

## 1. Background

Government of Gujarat has developed 'Gujarat Sustainable Vision 2030', which allocates responsibility to various key organs of the Government of Gujarat to develop roadmaps for meeting Sustainable Development Goals in the State<sup>1</sup>. A key activity under this initiative is to map existing policies, schemes of the Government with specific Sustainable Development Goals.

SDG No.	Name of SDG	Total Depi
1	End Poverty	
2	Zero Hunger	
3	Ensure Healthy Lives	
4	Ensure Quality Education	
5	Gender Equality & Women Empowerment	
6	Ensure Sustainable Management of Water and Sanitation	
7	Access of Affordable and Sustainable Energy	
8	Promote Sustainable Economic Growth, Productive Employment and Decent Work	
9	Resilient Infrastructure and Sustainable Industrialization	
10	Reduce Inequality	
11	Make Cities and Human Settlement Safe, Resilient and Sustainable	
12	Ensure Sustainable Consumption and Production patterns	

Fig1: Mapping of Govt Policies/Schemes with SDGs by Department of Planning, Govt. of Gujarat (Dec 2018)

Some of the Departments have developed roadmaps for achieving SDGs (e.g. SDG Roadmap for Health in Gujarat<sup>2</sup>)

The Gujarat Industrial Policy 2015 will expire in December 2019. This offers a great opportunity for the new Industrial Policy to incorporate elements of Sustainable Development Goals, that are most aligned with industrial expansion and development of the State. It is in this context that Centre for Responsible Business (CRB) would like to suggest through this 'Note' that the new Industrial Policy incorporates 'circular economy principles'<sup>3</sup> – as it has been explained below. This would enable the Gujarat to balance aspirations of industrialisation with stewardship of natural resources.

The Indian textile and apparel industry, in particular, is in need for urgent transformation, owing to slowdown in the global economy and widespread pollution caused by the sector.

Globally, the textile sector is witnessing a shift to sustainable practices. Customers as well as brands are demanding sustainable products. Suppliers and manufacturers have also adopted sustainable practices to remain competitive. 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. In turn, the choices made by brands and their suppliers have impact on natural ecosystems, resources and societies (working conditions, wages, etc.). Awareness among consumers has prompted brands to increase transparency in their supply chains, with clear responsibility on manufacturers, suppliers and

<sup>1</sup> Refer [http://niti.gov.in/writereaddata/files/Gujarat\\_0.pdf](http://niti.gov.in/writereaddata/files/Gujarat_0.pdf)

<sup>2</sup> <https://guihealth.gujarat.gov.in/images/pdf/SDG-Roadmap-for-Health-in-Gujarat.pdf>

<sup>3</sup> Circular Economy is embedded in Goal12 of the Sustainable Development Goals (SDG 12) – 'sustainable consumption and production'

raw material providers to make sure their processes are environmentally and socially sustainable.

The Indian textile and apparel sector has historically been a global supplier of raw material and finished goods for consumption in domestic and foreign markets. It is highly diverse; from decentralised handloom weavers to highly sophisticated mills, all feature in the Indian textile landscape. The first mill was set up in near Calcutta in 1818; the industry took off in 1854 with mills coming up in Bombay<sup>4</sup>. *In the 2017-18, India's exports were valued at about USD 39 billion, and is set to rise to over USD 80 billion by 2021.*<sup>5</sup> This implies that the Indian textile industry will require upgrading its practices and processes to remain competitive in the global market.

The suppliers and manufacturers will stand to gain the most if they proactively adopt the best practices and innovate in policy, and get ready for the transformations coming up in consumer and brand choices. Similarly, the Indian government, both at state and national levels, must create favourable policies that can support transition to sustainable practices. The central government had announced 100% FDI through the direct route<sup>6</sup>; domestic manufacturers may face stiff competition from foreign firms setting up shop in India in coming years.

Gujarat has all the components of the textile value chain: from farm to fabric to apparel. The journey began in 1861, with the first cotton mill coming up in Ahmedabad. The Ahmedabad textile hub grew rapidly and rivalled the mills in Bombay. Today, Gujarat has more than 1500 small and medium textile units, and contributes 12% to India's textile exports.<sup>7</sup> Thus, Gujarat is a key player in the Indian industry's landscape. *The principles of circular economy hold the key to holistic transformation.*

## 2. Circular economy

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. Ideally, a circular economy would run wholly on renewable energy. The Ellen Macarthur Foundation lays down the following three principles for circular economy:<sup>8</sup>

- Design out waste and pollution
- Keep products and materials in use
- Regenerate natural systems

Sustainability issues like climate change, pollution, malnutrition, and unemployment are urgent, and can't be solved by incremental actions, that fail to nudge the system from status quo. The Circular economy principles provides a framework and means to transform the system and address these issues. There are numerous cases where circular business models and practices have improved not only resource efficiency, but also improved livelihoods of stakeholders.

Circular practices are quite common. It is not a new concept; but the application of the concept in a holistic manner, to an entire sector or an economy is a more recent attempt.

