
# Key ESG Indicators: Large Textile Companies



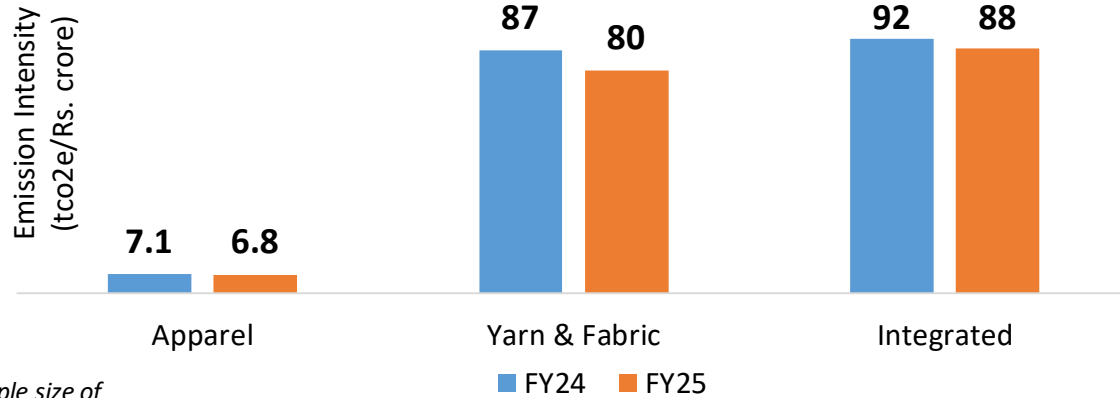
## Renewable Energy Adoption



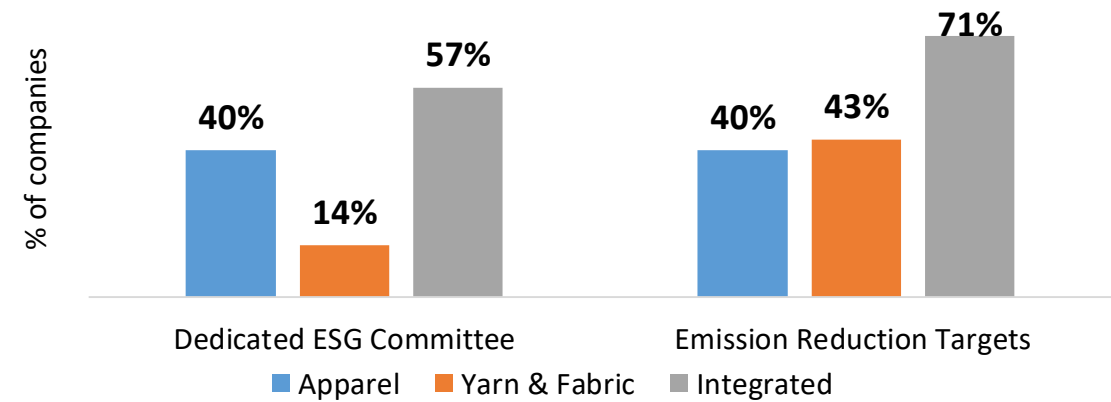
## Freshwater withdrawal intensity



## Declining Carbon Emission



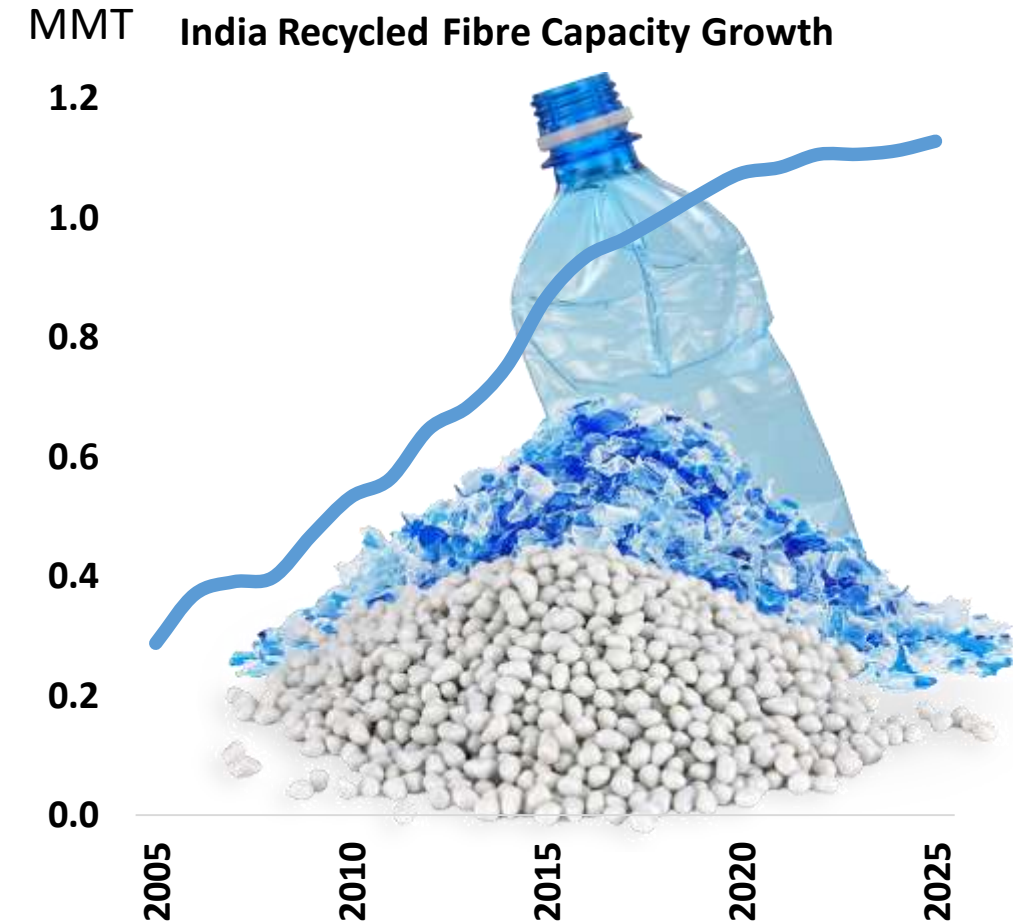
## Governance Maturity – FY25



\* Sample size of large, listed, and export-oriented firms

India textiles moving from compliance to leadership in ESG performance

