

Promoting Understanding on Circular Economy in the Apparel & Textile Sector in India

7th August 2018, New Delhi

EVENT REPORT



1. Introduction

CRB has been keenly observing the developments at the international front on the issue of circular economy, especially from the relevance of circular economy principles in some of the key sectors of the Indian industry. Pursuing this, CRB has done research on the subject and had discussions with key stakeholders, especially in the apparel and textiles sector in India (refer Annexure III that presents the findings in a *brief*).

As a follow up and based on the findings, CRB organized a discussions with key actors in the Indian apparel and textile sector in New Delhi on 7th August. The objective of the consultation also was to *create understanding about the possibilities of promoting circularity in the Indian apparel and textile industry*, based on inputs from key stakeholders such as suppliers, brands, textile associations, government agencies and academia. Circular economy challenges the conventional linear production system of take-make-use-dispose by creating loops to ensure efficient use/conservation of resources and keep scarce resources in use for long. Another objective of these discussions was to explore the possibility of a stakeholder forum/platform on circular economy specifically to address the need and aspirations of the Indian stakeholders including private sector, government agencies, NGOs, research and academic institutions, UN agencies, industry associations, etc.

2. Brief Minutes of Proceedings

2.1 In his opening remarks, **Arun Asthana, Executive Director, CRB** made the following points:

- On 1st August, the world observed the **Earth Overshoot Day**. The significance of this day lies in the fact that on this day the earth’s consumption for the year 2018 exceeded the earth’s ability to regenerate those resources within that year. Based on current estimates; India needs 2.5 times its current resource base to support the current state of consumption. It is in this context that *Circular Economy* provides some guidance on how the continuous resource stress in a country like India can be relaxed a bit. Circular economy promotes sustainable consumption and production which is also one of the Sustainable Development Goals (SDGs – specifically SDG 12).
- The **principles** of *Circular Economy* are not new to the Indian philosophy or the way of life, when one considered these *Principles*, viz: (i) Design out Waste (ii) Keep Materials in Use for Long (iii) Regenerate natural systems (Source: Ellen MacArthur Foundation)
- CRB firmly believes that Circular Economy approach provides the much-needed guidance to Indian policymakers and practitioners to chart our future path of sustainable and inclusive economic development. He thanked the Okhla Garments and Textiles Cluster (OGTC) for extending support to CRB for carrying out the field survey.
- Findings from the CRB study suggest that the overall perception related to the context of circular economy is quite naïve. The Indian suppliers surveyed comprehend the situation from an **ethical point of view** and not from a **business**

strategy point of view, which means that they perceive it as something which is ‘good to do’ and hence doing it provides them with a sense of satisfaction. Although they are acquainted with application of **recycling** in the sector, the aspects of **reduction** and **reuse** have not yet gained much traction. Circularity practices followed by most of the Tier-I suppliers focus mostly on **waste management** practices and on **renewable energy application**.

2.2 The **Panel Discussion** which followed was chaired by **G S Krishnan, Regional President, Novozymes, India**. The panelists were:

- B N Satpathy, NITI Aayog
- Chandrima Chatterjee, Advisor, Apparel Export Promotion Council
- Raj Kapur, Vice President, Wearwell India
- Rakesh Kumar, Head of Environment, Sustainability & Regulation, Indian Chemical Council
- Dieter Mutz, Lead, EU-India Resource Efficiency Programme

In his opening remarks, Krishnan covered the following points:

- He mentioned the role that Novozymes has been playing in driving circularity as one of the leaders in providing sustainable solutions (bio-enzymes), over a period of more than three decades of work in India. This is particularly relevant as demand for textile products is rapidly growing; however there are several negative impacts on the environment.
- One of the key issues he thought was the mindset of Indian businesses and government, which is one of the biggest impediments to promoting circular economy or even other sustainability solutions.
- Circular economy provides a new set of business opportunities and hence there is a need for leveraging upon the risks to turn them into opportunities. He asserted that the growing demand in the apparel and textiles sector in India provides considerable opportunities for promoting circular economy practices.

Chandrima Chatterjee, Adviser, Apparel Exports Promotion Council (AEPC)

- According to her, sustainability is a domain which is new to AEPC. However, over the last few years there has been a deliberate attempt towards integrating sustainability into the mainstream activities of AEPC.
- She felt that challenges in promoting circularity can be overcome through the creation of successful ‘business cases’ and ‘good practice’ examples. For this she announced, that AEPC is happy to provide a platform for stakeholders and practitioners to create a national ‘Action Plan’ especially covering policy and practice level issues.
- This is critical, she felt as some of India’s competing countries (in apparel and textiles) have already developed such road-map.

