

# Initiatives on Circular Apparel

Globally, the textile sector has witnessed a shift towards sustainable practices driven by a number of factors. Across the textile value chain, stakeholders have become more aware of the impacts of their decision-making. Consumer buying behaviour ultimately dictates the decisions of brands and manufacturers and awareness among consumers and other stakeholders has prompted brands to increase transparency in their supply chains, with clear responsibility on manufacturers, suppliers and raw material providers to make sure their processes are environmentally and socially sustainable. It has now been widely accepted that **Circular Economy or Circularity** in the textile and apparel sector (**circular apparel**) can provide some of the solutions. Circular economy is an economic system where materials and energy circulate in loops and stay within the value chain, as opposed to a linear system of take-make-dispose. In a circular economy the concept of waste is eliminated, material value is reused, recycled, and repurposed.

## OVERVIEW OF ACTIVITIES

**Centre for Responsible Business (CRB)** has initiated multiple projects on circular apparel, that aim to identify and facilitate key policy and practice interventions that can provide impetus to nudge the Indian Textile and Apparel sector onto a circular path and thereby support balanced and sustainable growth of the industry. This Factsheet provides an overview of these interventions in terms of their objectives, achievements so far and the way ahead:

- **Circular Apparel Policy Innovation Lab (CAPIL)** was launched in 2019 with support from Laudes Foundation (erstwhile C&A Foundation) to facilitate a process of inclusive policy making for circular textiles and apparel in India (select clusters) through dialogues involving brands, suppliers, industry experts, policy makers and other key stakeholders. The CAPIL project focuses on **identifying CE priorities and linked potential policy interventions** based on interaction with stakeholders on the ground. These **stakeholders** include **national and international brands, suppliers and manufacturers, design institutes, innovators and start-ups operating on CE business models, academia, and relevant central and state policy actors.**
- CRB is working on a **Status Paper for Circular Textiles and Apparels in India**. This paper is being prepared on inputs gathered through secondary research, inputs from clusters/industry actors and advise/insights received from a group of sectoral experts (brands, academia, industry association and textile chemical experts). Findings from this paper will be shared with key Ministries/organs of the government that would be relevant for promoting Circular Apparel in the country.
- **Promoting Responsible Value Chains in India for an Effective Contribution of the Private Sector to the SDGs (PROGRESS project)** is a multi-year project focused on the relationship between brands and their value chain actors on communications and influence related to adoption of sustainable or circular practices. Partnering with Aston University (UK), and supported by the International Development Resource Centre (IDRC of Canada), CRB is exploring how the private sector can support the journey towards achieving certain critical Sustainable Development Goals (SDGs) in India. Textile and Apparel is one of the four sectors in scope for the project and the objective is to highlight how brands are or can promote Circular Apparel in their value chains in India. Under PROGRESS, CRB has held multi-stakeholder consultations in New Delhi and Ahmedabad, and a number of personal interviews to determine the level of sustainability influence between entities in a value chain. Best practice case studies on circular practices have been compiled to facilitate dissemination and also to identify any supportive policy action that may be needed. A toolkit for practitioners to promote CE principles in the apparel and textiles sector is also being developed.

CRB has been able to mobilise stakeholders in several locations for deliberations and interactions for Circular Apparel and increase awareness on potential for CE practices in the textile and apparel sector. Further, CRB has been able to achieve the following learning and practice level outcomes:



## AWARENESS & UNDERSTANDING

**Framework for identifying CE opportunities along the various segments of the textile and apparel value chain:** CRB has designed a framework (Annexure 1) to capture the most pertinent CE priorities (vertical axis) for the different segments of the textile and apparel value chain (horizontal axis). Based on interactions with stakeholders, it has been observed that the understanding and definition of circular economy is quite varied amongst different stakeholders. Hence, the framework has been designed with a view to provide a common and consistent understanding of CE priorities while interacting with different sectoral stakeholders. The framework is used as a guidance document during stakeholder consultations and interviews, with a focus on geography and/or value chain segments. Input is recorded in a cumulative manner, from each region or textile/apparel hub in India covered during the research. Based on the priorities identified in this table, the relevant policy interventions are proposed for the respective region or apparel hub.