- ✓ **2<sup>nd</sup> largest producer of recycled fibre globally**
- ✓ **90% PET bottles are recycled**
- ✓ **Over 40 bn bottles recycled annually**



**MMF industry: Significant contributor to keep our environment clean**



# Towards Sustainability

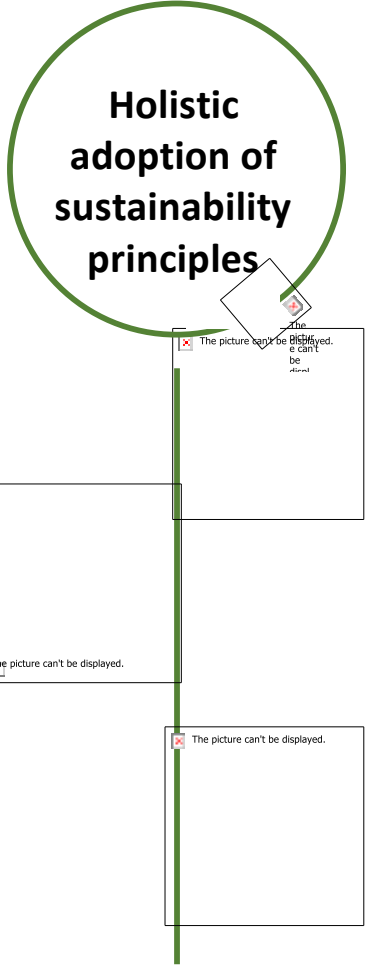
*Initiative by ASFI Member (RIL)*



**1** Circularity  
**>29k MT plastics recycled\***  
*Developing innovative solutions like Waste-to-Road and Waste-to-Oil*

