

Threading the needle

Weaving the Sustainable Development
Goals into the textile, retail, and
apparel industry



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Introduction: Sustainable Development Goals in the textile, retail, and apparel industry

A message by Textile Exchange

The 17 Sustainable Development Goals (SDGs) are part of the 2030 Agenda for Sustainable Development, to achieve certain universally agreed-upon aspirational goals for people, planet, prosperity, and peace. The SDGs will not be achieved without all global and local actors—governments, the private sector, and civil society—playing their part. Textile Exchange, a global nonprofit, believes that the SDGs offer a unique opportunity to align existing sustainability initiatives through a common framework and accelerate the industry's efforts to address important challenges in the global textile value chain. Future sourcing models will be redefined, to a great extent, by how this sector addresses the themes underlying the SDGs as sourcing countries integrate the SDGs into their national plans and become a priority in those countries.

Representing approximately \$2.5 trillion to \$3 trillion, the apparel industry has the scale, reach, and technical expertise to deliver on target SDGs within the industry's sphere of influence in its interconnected global and local value chains. The industry has a history of contributing to sustainable development, primarily through job creation, but also through other practices such as the industry's support for sustainable agriculture and land management, sustainable fibers and materials, innovative manufacturing practices, standards' adoption and circular business models¹. Textile Exchange believes that existing sustainability initiatives focused on the same themes as the SDGs offer opportunities to meet SDG targets while securing a stable value chain and improving the lives of people globally. Given that two-thirds of workers in the textile industry supply chain are women, companies in the industry also have an unprecedented opportunity to continue to advance gender equality, improve economic livelihoods, and mitigate climate impacts.

Time is of the essence for this Industry to contribute to the SDGs by 2030. This report was commissioned to showcase how companies in the industry are currently integrating the SDGs into their business planning and operations and to offer practical guidance for engagement.

Textile Exchange wishes to thank the companies who generously agreed to participate in the interviews for this report and its benchmarking program. Textile Exchange also wishes to thank all of its Members, KPMG, and each contributor to this report for their commitment to advancing the SDGs and for sharing their knowledge and experience with the industry. Additional resources are available at www.TextileExchange.org/SDGs.

Foreword by KPMG

In September 2015, all United Nations (UN) member states agreed to implement the Sustainable Development Goals (SDGs) by 2030. All sectors—government, private, and civil society—have a role to play in bringing these interrelated goals to life. For companies, the SDGs offer a natural framework to drive business value while impacting a transformative set of sustainability, economic, and social targets. Four in ten of the world’s largest companies today reference the SDGs in their corporate reporting, suggesting that there is growing business interest in aligning with the SDGs since their 2015 launch². Investors are increasingly using the SDGs to better understand environmental, social, and governance (ESG) performance³. Despite this progress, there is not yet an established process, benchmarks, or standard for reporting on the SDGs, even though many organizations are developing tools and approaches to help companies respond. More work is needed if the global community can hope to put an end to global poverty by 2030.

In order to help advance the implementation of the SDGs, KPMG partnered with the UN Global Compact following the launch of the SDGs in 2015 to develop the SDG Industry Matrix, a series of publications that profiled shared value opportunities and aligned these to each SDG target. This report, *Threading the needle: Weaving the Sustainable Development Goals into the textile, retail, and apparel industry*, builds on the SDG matrices to focus in on the unique opportunities for companies in the textile, retail, and apparel sectors to scale positive social, environmental, and economic impact through the SDGs.

Approach and report overview

We are delighted to work with the Textile Exchange to provide a road map for companies seeking to realize the SDGs in their own supply chains. Through desk research of publicly available data and interviews with corporate sustainability leaders and members of the Textile Exchange that have integrated the SDGs into their core business to better understand the challenges, lessons learned, and process, this report:

- Provides representative examples of SDG aligned shared value opportunities specific to the textile, apparel, and retail industry
- Provides resources for starting and enhancing your SDG journey, including guidance on multistakeholder partnerships and country-specific considerations
- Outlines a cluster approach to SDG integration that maps potential programs to defined business needs
- Demonstrates a road map for making the business case for SDG integration.

Key takeaways



The SDGs may offer companies both a business opportunity and a framework to manage operational risks. These goals should not be viewed as another compliance requirement.

The issues highlighted by the SDGs—renewable energy, workforce development, gender equity, and responsible consumption, among others—have a direct impact on corporate profitability, sustainability, and risk environment. The Better Business, Better World report estimates that achieving the SDGs creates \$12 trillion in market opportunities, including economic clusters directly relevant to the textile, retail, and apparel industry: food and agriculture, cities, energy, and materials⁴.

Companies in the sector have the potential to tap into this unprecedented opportunity by adopting a cluster-based approach to the SDGs that leverages the industry's key strengths: developing sustainably sourced and durable products; building responsible, ethical, and engaged supply chains; and tapping into underexploited markets. This report outlines industry-specific examples that can serve as building blocks to help companies.



There are several opportunities to engage with the SDGs. Opportunities range from purely commercial to shared value approaches for companies across the textile, retail, and apparel value chain.

Suppliers, brands, and retailers have unique opportunities to integrate the SDGs into their business planning and operations. For example, suppliers represent the bulk of the environmental and social footprint of a company with a multitiered supply chain. Brands can leverage market penetration, customer relationships, and the ability to shape market trends to drive the industry toward a more sustainable future. Retailers work with a vast network of brands and suppliers to ensure that products they sell meet required quality, variety, and price points. Yet all companies across the value chain seeking to operate in a more responsible way face a set of common social and environmental cross-cutting issues: gender equity; climate action; better livelihoods, equitable employment, human rights, and labor rights. For each of these players, adopting a sustainability strategy with the right mix of foundational considerations, level of effort, and business value can contribute to the implementation of the SDGs across the supply chain.