## POLICY CONTEXT

**Identifying regional policy and practice priorities:** Aligned to the objective of inclusive policy making, CRB's initiatives aim to identify policy action both at the state level and at the central level. CRB has undertaken Circular Apparel project activities in Delhi-NCR, Ahmedabad, Bengaluru and Panipat. For each one of the locations, the important value chain segments were identified, followed by collecting stakeholder input to determine priority challenges and priorities. **Policy briefs** containing ideas and priorities gathered from stakeholders have been submitted to the government of Gujarat and the government of Karnataka. Below are some of the findings:

- In **Ahmedabad**, stakeholders felt that **local infrastructure** (ginning, etc.) at farm level should be provided to generate employment opportunities, as well as increase income for farmers (cotton growers). Additionally, this would preclude baling of cotton for transportation; baling leads to higher breakage in fibre. **Reverse logistics** appeared to be an important issue, as viable business models are lacking. A partnership between transport aggregators and apparel pick-up centre/Producer Responsibility Organizations (PROs) could be explored.
- In **Bengaluru**, significant demand emerged for **Standards on garment manufacturing**, declaring eco-friendly or circular input (chemicals, energy, water, etc.). **Labelling** was deemed to be important to let customers make informed choices. Regulations could play a big role: usage of **recycled water should be made mandatory for dyeing operations**, and banning landfilling of textile and apparel waste (trimmings, post-consumer waste, etc.). Incentives like TUFS (Technological Upgradation Fund Scheme) should be revamped to include energy efficient and low resource-intensive equipment. All stakeholders unanimously mentioned that the state (Karnataka) needed a **stable renewable energy policy**—in recent years the renewable energy policy had been altered too many times. This had prevented many businesses from investing in renewable energy technologies.
- Stakeholders in **Panipat** had pointed out that **domestic collection of textile and apparel recycling** must be shored up in, to avoid dependence on imports. Panipat is a recycling hub; in some ways Panipat had numerous examples of circular activities. Dyeing units in Panipat felt that ZLD (Zero Liquid Discharge) was the way forward to move forward to ensure minimum groundwater extraction. Viability of solar energy without subsidies is minimal for MSMEs; after withdrawal of subsidy, only large exporters are able to invest in solar installations.



- Further, during CRB's Annual conference **India and Sustainability Standards 2019**, a high-level plenary session was organized to discuss innovations and circular practices in the sector and the way forward. Panelists were invited from different segments of the apparel value chain, including brands, suppliers, academia and entrepreneurs. The panel felt that **R&D into applications of Industry 4.0** is crucial for India to compete with apparel manufacturing hubs like Bangladesh and Vietnam. The need for a multi-stakeholder platform on circular apparel was also felt with key circular economy advocates (businesses and organisations) collaborating to develop the platform.
- The discussions also highlighted the need for circularity to embed aspects of social sustainability and inclusive growth. A crucial aspect of circular practices is also the working conditions and safety of the workforce. This also becomes very relevant in light of the current COVID19 pandemic wherein the poor plight of migrant workers, contract labour, home based workers has come to fore as a glaring gap in the current system and industry set up

## WAY AHEAD

Over the course of last year (2019), significant headway has been made in mobilising stakeholders in a few significant apparel and textile sectors in the country. As part of its current interventions in Ahmedabad, Bangalore and Panipat, CRB aims to create Cluster Action Committees to facilitate the momentum on these dialogues and to undertake suitable action for both policy and practice action. However, there is **immense scope for interventions for Circular Apparel** and CRB will continue its efforts through potential areas of action such as:

- Facilitating CE dialogues in more textile and apparel clusters across the country to identify policy and practices areas
- Capacity building for stakeholders including policy actors in different clusters on potential for Circular Textile & Apparel
- Designing pilots for showcasing circular practices (e.g. How can local municipalities play a role in supporting reverse logistics for garment manufacturers to promote recycling)
- Documenting existing best practices and innovations for Circular Apparel
- Facilitate standard setting for circular apparel in India

## PARTNERSHIPS

CRB is looking for strong institutional partners who are committed towards creating a circular economy in the Indian textile and allied industries to explore **partnerships**. Given that the fashion industry will account for about 25% of global carbon budget because of increasing emissions by 2050, it is high time for the Indian value chain to incorporate a circular economy and unleash its full potential.