**2** Inclusivity  
**1.9L New Hires\***  
*Contributing significantly to employment creation in the economy*

**3** Innovation  
**1,156 patents**  
*Growth fueled by breakthrough technologies and innovation*



**4** Governance  
**Dedicated ESG Committee**  
*Board oversight of the company's ESG proposition*

**5** Regeneration  
**2.48Cr saplings planted**  
*Preserving biodiversity and having a net positive effect on environment*

**6** Health & Safety  
**ISO 45001 & OSHAS 18001**  
*Adherence to highest levels of globally recognized safety standards*

**Net-zero carbon by 2035 is not just a pledge - it is a strategic transformation**

# Building an Integrated New Energy Ecosystem

## Building Giga Factories in Jamnagar

Solar PV Modules



Advanced Batteries



Green Hydrogen



Bio Gas



Solar Panels



- New Energy ecosystem - **From Sand to Electrons to Green Molecules**
- Successfully produced first 200 MW of Heterojunction modules.
- World's largest single-site solar projects spanning 5,50,000 acres of arid land (**55 MW of solar modules & 150 MWh of battery containers every day**)
- Battery Gigafactory: 40 GWh now, expandable to 100 GWh
- 3 MMTPA of green H<sub>2</sub> by 2032
- CBG: Currently, 55 plants with an annual capacity of 0.5 million tonnes. Target to scale up to 500+ plants by 2030.



1. Developed eco-system for bottle collection: 160+ vendors
2. Investments:
  - i. New 30 KTA integrated rPSF in 2026 in addition to existing 29 KTA
  - ii. 27 KTA rPET plant fully integrated with Washline by 2026
  - iii. Additionally multiple rPET lines are planned post 2026
3. RIL currently recycles 3 bn bottles/annum to fibre, which will increase to 10 bn bottles/annum in next 2-3 years
4. RIL is actively collaborating with brands to meet their sustainability commitments



Reliance is ready to meet rapidly growing rPET demand

# Product Innovation for Eco-conscious Fashion




Made from 100% used PET bottles  
Recycled Polyester for Apparel & Home Textiles



Bio-degradable Polyester for Textiles



**IMAGES:**  
Most Admired Fashion Innovation:  
Sustainable fabric Adoption  
**5-in-1** multi-functional  
**R|Elan™ SmarTex**



**intexcon:**  
Exemplary contribution in the field of Sustainable Fashion  
**Light weight fiber**  
**ecotherm™**



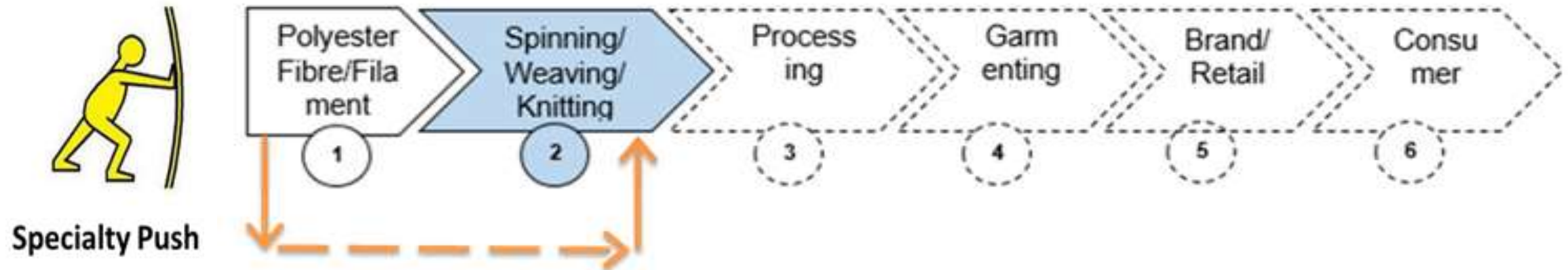
SuPer Staple Fibre – Feel & comfort similar to cotton  
Inherent moisture management