The SDGs build on a rich history of sustainability efforts by the industry.

Sustainability is not a new issue for the sector, which has in many ways been at the forefront of corporate sustainability. This report demonstrates examples where the sector has contributed to helping transform sustainable agriculture systems towards the adoption of more sustainable fibers and materials. It has formed transformative partnerships such as the Sustainable Apparel Coalition, Textile Exchange, and ZDHC to address critical environmental and social issues, and established effective standards to promote sustainable products. At the same time, challenges such as the ongoing need to address human rights and labor issues, continue across the supply chain. The SDGs can help accelerate and scale existing programs and expand commitments to further secure the value chain while improving the lives of millions of customers and workers worldwide.



Collaborating with the right partners can lead to transformative results.

Partnerships appear to have and will continue to play an important role in achieving development impact within the textile, retail, and apparel industry. For companies grappling with the SDGs, it may be useful to leverage existing initiatives for collaborative action. This report provides a snapshot of leading partnerships, multistakeholder initiatives, and resources directly relevant to companies in the sector. In addition, the report highlights a representative list of key resources to further exemplify SDG opportunities.



The SDGs can help companies engage with governments as they seek to design and implement interventions related to the SDGs.

Governments are increasingly adopting the SDGs as a policy framework for development. However, they cannot do it alone and are looking to the private sector's scale, resources, and technical expertise to plug the estimated \$2.5 trillion development investment gap to meet the SDGs⁵. The country considerations section of this report identifies capacity gaps that developed and developing countries are facing with regard to SDG implementation. As companies seek business models, products, and programs that align with broader business goals, these capacity gaps serve as potential areas for collaboration for companies looking to create real, lasting social and environmental impact in the communities in which they operate while meeting business goals.



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Textile Exchange members

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- World Resources Institute
- Zero Discharge of Hazardous Materials (ZDHC) Foundation



Opportunities for shared value

From the farm to the consumer, the textile, retail, and apparel production industry has an array of economic, environmental, social, and governance impacts. The sector is expected to contribute nearly 26 percent to global carbon emissions by 2050, up from 2 percent in 2015⁶. It uses an estimated five trillion liters of water for dyeing processes a year and sends an estimated 48–144 billion square yards of fabric from factory scraps to the landfill each year⁷. It also employs more than 75 million people globally—mostly women—and indirectly employs billions more⁸. In India, the textile industry has created 1.2 indirect jobs in associated industries for every textile job⁹.

Companies in the sector—suppliers, brands, and retailers—therefore have a significant business opportunity that can be achieved through in the way they source, design, sell, and transport products. According to Nielsen’s 2016 Global Corporate Sustainability Report, sales of consumer goods from brands with a demonstrated commitment to sustainability have grown more than 4 percent globally, while those without grew less than 1 percent¹⁰. Taking a supply chain perspective, KPMG and Textile Exchange have identified potential opportunities for companies to achieve shared value where market potential, societal demands, and policy action converge. The section below showcases tactical examples for companies across the supply chain to rethink the way the industry designs, produces, and distributes their products to collectively move toward shared business and social objectives.

Foundational sustainability and business considerations

Suppliers, brands, and retailers each face specific challenges and opportunities in implementing shared value opportunities and advancing the SDGs. However, all companies across the textile and apparel value chain seeking to operate in a more responsible way face a set of common social and environmental cross-cutting issues – considered foundational for the purposes of this analysis. While this report cannot cover all the sustainability initiatives and challenges in the industry, a more comprehensive list of how existing industry sustainability initiatives can be mapped to the SDGs is available on [TextileExchange.org/SDGs](https://www.textileexchange.org/SDGs). The following section highlights some ways to address these shared issues that include labor rights, gender equality, better livelihoods, and environmental sustainability.

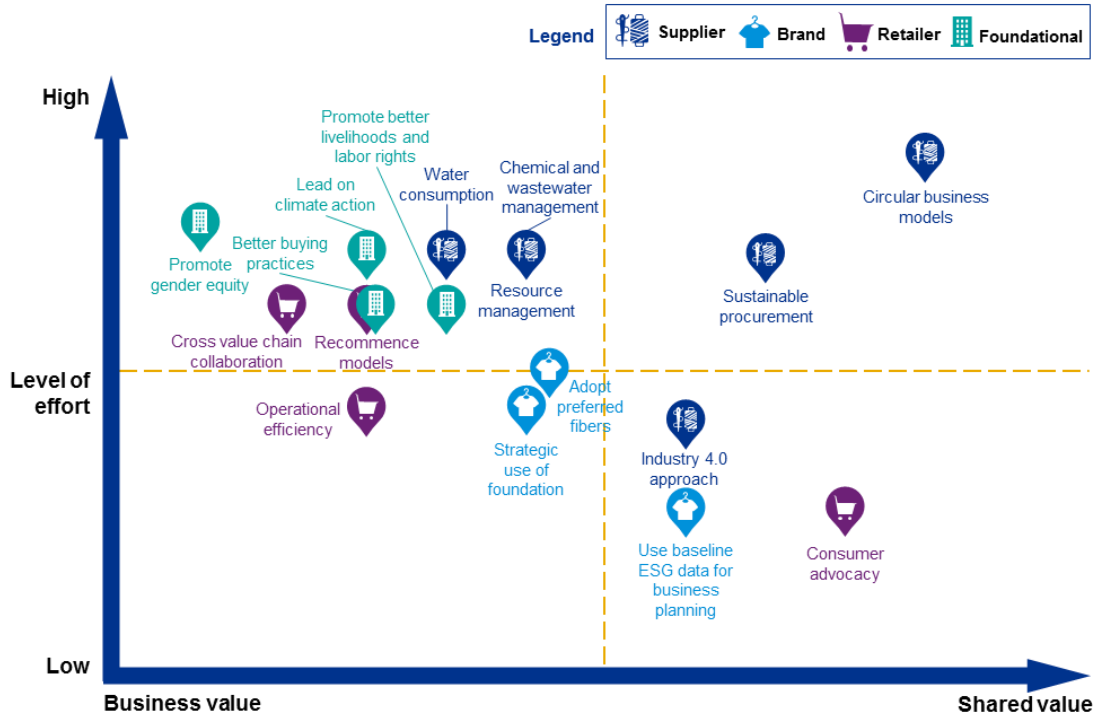
- Empower women through better livelihoods and equitable employment
- Integrate human and labor rights and better livelihoods considerations into business planning
- Implement better buying practices to reduce instances of noncompliance in the supply chain