Dieter Muetz, Programme Lead, EU-India Resource Efficiency Programme

- He emphasized on the importance of resource efficiency as a critical element for promoting circularity. He also explained that as part of the EU-India Resource

Efficiency Programme, the following elements are being covered: (i) sector assessment, (ii) linkages and cooperation between EU and Indian businesses and (iii) capacity building and networking. He also mentioned that the programme was also supporting the Indian government in its tasks as a Member of G-20 Resource Efficiency Group. Further, four sectors were being covered under this project: construction, photovoltaic (solar panels), electric mobility and e-waste.

- He mentioned that there have been some discussions about the possibility of including apparel and textiles sector as the other sector. The discussions from this event can provide valuable inputs in this regard.
- The government of India is serious about promoting RE/CE and a ‘strategy’ has been developed under the auspices of NITI-Aayog in late 2017 – which provide an idea of the road ahead.

Rakesh Kumar, Head of Environment, Sustainability & Regulation, Indian Chemical Council

- He mentioned that ICC has all chemical manufacturers as members. This includes a number of the chemical companies that provide inputs to the textiles sector.
- ICC has been pursuing the *Responsible Care (RC)* program as a chemical industry initiative, which calls on companies to demonstrate their commitment to improve all aspects of chemical handling/management particularly covering - protection of health, safety and environment. The RC program accords considerable importance to safety of the workers in handling hazardous chemicals.
- According to him, water reuse and waste water management are key challenges that require immediate attention. However, he felt that there are policy related issues that need to be dealt with for promoting circularity in the sector. Lack of relevant data also poses a challenge.
- At present 40 enlightened industry groups hold *Responsible Care (RC)* logo (industry-led standard) in the country, while a total of 125 industries are signatories to the programme, pursuing implementation of a set of codes of management practices.

Raj Kapur, Vice President, Wearwell India

- According to him, sustainability is not any more an option, but a compulsion for businesses these days – and particularly in the textiles sector.
- From the point of circular economy, he emphasized that recycling and repairing – which were strong points of the apparel industry in India, seem to be waning as far as current practices are concerned. Wearwell has been working with brands and partners for integrating sustainability across the fashion value chain.
- He gave the example of fabric waste reuse done in *Panipat*, wherein these wastes are converted into rugs and blankets to be supplied to the government/other organisations to offer to homeless and during post-disaster relief.
- He also stated that circularity in the textile sector provides a lot of opportunities and hence it a forward-looking, domestic agenda and actions should be developed and pursued. At the factory level, efforts can be made in minimizing waste and moving towards a *zero waste to landfill* regime.

2.3 A **Roundtable Discussion** followed this panel and was chaired by **Rene Van Berkel, Representative, Regional Office UNIDO**. He kick-started the discussions with the following points:

- UNIDO has been pursuing the subject of circular economy focusing three important factors, viz. (i) maximum utilisation of renewable energy (ii) enhance productivity (do more with less) and (iii) recycling/recovering perpetually. He asserted that operationally, there are 5 most popular business models and 3 disruptive business strategies when it comes to promoting circularity. The disruptive strategies are: (i) industry 4.0, (ii) additive manufacturing and (iii) biotechnology (bio-enzymes)
- He also pointed out that circular economy based actions should be so designed in the apparel and textiles sector that it is able to address the most pressing challenges in the sector, viz.: (i) accountability and transparency in the supply chain, (ii) adverse environmental impacts (discharge of hazardous waste) and (iii) change in market conditions (small orders, short turn-around time)
- According to him, several innovations are happening in India which can fit into circularity approaches. He gave the example of Arvind textiles (which is doing a great job with recycling of water, producing energy out of waste and using recycled materials in their denims).
- He added and clarified that circular economy is not only about environmental sustainability – but is equally cognizant on social sustainability (especially from the perspective of workers and the community)

2.4 The following points emerged from the floor discussions which ensued:

- H&M has focused a great deal on sourcing only sustainable materials for its manufacturing processes. Further the company has also invested considerable attention on developing a holistic approach to CE by focusing on various stages from design to post-consumer use. H&M feels there is a need for active collaboration with other brands and manufacturers in order to integrate CE practices in the value chain. The need to focus on behavior change (mindset and attitude) was also raised.
- A point was also raised about the role of bulk buyers/consumers (quoting example from the police force, hospital and airline staff uniforms in some EU countries). Could similar approaches be made popular in India?
- Speaker from the Dutch Embassy mentioned about the need for incentives for manufacturers to practice CE in India, and that there was a need to highlight these incentives. On the point of collaborations, it was mentioned to extract lessons from partnership initiatives like the German Textile Partnership, Dutch Covenant on Apparel & Textiles – both of which are active in India.
- A representative from UNEP India highlighted three areas to be considered (i) use of less resources (ii) safe handling and disposal of materials and (iii) the need for more productivity.
- A point was also raised about the current emphasis on cotton as the main raw material for textiles, and the fact that cotton was a water intensive crop. So, will circularity promotion also lead to exploration/promotion of other raw materials
- A fundamental point was raised that sustainability should not be confused with circularity – as one is a tool/approach to achieve the other

