

Ground level evidence-based suggestions for integrating circular economy in Karnataka's Textile Policy (draft)

Background

Karnataka accounts for about 20% of India's garment production. The textile and apparel sector in Karnataka accounts for two-thirds of the state's industrial output, apart from being a major source of employment. Karnataka also produces nearly half of India's mulberry silk, 12% wool and 6% cotton.¹ The government of Karnataka has announced the New Textile & Garment Policy 2019-2024, with a vision to create 5 lakh jobs, and attract investments worth Rs 10,000 crores. The government has earmarked Rs. 2283 Crores to implement various elements of the Policy. Development of clusters with common infrastructure like waste treatment and disposal facilities, etc. will be undertaken.² Among the strategies that would be adopted to achieve this vision, *increasing resource efficiency* and *decreasing environmental impacts* are prominent. The Policy mentions "Zero Effects; Zero Defects", and "Increase manufacturing cost competitiveness" among the desired targets.

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

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:³

- 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 provide a framework and means to transform the system and to address these issues. There are numerous cases where circular business models and practices

¹ Karnataka New Textile Policy 2019-2024.

http://www.karnatakadht.org/english/pdf/order_new_textile_and_garment_policy_2019-24.pdf

² <https://www.thehindubusinessline.com/news/national/karnatakas-new-textile-garment-policy-2019-24-to-attract-10000-crore-investments/article29845545.ece>

³ Ellen Macarthur Foundation. Circular Economy in Details. Accessed at

<https://www.ellenmacarthurfoundation.org/explore/the-circular-economy-in-detail> on 14 Dec 2019

have improved not only resource efficiency, but also improved livelihoods of stakeholders. Circular practices are quite common, but the application of the concept in a holistic manner, to an entire sector or an economy is a more recent attempt.

Incorporating circular economy in Karnataka's Textile Policy

Material use

- A standard needed for material use (sustainable materials, reuse and repurpose, recycled content, end-of-life, etc.) in textiles. Percentage of virgin fibre used could be regulated; this would have to be coupled with stringent quality norms. A standard for recycled material use would help both manufacturers and consumers to make informed decisions. Labelling would be needed on apparel, declaring content.
- Landfilling of fabric wastes (pre-consumer) and apparel waste (post-consumer) should be banned.
- Collection mechanism for both of above waste streams is necessary. Policy for non-hazardous waste collection can reduce material loss that occurs due to landfilling. Success solid waste management practices at city level can be studied e.g. Ghent (Belgium), Indore etc.
- EPR policies/targets could be looked into for readymade garments (RMG).
- Government can boost start-ups working on traceability (through blockchain, etc.); services provided by such firms can help brands and suppliers to keep track of material flow. Start-ups with circular textiles and apparels business models should be incentivised
- Lower GST rates could potentially be offered to manufacturers who incorporate recycled materials while maintaining quality.
- Employment generation would be boosted by circular economy models such as those provided above.

Water

- Partial use of recycled water in textile and garment manufacturing should be mandatory; adequate capacity for water treatment infrastructure should be ensured under the "common infrastructure" provision of Karnataka's new textile policy. Such facilities will treat both industrial sewage water generated in the clusters, as well as municipal sewage water supplied by the government.
- The state government can further incentivise this approach by providing discounts on municipal taxes to units using recycled water (proportional to percentage of recycled water used).
- KIADB could be an important agency to implement such provisions.

Technology

- Schemes like TUFs should be amended to enable industries to switch to technologies that have proven capacity to reduce water, energy and chemical consumption. New, efficient technologies are often costly, and is difficult for smaller units to invest in, leading to overall loss of opportunity for the sector.
- Government can incentivise smaller units to set up bioremediation units that have proven to be cost-effective in some clusters in Gujarat and Rajasthan. Such units can typically be set up with a few lakh rupees; this amount could be provided as an interest-free loan

- Public research institutes focused on textiles could be provided grants under PPP models to research mechanical and chemical recycling techniques, along with alternative fibres. International brands often place orders with SITRA, NITRA, etc to evaluate materials in certain fabrics; their capacities could be shored up with focused support.

Energy

- Electricity Act has to be amended to mandate DISCOMS to distribute 35-50% renewable energy, depending on availability/supply. Currently, industry is the only customer of DISCOMS that generate revenue (agriculture and domestic consumers are either subsidized or receive electricity for free). Encouraging renewables would hurt their revenue stream. Their disadvantage could be offset by regulated pricing for a fixed period; during this period DISCOMS and power generators can invest in cost-effective storage and distribution mechanisms, allowing them to function on lower revenues (costs of renewables are significantly lower once initial investments (CAPEX) are completed.)
- Hybrid policies should be drafted soon (solar + wind + BESS (battery energy storage systems)). Such systems would be able to provide better reliability of energy supply as compared to stand-alone solar or wind systems. This would incentivize the industry to show greater interest in green energy.

Waste

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