Empower women through better livelihoods and equitable employment. The textile industry has the potential to lift millions of people and women in particular out of poverty while advancing gender equality. Good quality jobs in the sector can catalyze women’s economic empowerment, offer social protection and measures to balance work and family, and promote an environment free from discrimination and harassment. Research indicates that garment work as a sector employs significant numbers of women and has a positive impact on economic growth. This has been evidenced by delaying marriage, reducing the number of children women have, increasing education, as well as women’s decision-making powers at home and in the community¹¹. However, persistent challenges in the sector remain. Occupational segregation, working hours, health and safety, low pay and the gender wage gap, failure to pay overtime, and underrepresentation of women in supervisory roles are among the challenges facing women^{12,13}. In addition, the introduction of new technologies and increased automation have shown biases to hire more men, resulting in these opportunities going to a larger proportion of male workers and supervisors¹⁴. Apparel companies have invested heavily to support women workers around the world. However, continuous adaptation and implementation of policies are needed to respond to the complex landscape of the sector, and to counter cultural barriers.

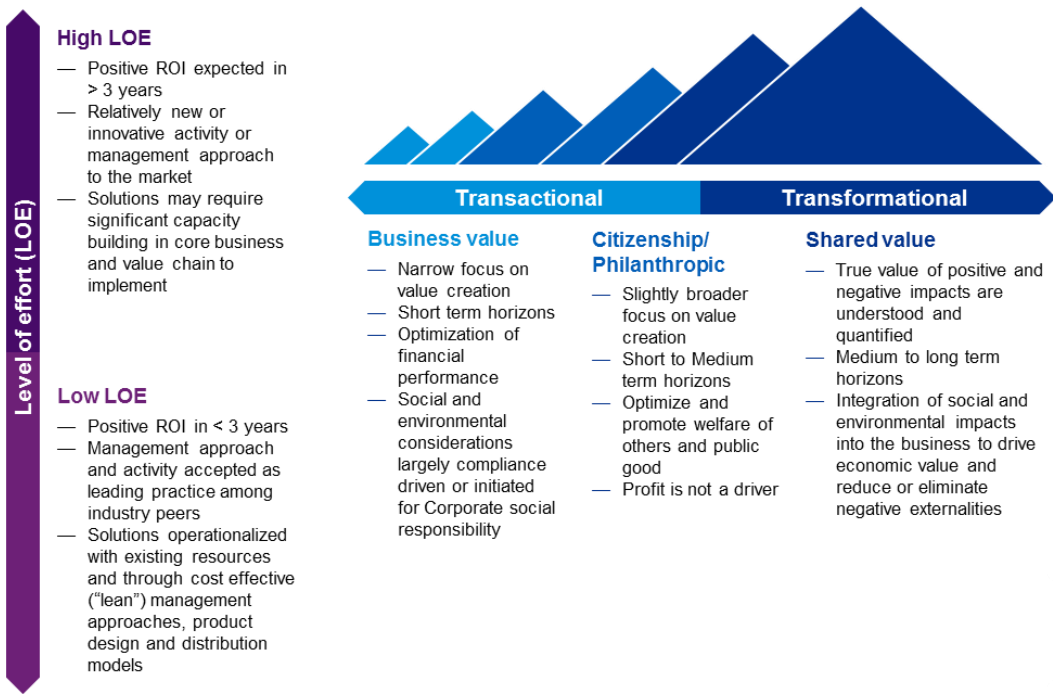
Shared value opportunities & SDG Integration for the textile, retail, and apparel industry



Companies across the value chain have a range of options to impact the SDGs*.



*Shared value opportunities explained



Threading the needle: Weaving the Sustainable Development Goals into the textile, retail, and apparel industry

Integrate human and labor rights and better livelihoods considerations into business planning. Globalization and price competitiveness have contributed to textiles and apparel manufacturing moving to less-developed countries where the industry’s workforce often faces long working hours, low wages, and sometimes insufficient occupational safety. The risks associated with this operating environment have increased the importance of human and labor rights considerations for companies in these markets. Across the value chain, companies are seeking to operate in a responsible way by incorporating human and labor rights considerations into business practices. However, as more countries graduate into middle-income status, low-cost country sourcing becomes a short-term solution to a long-term challenge of value creation. Today’s suppliers, brands, and retailers comply with a myriad of business processes and controls to ensure equitable and safe working environments, including audits, codes of conduct, grievance mechanisms, and risk assessments related to human rights and labor standards. The issues around fair prices for products, raw materials, social protections, and wages—including calculations of fair trade and living wage—may be seen as part of a broader value creation strategy, rather than through a compliance-only lens, which may then be embedded in sourcing and pricing decisions.