- A senior representative from NITI Aayog emphasized on the fact that the circular economy should be considered as a key component for the Indian industry (including apparel and textiles sector)– as conceptually, circular economy approach would add to the country’s GDP. However, he also asserted that a key element of circularity in the sector is re-design, which is presently a weakness in Indian industry.

Closing Remarks

In his closing remarks **Rijit Sengupta, Chief Operating Officer, CRB** highlighted the following points:

- There is a need for developing an action agenda on circular economy for the Indian manufacturers and supply chain actors, with support and cooperation of international brands/businesses that have been champions on Circular Economy in the world
- Some of the elements of such an agenda could include:
 - Creating awareness across various clusters/supply chain actors in the A&T sector
 - Capacity building of managers in A&T suppliers and industry experts about techniques to compute cost savings from adopting CE practices
 - Developing action points for zero-waste-to-landfill
 - Promoting responsible handling and management of chemicals
 - Policy analysis and engagement with policymakers

Adding his voice to in conclusion, **Pranjal Goswami, Head of Sustainability, Novozymes India** mentioned:

- Circular economy and sustainability practices/performance are closely related
- Adequate research and innovation needs to be carried out to promote CE practices in the textile and apparel sector
- A platform comprising multiple-stakeholder could be considered to focus on some of the actions that have been highlighted earlier to raise awareness and build capacity of key stakeholders within the apparel and textiles sector

Annexure I: Agenda

Timing	Sessions
3:30 - 4:00 pm	Registration
4.00 - 4.10pm	Welcome Remarks: Arun Asthana, Executive Director, CRB
4.10 - 5.30 pm	<p>Panel Discussion: Circular Economy in the Indian Apparel and Textile Sector – Issues and Opportunities</p> <p>Chair: GS Krishnan, Regional President, Novozymes India</p> <p>Panelists:</p> <ul style="list-style-type: none"> - Sonu Singh, Joint Director, MOEF&CC - B N Satpathy, NITI Aayog - Chandrima Chatterjee, Advisor, Apparel Export Promotion Council - Raj Kapur, Vice President, Wearwell India - Rakesh Kumar, Head of Environment, Sustainability & Regulation, Indian Chemical Council - Dieter Mutz, Director, Indo-German Environment Programme, GIZ
5.30 – 5:40 pm	Tea Break
5.40 – 6:40 pm	<p>Open Roundtable: Promoting the Agenda of Circular Economy in Apparel & Textiles Sector in India</p> <p>Moderator: Rene Van Berkel, Representative, Regional Office UNIDO</p> <ul style="list-style-type: none"> - Circular Economy in Textile: Need for a Paradigm Shift in Approach - Embedding Circular Economy Principles - Sustainable Style: A New Fashion Agenda - Developing products for a circular economy: Elimination of Textile Waste and Creating Value - Need for a Multi-stakeholder forum/platform
6.40 to 7.00pm	<p>Concluding Remarks: Way forward towards promoting circular economy in Indian apparel and textile industry</p> <ul style="list-style-type: none"> - Rene Van Berkel, UNIDO - Pranjal J. Goswami, Head, Sustainability, Novozymes - Rijit Sengupta, COO, CRB
7.00pm onwards	Drinks & Dinner