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# ANNEXURE I: FRAMEWORK TO ASCERTAIN CIRCULAR ECONOMY PRACTICES, POTENTIAL AND PRIORITIES ALONG DIFFERENT SEGMENTS OF THE TEXTILE & APPAREL VALUE CHAIN

		Fibre production	Textile production	Readymade garment (RMG) production	Logistics and retail	Post-consumer processing
	<b>Design</b> - Circular design (reduces environmental impacts, slows down or closes material cycles, prevents waste by design)	R&D on man-made fibres (less impact, more durability); design fibres/fabric suitable for recycling and other downstream circular activities	R&D to reduce material use. e.g. single-shot dyeing (saves chemical and water)	Circular Design guidelines for garments needs to be defined - for e.g as the Jeans Redesign guidelines by Ellen McArthur; Packaging material; design for easy repair and refurbishment of garments	design for sustainable reverse logistics	R&D on fibre separation and sorting, recycling
<b>Circular Economy Aspects</b>	<b>Raw Material - Conventional &amp; Alternative fibres</b>	availability of cotton for local spinning mills	Manufacturers should be incentivised to work with alternate materials. Single brands cannot influence	RMG manufacturers should be incentivised to procure sustainably produced fabric; traceability is important	tracability required - consumers should be able to make informed choices	Collection and sorting of post consumption apparel; assessment for different options - repair, refurbishing, recycle etc
	<b>Chemicals/Dyes/ Acids - rational/judicious use of chemicals, use of natural dyes, quality of chemicals/dyes used, etc.</b>	Organic fertilizers, herbicides	List of excluded chemicals, List of green and healthy chemicals needs to be identified		Import only green chemicals	R&D on chemical-based recycling
	<b>Waste - Material/ Water/ Hazardous Waste - reduction/minimisation in use of hazardous chemicals (generation of hazardous waste), scope of industrial symbiosis (waste from one industry as input for another one)</b>	Quality of raw material (cotton has seeds, leaves etc thus leading to higher wastage)	Integrated facilities are preferred as they can reuse waste in-house. Small scale players need logistics support to use waste sustainably	Reduce need for freshwater - use of technology to capture and reuse steam - Need to take stock of all available technology for reducing waste for various aspects	Plastic waste at retail	Sorting at source; directive to consumers to not dump garments/textiles with municipal waste
	<b>Energy - Grid Captive power plants Renewables Heat/energy recovery Process efficiency – modern equipment with lower energy consumption</b>		Use of energy efficient machines, clean energy. Equipment upgradation	Energy efficient technology, sources of clean energy	Use of cleaner transport, transport aggregation services (for reverse logistics)	Reverse logistics with less impactful options (electric powered vehicles); R&D on energy-efficient recycling equipment (fibre separation)
	<b>Water - Raw material – low-water intensive options (alternative natural fibres) Dyes – one-shot dyeing Process efficiency – lower water requirement Recycling – process water, effluent water treatment, recovered steam,</b>	less water-intensive fibres	Automation can lead to saving of water but challenging for smaller dyeing units due to space constraint in individual units; use recycled water	Common infrastructure development for smaller units (ETP, coloured water holding tanks, separate tanks for chemical sludge - to be recycled separately)		
	<b>Business models/practices - Circular Supply Chain/Resource Recovery/Product Lifetime Extension/Product as Service/Sharing Platforms</b>	Incentivise farmers to switch to alternative fibres		Place order to cluster, help clusters modify, Price points not the only consideration for suppliers	Buy back used clothes; provide collection points along with outlets	Collection, sorting and reverse logistics