Key resources

- Gender Equality Challenge and Company Self-Assessment at GenderEqualityPrinciples.org provides a confidential assessment based on the Calvert Women’s Principles to track progress toward a more equitable workplace.
- The Women’s Empowerment Principles, a joint initiative of UN Global Compact and UN Women, offers guidance on how to empower women in the workplace.
- The International Center for Research on Women (ICRW) identifies the convergence of eight key building blocks, including safety, freedom from violence, and the opportunity to be heard at work in society.



Key resource

The Better Buying initiative provides information about leading purchasing practices meant to change the relationships between multinational brands, suppliers, retailers, and other intermediaries up and down the supply chain.

Implement better buying practices to reduce instances of noncompliance in the supply chain.

The way that brands and retailers make internal decisions and communicate with suppliers’ factories can potentially impact whether products are delivered in an ethical way. Large and unpredictable order requests with tight time lines at the lowest possible cost place significant operational burdens on suppliers, often resulting in poor factory environmental and workplace performance¹⁵. In particular, these changes may impact the ability of a manufacturer to meet established codes of conduct and social

and environmental standards. In addition, suppliers are incentivized to push overtime or use unauthorized subcontractors to meet production targets. The key is going beyond auditing and remediation and towards reviewing internal policies, design, manufacturing, and product development¹⁶. Understanding the processes, redundancies, and breaks in communication with suppliers can foster better financial performance as suppliers and retailers manage a more stable and transparent supply chain.

Suppliers

Suppliers represent the bulk of the environmental and social footprint of a company with a multitiered supply chain. Outside of the consumer usage phase, the sourcing and manufacturing phase of the value chain is the largest component of a textile and apparel product's overall emissions¹⁷. At the same time, suppliers are well placed to advance the SDGs specifically through responsible consumption and production (SDG 12). Suppliers are also a source of product innovation in the textile and apparel value chain, and a growing collaborative trend between brands and suppliers has spurred innovations (SDG 9) that have the potential to accelerate solutions for many sustainability challenges within the industry.

- Optimize resource management and impacts
- Deploy tested management approaches to enable operational efficiencies and innovation in the context of the Fourth Industrial Revolution/Industry 4.0
- Expand criteria for sustainable procurement
- Take advantage of resources that consolidate best practices with regards to chemical and wastewater management and safety
- Evaluate water consumption and wastewater management
- Encourage a shift toward circular business models within your supply chain

Optimize resource management and impacts. Rising consumption patterns are straining global natural resources, contributing to climate change and environmental degradation. Companies in the textile, wood, and food products industries—including suppliers—are responding to this trend by adopting more sustainable sourcing of raw materials: 52 percent of companies in a recent survey of 449 publicly listed companies report using at least one sustainable-sourcing practice. However, 71 percent of these relate to only one or a few input materials, and 60 percent apply to only Tier 1 suppliers¹⁸. It appears that more can be done to improve the sustainability of clothing and textiles across the product life cycle. These methods include procuring lower-impact fibers; designing clothing to increase their useful life, including by reducing washing cycles; expanding the use of biodegradable dyes, threads, and inks; and increasing efficiency in energy and water usage through new technologies and smart management approaches¹⁹.

The targets under SDG 12 represent an opportunity for companies to amplify existing initiatives regarding natural resource, chemical, and waste management through the adoption of sustainable practices and reporting. Companies in the sector are managing these impacts by using a mix of internal company product and supply chain sustainability tools and approaches. Ensuring that a percentage of a company's value chain is covered by a globally recognized standard can help align the company with SDG 12 in a significant way. Several leading industry initiatives – discussed further in the Leading practices and multistakeholder partnerships section of the report - address the themes underlying SDG 12, including bluesign® system (responsible use of resources, clean processes with controlled air and water emissions, safe processes for the workers, and safe products for consumers), Oeko-Tex certifications (raw material certification and sustainable textile production), the Higg Index (measure and score a company or product's sustainability performance product sustainability), zero discharge of hazardous chemicals (ZDHC), and the Textile Exchange's Global Recycling Standard.

Deploy tested management approaches to enable operational efficiencies and innovation in the context of the Fourth Industrial Revolution/Industry 4.0. The World Economic Forum defines the Fourth Industrial Revolution or Industry 4.0 (i4.0) as a range of new technologies that are fusing the physical, digital, and biological spheres. i4.0 refers to evolution of industry towards automation, data management and connectivity, and the digitalization of the value chain. Increasingly, companies in the textile sector are embracing this trend in the form of productivity improvements and adoption of new technologies. However, few have scaled i4.0 sufficiently to drive enterprise value^{20,21}. Tested approaches

such as *Lean Manufacturing* and *Six Sigma* offer opportunities to drive the business process improvement and resource management needed to scale i4.0 within a company.



Key resource

KPMG's *Beyond the Hype* report: Separating ambition from reality in i4.0 provides an overview of what manufacturers can do to secure value and create competitive advantage in today's business environment.

Furthermore, by minimizing waste and incidental labor, producing products in a more flexible and timely manner, and reducing inventory, the *Lean Manufacturing* approach can serve as an interim or complementary step in the transition to more circular business models. It requires companies to integrate issues such as talent management and training, innovation, and productivity into its corporate strategy. Employee engagement is an important step in documenting, standardizing, and automating best practices. Knowledge of

internal and external interdependencies is crucial along with implementation of measurement systems that show the value of i4.0 to the business and its customers. In other cases, employees may need to be upskilled or retrained in order to fulfill more value-adding tasks. The key is to articulate a clear vision for employees on how i4.0 enables change to deliver performance and in doing so build a culture of innovation and performance improvement.