Annexure II: List of Participants

Sl No	Name	Organisation
1	Johanna-Victoria Barcia	VARNER
2	Stephen Meston	VARNER
3	Dipankar Bose	VARNER
4	Anupam Prasad	Inditex
5	Mamta Malhotra	H&M
6	Prashanth Hegde	TEX-Zipper
7	J D Giri	Shahi Exports
8	Neeraj OGTC	OGTC
9	Chandrima Chatterjee	AEPC
10	GS Krishnan	Novozymes
11	Ashish kumar	GIZ India
12	Sonal Jain	GIZ India
13	Jitendra Sharma	UNEP India
14	Rene Van Berkel	UNIDO India
15	Jagdish Banga	Panorama Exports Pvt Ltd
16	Raj Kapur	Wear Well India
17	Deepa Chaudhury	FICCI
18	B N Satpathy	NITI-Aayog
19	Dev Nathan	GPN-Studies
20	Dieter Mutz	GIZ India
21	Trushit Desai	GIZ Ganga Rejuvenation Project
22	Pranjal Jyoti Goswami	Novozymes
23	Shanmugam Sambanthan	Novozymes
24	Kanak	Novozymes
25	Radhey Kaushik	Novozymes
26	Santonu Kashyap	Novozymes
27	Michiel Bierkens	Dutch Embassy
28	Maya Acharya	Dutch Embassy
29	Arun Asthana	CRB
30	Rijit Sengupta	CRB
31	Ria Sinha	CRB
32	Zineida	UNIDO India
33	Narendra Nath	Team Krian
34	Bahaar Pandey	TERI SAS
35	Souvik Chatterjee	TERI

Annexure III

Promoting Understanding on Circular Economy in the Apparel & Textile Sector in India (Briefing Note & Suggested Actions)

I. Introduction

‘Circular Economy’ is a concept that has gained considerable popularity among sustainability practitioners. It uses a language that is comprehensible by business and industry actors, who can champion ways to reduce the growing stress on our natural resources. The concept is presently being promoted among others by countries like Finland, Sweden, Netherlands and several big businesses and brands. The growing popularity of circular economy can also be attributed to the ‘business opportunity’ it offers, estimated currently at \$ 1,000 billion annually (McKinsey, 2014)¹.

According to the Ellen MacArthur Foundation a leading champion on the subject, ‘a circular economy aims to redefine growth, focusing on positive society-wide benefits. It entails gradually decoupling economic activity from the consumption of finite resources, and designing waste out of the system. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural, and social capital’, thereby looking beyond the conventional take-make-dispose extractive and linear industrial model, based on its three principles (i) Designing out Waste and Pollution (ii) Keep products and materials in use (iii) Regenerate natural systems (EMF, 2013)².

II. CRB’s Study

The Indian textiles sector is one of the largest contributors to India’s exports (13%), contributing 14% to industrial production and 4% to the country’s GDP. With over 45 million people employed in it, the industry is one of the largest job providers in the country. The size of India’s textile market in 2016 was around US\$ 137 billion and is expected to touch US\$ 226 billion by 2023, growing at a CAGR of 8.7 percent. At the same time, the Indian textile sector has also been a subject of attention for some of its adverse social and environmental impacts. Strictly from an environmental point, in addition to being a water intensive industry, the process of manufacturing also involves use of a number of chemicals (for various different processes)³. Further, various types of ‘textiles waste’ is generated both during the process of manufacturing (yarn to fabric) and post-consumer use, which finds its way ultimately into landfills across Indian cities. Years of research has demonstrated that a significant ‘value’ can be recovered if the industry is able to find ways to reduce, re-use and recycle some of these materials.

Cognisant of such possibilities, many international brands have conveyed their ambition to make fashion circular⁴. Given many of these brands and buyers source their products from India, our

¹ Refer:

https://www.mckinsey.com/~media/mckinsey/dotcom/client_service/sustainability/pdfs/towards_the_circular_economy.ashx

² Refer: <https://www.ellenmacarthurfoundation.org/circular-economy/overview/concept>

³ Refer: <https://www.quora.com/Which-chemicals-are-mostly-used-in-textile-industries>

⁴<https://journal.lablaco.com/copenhagen-fashion-summit-2018/>

country (and the stakeholders) need to be ready to be part of such a revolution – and benefit from the same. From opinions of industry players and experts it is clear that some discussions (here and there) have already started. Given the above background, CRB undertook a **study** to assess the current awareness level among apparel and textile stakeholders in India and the nature of discourse. Specifically, through this study CRB endeavored:

- To identify current practices aligned with the principles of circular economy in a textile and apparel cluster (in Delhi NCR);
- To assess understanding and the role of certain stakeholders (industry associations, national and state governments, knowledge organisations) in providing support to suppliers for furthering ‘circular economy’ approach in the sector;
- To assess critical concerns and specific opportunities for the Indian textile sector, going forward

Over the course of this study CRB considered secondary literature on the subject and also interacted with a number of stakeholders including textile brands, suppliers, dealers/vendors, industry associations, experts and the academia. Discussions with these stakeholders were undertaken through personal interviews using questionnaires and structured interview schedules. The principles of circular economy⁵ framework formed the basis of these tools. The Okhla Garment and Textiles Cluster (OGTC) offered support in facilitating CRB’s discussions with their members in that cluster.