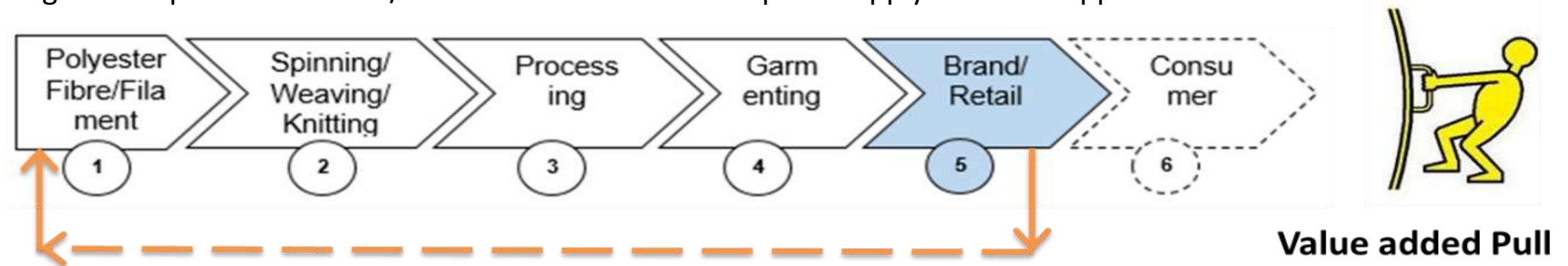
Inherent moisture-management technology  
Keeps wearer cool & dry

# New Approach for Value Chain Integration

- Earlier, critical decision-making lay at immediate level in value chain



- To generate pull from brands/retailers and establish complete supply chain to support it



Integrating value chains to provide one-stop solution for Brands & Retailers

# Global Connect to Make India a Preferred Sourcing Hub



- Showcased innovative solution to 150+ Global & Domestic Brands
- 225 Mn+ garments with R|Elan™ fabric in FY25-26
- 55 Hub Excellence Program (HEP) Mill Partners
- 10 Mn Hangtags to promote MMF sourcing from India



## Lakme Fashion Week

- ✓ Tie-ups with **14 renowned fashion designers**
- ✓ New hi-fashion **apparel collection of 40~45 designs** every season **promoting new applications**
- ✓ Using **4 Fashion Influencers** every season to uniquely **promote the eco-collections**
- ✓ Extensive outreach through **R|Elan™ Social Media** handles~ **500 million+** consumers impressions so far
- ✓ A **new designer #EarthTee** release every World Environment Day; **7<sup>th</sup> Season**

**Making Sustainable Fashions aspirational for consumers**



## R|Elan™ Circular Design Challenge

- ✓ In **partnership with the UN**, fostering a **greener, sustainable future**
- ✓ A global activation empowering **young fashion designers** to showcase **circular innovations**; **1500+ participants** so far
- ✓ Promotes **sustainable practices**, **reduces waste** in the **fashion and textile value chain**
- ✓ **Annual Prize (USD 21K)**, **tailored mentorship** and **strategic market access** to incentivize the winner
- ✓ **R|Elan™ CDC 2026** to debut as **Indo-French Edition** under **India-France Year of Innovation**

**India's biggest Sustainability Award for the World**

**R|Elan™ B2B & B2C initiatives to increase Sustainability awareness**



- ✓ Rising textile consumption is driving environmental impact, necessitating urgent action.
- ✓ Process efficiency and increased use of recycled fibres are key to reducing carbon footprint.
- ✓ Government mandates, corporate initiatives, and consumer awareness will accelerate sustainability.
- ✓ India is well-positioned to lead in global recycled textile markets.

# Thank You