Expand criteria for sustainable procurement. Sustainable procurement is a key element to mitigating the environmental and social impacts associated with the textile, retail, and apparel sector. A recent Ceres report found that 100 percent of companies interviewed have at least some environmental or social criteria in their procurement decision-making, double the companies in 2014. However, only 60 percent of companies integrate both environmental and social criteria²². Suppliers are well positioned to expand sustainable procurement by integrating both criteria into its decision making. For example, cotton farmers face significant costs in order to transition from conventional cotton to organic methods. Suppliers can commit to procurement of organic, "transitional," or "more organic" cotton (also known as "regenerative") to encourage small holders to invest the time and resources to adopt this practice^{23,24}. This approach creates both economic impact in the form of better livelihoods for the farmers and contributes to a more sustainable portfolio of raw materials.

Take advantage of resources that consolidate best practices for chemical and wastewater management and safety. The World Bank estimates that up to 20 percent of global industrial water pollution comes from dyeing and finishing treatment given to fabrics. In addition, approximately 280,000 tons of largely nonbiodegradable dyes are discharged annually either to wastewater treatment plants or directly to the environment²⁵. Given that this segment of the value chain is the largest user of the \$14.5 billion commercial dyes and pigments industry, which is predicted to reach \$42 billion by 2021, suppliers are increasingly required to disclose chemical management activities in different formats with varying deadlines²⁶. Utilizing resources such as ZDHC's wastewater guidelines that can be tailored to the capacity of companies in this segment of the value chain is a potential first step in mitigating negative environmental impact²⁷. ZDHC also offers a Chemical Module that enables companies to use one online system to source safer and replace nonconformant chemicals²⁸.

Evaluate water consumption and wastewater management.

Water is used extensively throughout the textile product life cycle, from growing many of the raw materials, to textile processing and manufacturing operations to washing the finished product. Establishing a baseline water footprint—by capturing fresh or groundwater use and wastewater outputs—is an important first step. This baseline allows companies to develop a strategy to reduce usage and consumption and to create more effective and efficient production processes, particularly in water-scarce or stressed regions such as China, India, United States, Pakistan, and Turkey²⁹. While businesses might be highly water efficient or only use a relatively small amount, if they are operating in a water-stressed environment where rules and allocations are poorly managed, they remain exposed to some level of risk which can affect long-term profitability and investor confidence in the long term. Product consumption in one country can have significant implications for water scarcity in other regions of the world.



Key resource

The CEO Water Mandate mobilizes business leaders, including textile, retail, and apparel companies, to advance water stewardship, sanitation, and the SDGs in partnership with the United Nations, governments, peers, civil society, and others.

Encourage a shift toward circular business models within your supply chain. Less than 1 percent of material used to produce clothing globally is recycled, representing an annual loss of \$1 billion worth of industrial inputs. Adopting circular business models by designing products with their next lives in mind and using inputs recycled from other industries can help capture this lost value. At its best, circular economy models include the reduction in use of virgin materials, elimination of waste, employment opportunities, and the promotion of sustainable consumption habits in customers. In order to achieve this, suppliers are encouraged to seek to “design out” waste and pollution, keep products and materials in use, and implement systems to regenerate natural systems³⁰. However, the transition would require a long-term systems-level change with partnerships across the industry at the core of the approach. Circular business ecosystems create products, solutions, and services based on circular economy principles, and apply these principles in management operations³¹. In the interim, businesses may benefit from increased supply chain transparency and close collaboration across the whole value network.



Brands

Brands serve as the face of the fashion industry, and can leverage market penetration, customer relationships, and the ability to shape market trends to drive the industry toward a more sustainable future. Pressure on material resources will increase in the near future as the urbanizing middle class in emerging economies continues to grow. This exponential demand has a direct impact on the way businesses design, source, manufacture, and distribute products. Opportunity areas include product design, manufacturing, distribution and packaging, and consumer education on sustainability issues.

- Design products for durability, personalization, sustainability, and circularity
- Leverage corporate foundation funding beyond grants and discrete corporate responsibility activities
- Utilize environmental, human, and social capital data as baseline for business decisions
- Adopt a sustainable raw material strategy, including a portfolio of preferred fibers and materials

Design products for durability, personalization, sustainability, and circularity. As buyers of raw materials, fashion brands can leverage their size and balance sheets to design more durable clothing that increase the frequency with which customers use an item and lower the number of items they keep in their closets, and offer personalization to extend the life of a product. For example, upgradable clothing designed to be multipurpose could increase the frequency with which customers use an item and lower the number of items they keep in their closet. New technologies have drastically lowered delays for customers to acquire personalized goods are enabling brands and retailers to rise to the challenge and meet expectations of the modern shopper while gaining an edge over competitors. Brands can more easily bring value to a customer as they receive more targeted experience in the form of access to a wider selection of clothes that fit individual body shapes and preferences. A recent Retail Assist Global Retail survey revealed that 77 percent of consumers expect an offering of products and offers that appeal to their personal tastes³². This model complements other delivery models such as subscription models for curated personalized packages of presorted clothing as consumers seek products tailored to their own style.

Durability helps to drive quality by safeguarding against garment failure, strengthening brand reputation, and reinforcing customer satisfaction and loyalty. Wardrobe staples such as coats, jeans, socks, and underwear represent 64 percent of garments produced globally for men and women, and many customers expect these items to last³³. Extending the life of these products by nine months of active use has been estimated to reduce carbon, water, and waste footprints by 4 percent to 10 percent³⁴. Designing and producing clothes of higher quality and providing access to them via new distribution models would help shift the perception of clothing from being a disposable item to being a durable product. However, quality often comes with an incremental cost; thus, product pricing or other value creation must come into play. Increasing the number of times clothes are worn could be the most powerful way to capture value, reducing pressure on environmental and capital resources and mitigating negative social impacts.