III. Emerging Findings

Some of the emerging findings from CRB’s research and discussions are provided below:

❶ There is little **awareness and understanding** about the concept of ‘circular economy’ among most of the industry stakeholders. It is evident that in spite of the advancement in the subject in their home countries, brands and buyers **haven’t done enough** to convey the benefits from a ‘circular economy’ approach even to their *Tier-1* suppliers.

❷ Suppliers contacted during the study considered the need to reduce more from an **ethical point** of view - something which is ‘good to do’ and thereby provides them with a sense of satisfaction. However, there was little realisation about its criticality from a **business strategy point**.

❸ Advocates of circular economy explain how the concept manifests itself through various simple measures: **reduce, reuse, recycle, repair, redesign** and **recover**. Stakeholder’s understanding about ‘circular economy’ was largely limited to recycling, with little or no reference to the other ‘R’s.

❹ There was a tendency among **stakeholders** to consider ‘circular economy’ as a generalised environmental sustainability concept.

❺ **Industry actors** asserted that applying ‘circular economy’ practices would pose a heavy **cost burden** on the industry. This would affect their competitiveness, especially given long pay-off periods (from buyers) and little governmental support.

⁵ Principles of Circular Economy used in this project: (i) *Designing out Waste and Pollution* (ii) *Keep products and materials in use* (iii) *Regenerate natural systems* (EMF, 2013)

⑥ Managing **reputational risks** and **gaining recognition** were the key motivations for **brands** for taking interest on the subject of circular economy. The understanding of **business benefits** (business case) among **suppliers** was very limited. They were not equipped with skills to **compute benefits** of adopting circular economy practices vis-à-vis their bottom-line.

⑦ Brands recognize the contribution of circularity (integration of CE principles) in their manufacturing process and have been part of several **collaborative initiatives** (with others) to **promote circularity**. However, given limited engagement (awareness building) by brands with suppliers on this subject, there is little interest presently among most suppliers on this subject.

IV. Priority Interventions & Action Areas

PRIORITY INTERVENTIONS

Based on the above points and further discussions with experts, some of possible areas for priority intervention are summarised here:

Brands	Suppliers
<ul style="list-style-type: none"> • Regular interactions suppliers to build their awareness about circular economy practices, and specifically ‘business benefits’ thereof • Engagement with local design Institutions to promote designs that waste less textiles • Engagement with policymakers to enable specific policies (programmes) to promote circularity in the apparel and textiles sector • Increasing options for procuring sustainable raw materials • Support multi-stakeholder forum/platforms for sharing lessons, good practices on circular economy approaches in the textile sector 	<ul style="list-style-type: none"> • Cluster level approach for downstream use/disposal of wastes (non-hazardous materials and textiles waste) • Develop capacity to compute business benefits from adoption of ‘appropriate’ circular economy practices • Interventions for addressing water scarcity issues • Support and linkage with government programmes and incentives

ACTION AREAS

Based on the above suggested areas of intervention, the following ‘action areas’ have been enumerated:

	Present Interventions	Future Action Areas
Industry Association	Provides updates in terms of new waste management and water reutilization techniques; facilitates collection of non-hazardous wastes; demonstrates strong commitments towards energy efficiency (LED lights)	Initiating a system of engaging with actors in the fabric yarn and accessories supply chain; create cluster-specific (cost-saving) systems for effective waste management
Government (State and National)	State government offers 30% rebate on installing ETP, rebates for purchasing environmental friendly machines	Create awareness through road shows and programmes; support environmental infrastructure development; establish linkages with specific government programmes (that support circularity)
Academia	Sustainability integration in graduation and post-graduation syllabus; integration of concepts of ‘slow fashion’ as against ‘fast fashion’	Capacity building workshops for designers to integrate ‘circular economy’ approaches to ensure reduction in textile waste
Brands	Integrating circularity into the design process by accounting for longevity, durability and the recycling capabilities of the products; annual audits of suppliers	Engagement and support (including financial support and incentives) to Tier-I and Tier-II suppliers for uptake of circularity measures; continuous education of suppliers about benefits of circular economy in apparel and textile
Suppliers (Manufacturers)	Technological advancement in waste water management; water harvesting initiatives	Recycling of waste water; reuse of textile waste for making high-quality up-scaled products (like uniform, designer quilts, etc.)
International Agencies & Standard Bodies	Conducting research; promoting voluntary sustainability standards (VSS) along the supply chain	Ensure that there is a ‘level playing ground’ in the relationship between brands and suppliers; enabling continuous engagement/discussions with key stakeholders; explore multi-stakeholder platforms on circularity approaches as a ‘learning and sharing platform’