# Arvind Ltd.

## Business Context

Established in 1931, Arvind Limited is the flagship company of the Lalbhai Group, one of the largest textiles manufacturer and exporter in India. It caters to the pressing needs of quality textiles and continues to be ranked amongst the top suppliers of fabric worldwide. The activities of the organization are directed from the headquarter based in Ahmedabad, Gujarat with its production units spread over Gujarat, Maharashtra and Karnataka in India and one unit in Ethiopia.

Arvind is involved in the process of making fabrics with cotton as the key raw material accounting for 80% of all products. With altered climate variables such as delayed monsoon, increase in drought and erratic rainfall, as well as increase in growing season length, securing an uninterrupted supply of cotton has become a concern for Arvind.

This dependency on cotton has led Arvind to focus on the sustainability of their cotton supply and reduction of the negative environmental impacts caused during cotton production. Management has strengthened the cotton portfolio by directly sourcing sustainable cotton from farmers who are engaged in practicing Better Cotton Initiative principles (BCI), encompassing practices like integrated crop protection, water stewardship activities, nurturing soil health, enhancement of biodiversity and responsible land use, care for preserving fiber quality, promotion of decent work and effective land management. Likewise due to rising brand and customer awareness, Arvind has been continuously engaged to improve traceability across the value chain.

## Assessment

### WHY? What was the objective of the assessment?

To improve responsible sourcing and transformation of the cotton production sector towards sustainability, Arvind carried out an assessment to evaluate the human and ecological cost of water use per kg of seed cotton produced under BCI principles and compare this to conventional practices.

Through this assessment they anticipate better understanding regarding some of the capital risks associated with water use, as well as gaining an overview of other possible impacts that could be material in the long term. They also hope to engage with customers to find opportunities of including more sustainable products in their portfolio.

### WHAT? What was the scope of the assessment?

Arvind decided to focus their assessment on upstream natural and human capital impacts associated with BCI cotton projects in Gujarat, India. To compare the two sourcing strategies, a baseline of the 2019-2020 cotton season was used and the study was carried out over one year.

An extensive materiality assessment using the criteria of risks and opportunities visible to Arvind (operational, legal and regulatory, financing, reputational and marketing and societal) showed 3 key impact drivers related to their objective:

1. Water use
2. Pesticide, herbicide and fertilizer use
3. Salaries and benefits

For the purposes of this assessment, Arvind decided to focus on water use and plan to carry out valuations for the remaining material impact drivers at a later date.

## HOW? What was measured and valued?

Arvind carried out a monetary assessment to measure the economic value of impacts on human health and ecosystem quality per kg of seed cotton production. They started by drawing a pathway showing the impact of their water use on the capitals and the consequence on business and society:

| Impact driver | Change in capital | Consequence |
|---|---|---|
| Water use | **Natural Capital**: Reduced effect of freshwater consumption on terrestrial ecosystem quality in watershed<br>**Human capital:** reduced impact on human health | **Impact on business**: Lower water consumption leading to low irrigation costs for farmers, improved access to sustainable cotton, securing supply<br>**Impact on society:** Benefits on health of people and enhancement in ecosystem quality |

To carry out the valuation of this pathway, Arvind first measured the consequence of their water use, then went on to value it in monetary terms.

*Measurement*

**Human health:** damage to human health was measured using Disability-Adjusted Life Year (DALY) estimates for water consumed in the production of 1kg cotton seed.

**Ecosystem quality:** damage to ecosystem quality (EQ) was measured through estimates of potentially disappeared fraction of species, which compounds species richness and net primary productivity per hectare.

*Valuation*

**Human health:** To value a DALY, the Value of a Life Year valuation figure based on Desaigues et al, 2006, at 0.5 income elasticity European estimates is used.

**Ecosystem quality:** To value ecosystem damage, benefit transfer methodology was used. This took values of damage to terrestrial ecosystems due to water loss from Trucost (2015), as well as ecosystem service values for the specific project regions in India from the Ecosystem Service Value Database.

## WHAT NEXT? What were the results of the assessment?

The assessment found that the human health cost associated with BCI cotton farming is $0.009 per kilo less than conventional farming. Similarly, in terms of ecosystem quality, the damage intensity of BCI practices is 0.31$/kg lower than conventional cotton farming. This means a 49% reduction in damage to human health & ecosystem quality per kg of seed cotton produced under BCI practices compared to conventional practices.

Based on these results, Arvind was able to conclude that BCI practices have positive environmental and social implications compared to conventional cotton practices. As a business with a large dependency on cotton as a primary raw material, this assessment developed Arvind's understanding of the significant dependence on ecosystem services as well as previously unrecognized risk to both business & society.
The assessment has provided a more holistic picture of Arvind's BCI portfolio and a justification for incremental shifts to other sustainable cotton project. Arvind will use the results of this assessment in creating a business case to expand sustainable sourcing, educate various stakeholder and explore options to extend this study to other sustainable cotton portfolios.

In future, Arvind will inculcate capital's approach into their sourcing strategy, and use the TEEBAgriFood evaluation Framework to explore and deepen their understanding from other impact drivers and dependencies like pesticide use, workforce, soil health, emission & waste reduction, resource circularity point of view.