Key resources

- Ellen MacArthur Foundation's Circular Design Guide was developed with input from leading businesses and serves as a toolkit to help embed circular approaches to value creation strategies.
- The Circular Fibers Initiative is a corporate and research initiative that seeks to define a new vision for a new global fibers system, based on the principles of a circular economy.
- WRAP UK's Sustainable Clothing Guide helps brands and retailers to enhance the durability and quality of production.



Key resources

- Foundation Center’s SDG Funders initiative provides a country-by-country breakdown of funding by SDG that can help companies prioritize investments based on operational needs and priorities.

Leverage corporate foundation funding beyond grants and discrete corporate responsibility activities.

As independent entities sharing their parent corporation’s network, employees, and access to markets, foundations can serve as a strategic hub to reach customers, suppliers, retailers, and nonprofit partners. Foundations are most impactful when they bridge the gap between corporate responsibility and core business needs through specialized programs that support capacity building and business training programs for smallholders across their supply chain. For example, foundations can provide seed capital to small and medium enterprises (SMEs) to grow their business and

prepare them for the next stage of private funding, while providing training on best practices to improve the productivity, capacity, logistics, and market efficiency of their operations.³⁵



Key resources

- Kering’s Environmental Profit and Loss approach to natural capital measurement and validation was launched in 2011 as a public resource to promote the adoption across the industry. The approach uses seven steps centered on business planning, defining data requirements, data collection, and E&PL calculations.

Utilize environmental, human, and social capital data as baseline for business decisions.

Incorporating the positive and negative externalities of sourcing, production, and distribution into the company’s operations and profit and loss calculation can improve internal decision making and a company’s impact on the environment, its workers, and its customers. It also helps to understand and validate where a company has the largest impacts are—in Tier 3. Capturing these key impacts also promotes greater transparency and accountability to the company’s shareholders, while addressing increasing investor focus on ESG considerations.

Adopt a sustainable raw material strategy,

including a portfolio of preferred fibers and materials. The industry has turned to an ever-expanding portfolio of alternative fiber and material sources to lower its material consumption impacts, including what Textile Exchange has defined as “Preferred Fibers,” based on their measurably better environmental and social impacts. The environmental and social impact is substantial. Resources such as Textile Exchange’s *Preferred Fibers and Materials Benchmark Insights (PFM) Report* allows companies to track supply and consumption of Preferred Fibers and their impacts, and offers insights into corporate sustainability strategy. Integrating, managing, and measuring a portfolio of Preferred Fibers and materials into mainstream business operations aligns companies to the SDGs by reducing water, energy, GHG emissions, and waste, contributing to sustainable agriculture and farmer livelihoods, and promoting responsible use and reuse of raw materials.



Key resources

- 2017 Textile Exchange PFM Benchmark Insights Report, and Material Snapshots. Adopting a universally recognized standard for fiber and materials, such as Textile Exchange’s standards, offers a measure of transparency and can help to support fiber claims.

Retailers

Retailers work with a vast network of brands and suppliers to ensure that products they sell meet required quality, product mix, and price points. They are well placed to leverage these relationships to uncover productivity and sustainability efficiencies throughout the supply chain. In addition, as retailers respond to the disruption caused by innovations such as e-commerce, they have an opportunity to create opportunities for shared value through more sustainable business models such as “recommerce”, expand modalities for product distribution, and communicate the benefits of more sustainable products to their customers.

- Adopt recommerce models to reach tech savvy, price conscious customers.
- Deploy innovative distribution models to match growing online consumption.
- Facilitate opportunities for precompetitive cross-value chain collaboration.
- Encourage consumer education through labeling, partnerships, and advocacy.

Adopt recommerce models to reach tech savvy, price conscious customers. Recommerce or reverse commerce models have emerged in recent years as a cost effective way of finding value in used and undesired products. The apparel recommerce market was valued at \$20 billion in 2017 and is estimated to reach \$41 billion by 2022, driven by the convergence of mobile connectivity and increase in the number of environmentally conscious and price-sensitive consumers³⁶. Rental, resale, recommerce, or subscription models could incentivize greater production of more durable clothes as the supplier or retailer can capture more value the longer the clothes or textiles last. These models provide customers added value in that they allow access a high-quality product without the associated up-front costs or risks. Subscription-based models offer an alternative to frequently buying new clothes where practical needs change over time. By extending the useful life of products, the recommerce model has the potential to significantly reduce landfill waste, build toward closed loop product cycles, and add value to the price conscious customer. Key challenges particularly in emerging economies, however, is limited selection, lack of transparency, and quality assurance³⁷. Retailers looking to expand their e-commerce footprint are well-poised to take advantage of this growing market.

Deploy innovative distribution models to match growing online consumption.

As consumers continue to buy more products online, retailers must explore alternative distribution and delivery models to meet market demand while meeting sustainability targets. Retailers, for example, are also using urban stores as “fulfillment” locations to complement the “buy online, pick up in store” business model³⁸. Where markets are commercially viable, small-footprint distribution centers or facilities that assemble e-commerce orders can offer same-day delivery or pick up for a limited assortment of products. Subscription-based models offer an alternative to frequently buying new clothes where practical needs change over time. On-demand manufacturing could also reduce brands’ need to discount or discard overproduced items, contributing to mitigation of textile waste and other inputs. Retailers in particular will face increasing external pressure to balance e-commerce growth and sustainability commitments. Managing logistics costs, product quality, and customer interest by leveraging online and mobile technology is key to capturing value in the long term³⁹.