<sup>4</sup> Fibre2Fashion. <https://www.fibre2fashion.com/industry-article/543/indian-textile-industry>

<sup>5</sup> Accessed at <https://www.ibef.org/industry/textiles.aspx> on 14 Dec 2019

<sup>6</sup> Ministry of Textiles. <http://texmin.nic.in/fdi-cell>

<sup>7</sup> Vibrant Gujarat. Accessed at <http://vibrantgujarat.com/writereaddata/images/pdf/textile-sector.pdf> on 14 Dec 2019

<sup>8</sup> Ellen Macarthur Foundation. Circular Economy in Details. Accessed at <https://www.ellenmacarthurfoundation.org/explore/the-circular-economy-in-detail> on 14 Dec 2019

### 3. Promoting Circular Economy in Gujarat's Textile Industry

Centre for Responsible Business, in association with Intellectap, Fashion For Good, and National Institute of Design, Ahmedabad and supported by the C&A Foundation and International Development Research Institute (IDRC) Canada, has held two rounds of stakeholder consultations in Gujarat between August and November 2019, involving representatives from the Gujarat textile industry, academia and think tanks to solicit input on circular economy priority areas and policy requirements for the textile Industry.

Based on these discussions, CRB proposes the following inputs to be considered for Gujarat's new Industrial Policy:

- *Content law required* – A law should be made which makes it compulsory for the manufacturer and retailer to declare the exact content (fabric fibres) used, so that consumers can make an informed choice. It should also specify inputs for apparel, in line with recycling requirements. The law should cover various aspects like labelling, fibre tracability, as well as production parameters (as guidance for manufacturers). The Ministry of Textiles and the Ministry of Commerce and Industry will be the key regulators for bringing in such policies.
- *Advisory for using natural dyes/sustainable chemical use*–lower GST rates for textile and or/apparel produced with natural dyes can be an incentive for manufacturers to switch to cleaner and greener chemicals. Chemicals used in the industry are the largest source of land and water pollution in this sector, given that effluent treatment facilities are not adequate at most hubs. Government should promote R&D in natural dyes for the textile sector
- *Incentivize local infrastructure* – baling of cotton degrades its quality, leading to loss in value. Setting up small yarn production units in proximity to cotton production centres will eliminate losses due to baling and transportation. Gujarat accounts for about 33% of India's cotton production. This would provide additional entrepreneurship opportunities (on-site industrial processing on/near farms). The Mudra loan scheme can be tweaked to provide institutional support to entrepreneurs who want to set up small units near natural fibre production centres.
- *Policy on renewable energy*– Renewable energy must be incentivized over conventional energy. DISCOMs, Gujarat state electricity board can collaborate to set up dedicated micro-grids for textile and apparel hubs. Waiving off the wheeling charges for renewable energy can make it easier for operators to supply to the grid.
- *Training/skilling* – higher-order skills should be imparted; industry should be consulted about the kind of training required. Industries have claimed that skills imparted by the Integrated Skills Development Scheme (ISDS) were not sufficient to raise worker productivity, or were not aligned with exact requirements. Circular economy transition would need workers trained in repair, refurbishment, redesign, etc.
- *Post-consumer processing* – regulations should be issued banning dumping of textile waste into landfill streams, burning, etc. Collection, sorting, and recycling units must be set up to provide alternative means of disposal.
- *Issue advisory on textile production parameters and processes* – guidelines should be published to indicate the acceptable percentage of waste at each stage of production, along with water, energy and chemical consumption. The standard input output norms

(SION) can be modified in the lines of circular economy principles. Evidence from Vietnam shows that laser cutting creates 1% waste, as compared to manual cutting where waste goes up to 5% of fabric. Smaller units which may face cost barriers in introducing new technology, should be connected with up-cyclers/recyclers who create new products with textile waste.

- *Innovative collaboration between stakeholders* – government bodies like the municipalities can collaborate with the industry actors to find solutions on waste water treatment, conservation, solid waste prevention and management. Further, the government and the private sector should collaborate with design institutes like NID and NIFT to come up with innovative designs, patterns and other techniques to support circular transition.
- *Sustainable Public Procurement*– Public procurement can play a big in transition. Sustainable procurement guidelines should be issued for buying uniforms for officers, police force, workers, etc. as well as miscellaneous cloth materials. Ideally, uniforms and other materials made from recycled fibres or textile waste or eco-friendly fibres should be procured. This would nudge suppliers to look into alternative fibres, green production processes, as well as decent working conditions/wages, etc.
- *Research and development* – Investment is required in R&D on alternative fibres, and separation of mixed fabric content.
- *Quality Norms for Products made from Recycled textiles/textile waste* – Products containing recycled textiles/textile waste should undergo rigorous checks, for quality and contamination. This would instil confidence in buyers and consumers, leading to greater market value for recycled materials.
- *Innovation at the MSMEs should be promoted (including handicrafts), focussing on in-situ technical/technological innovations* – evidence from Ahmedabad and Vadodara suggests that small-scale on-site innovations, like bio-remediation units for effluent treatment, are both viable and effective. Official case studies should be documented and scaled/replicated elsewhere.