Key resource

The Retail Industry Leadership Association’s (RILA) 2017 Retail Sustainability Leadership Model is a tool for retail sustainability executives to identify the management practices that will drive improved corporate and environmental performance.

Facilitate opportunities for precompetitive cross-value chain collaboration. Cost optimization goals, tight profit margins, and significant up-front capital investment can make investment in innovative technologies to reduce resource use prohibitive for many companies in the sector. Yet the aggregated market value of the top 100 fashion brands is reported to be over \$1 trillion⁴⁰. These companies typically have hundreds of suppliers across multiple countries. Retailers, in partnership with brands, suppliers, and

impact investors, can leverage their scale to invest in research and development measures that improve resource use on a large scale through long-term commitments. This collaboration can help overcome the constraints faced by suppliers around lack of knowledge, financial constraints, and low awareness of the alternatives.

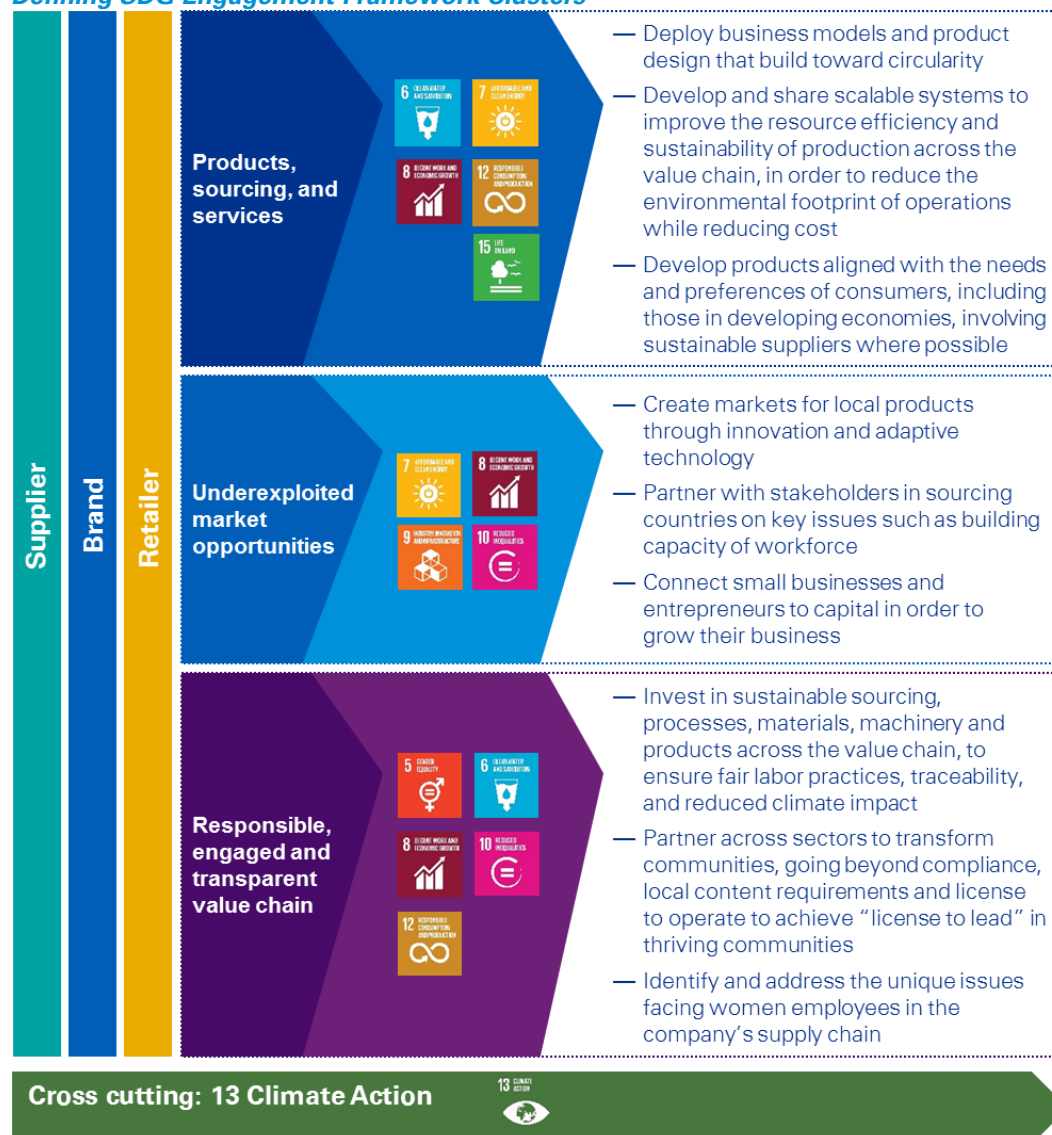
Encourage consumer education through labeling, partnerships, and advocacy. Fashion brands are well positioned to reach and influence consumer behavior, for example, through better labeling of care and washing instructions to promote reduced GHG emissions and energy use by the consumer. In 2016, luxury brands alone were reported to have spent over \$1 billion on digital advertisements⁴¹. However, collaborative action is needed across the industry to mainstream durability. Garment producers, washing machine manufacturers, detergent manufacturers, and waste service providers each have a role to play in reducing the release of microfibers⁴². Introducing universal labeling that standardizes quality assurance is one way to help consumers recognize the value captured by buying more durable goods. Developing common standards through agreements between brands, suppliers, and retailers is key to building trust with customers and their familiarity with sustainability issues, as well as the safety of their products. Governments are also increasingly regulating the impact of certain fibers and textile waste. Brands and retailers have an opportunity to innovate as a response and create a competitive advantage. For example, retailers that sell their own brands in-store can further educate the consumer by dedicating store space to sustainable products, enhancing packaging designs to be more sustainable, and driving sustainability standards in owned-brand product design and manufacturing.



SDG engagement framework

The textile, retail, and apparel sector have the potential to contribute to the SDGs, but are strategically positioned to impact on a few key goals. Based on research and interviews conducted with a range of suppliers, retailers, and brands, KPMG identified an “SDG engagement framework” comprised of three impact opportunity clusters across eight SDGs where the industry can have the most direct impact. Climate action is a cross cutting issue across these clusters. The SDG engagement framework provides representative case studies where the SDGs are being implemented by companies. These examples are meant to demonstrate the first steps that stakeholders can take to integrate the SDGs into their core business and value chain. However, to ensure ownership, transparency, and accountability, these clusters need to be underpinned by action plans, targets, and key performance indicators integrated into corporate performance objectives starting at the management level and cascading down to the rest of the employees. Every company is encouraged to conduct its own materiality assessment for all the SDG themes and every company is encouraged to consider all the positive and negative linkages and tradeoffs of taking action toward one SDG target over other SDGs. For the purposes of this report, these SDGs were identified as important themes for the industry and its sphere of influence.

Defining SDG Engagement Framework Clusters



SDG Readiness Snapshot for the Textile, Retail and Apparel industry

Companies have the opportunity to directly impact all 17 SDGs. However, limitations in each economy present challenges to reaching the SDGs and will challenge governments and private firms to seek sustainable solutions. The **SDG Readiness Snapshot** for the Textile, Retail and Apparel industry provides an overview of the capacity of countries to implement these key SDGs in order to inform a company's internal planning discussions for programs and partnerships aligned to country and business needs.

KPMG reviewed the SDGs at the target and indicator levels to identify which goals companies can directly impact through commercial, shared value and corporate responsibility activities and strategies. As a result, we identified eight SDGs priorities directly relevant to a company's operations, business and supply chain. Climate change is recognized as a cross cutting issue, contributing to both the environmental and social impacts across the supply chain.

We then mapped the **2017 Change Readiness Index (CRI)** to the **2017 SDG Index and Dashboards Report** developed by the Sustainable Development Solutions Network to measure the capacity of select countries to implement these eight SDGs⁴³. The CRI captures inputs a country can leverage while the SDG Index and Dashboards report captures a country's progress against the SDGs. **Taken together, the data provides a snapshot of the implementation gap in a country, and potential areas for private sector action¹.** Detailed country analysis is included in the Appendix.

The CRI assesses the ability of a country to anticipate, prepare for, and manage change. Change can include positive developments such as foreign direct investments or shocks such as natural disasters. The CRI uses primary and secondary data to capture inputs that indicate a country's capacity across the government, enterprise, and people and civil society pillars. As such, the indicators represent factors such as enterprise sustainability, inclusiveness of growth, land rights and others that can directly influence change readiness. Where countries lag behind, achieving the SDG targets will be more difficult without strong partnerships and concerted efforts. China is used as a baseline given that it is a leading textile producer and history of successfully implementing the Millennium Development Goals. The resulting spider graph provides an overview of the capacity gaps select countries currently have compared with the highest performers in the CRI in their income group. Where the gaps are large, these are areas for improvement that may require broader government and private sector support.

To learn more about the CRI and delve deeper into the data, visit kpmg.com/changereadiness where you can:

- Use an interactive comparison tool to contrast different countries, regions and income groups
- View in-depth profiles for each of the 136 countries covered in the 2017 CRI
- Customize the features of a "best in class countries" to further tailor the benchmark for SDG readiness
- Compare CRI scores across years for different regions and income groups
- Create tailored CRI reports that you can export in a variety of formats; and much more

¹ SDG 10 was not included in the analysis because the SDG Index and Dashboards Report and the CRI used the same secondary data used.



SDG 5: Achieve gender equality and empower women and girls

Relevant Cluster	Integrated into core business	Case study spotlight
<p>Responsible, engaged and transparent value chain</p>	<ul style="list-style-type: none"> — Identify and address the unique needs and issues facing women employees within the company and supply chain such as child and maternal care, management and technical training, and equal pay — Increase employment opportunities for women, including representation in management — Align wage incentives at the supplier level to discourage employee maltreatment — Develop confidential mechanisms that allow workers in the supply chain to report unfair treatment based on gender — Educate women how to leverage technology and the many advantages it can have in automating their trade — Educate factory managers and workers to identify signs of domestic violence — Apply a gender lens to investments in Sustainable Agriculture, which can advance a number of SDGs 	<ul style="list-style-type: none"> — Gap Inc.'s Personal Advancement and Career Enhancement (P.A.C.E). Gap Inc. in partnership with CARE launched the P.A.C.E. program in 2007 as a way to empower women staff and managers employed in Gap Inc. factories in Bangladesh, Cambodia, China, Indonesia, and Myanmar among others to gain the skills and confidence needed to advance at work and life. Since then, over 91,000 people in 12 countries have participated, and Gap Inc. is committed to reaching one million women and girls by the end of 2020. In particular, the 65-hour training module focuses on communication, problem solving and decision making, time and stress management, water, sanitation and hygiene, execution excellence, general and reproductive health, financial and legal literacy and social entitlements, financial management, and health and well-being with the aim of creating productivity in the workplace⁴⁴. For Gap Inc., this creates a positive impact in the communities they operate and strengthens relationships with strategic vendors while positively empowering women in their professional and personal lives. — VF Corp. has made worker well-being a priority of its Made for Change strategy, including a goal to measurably improve the lives of 2 million workers and others within their communities by 2030⁴⁵. Their programs target focus on three areas: fostering a safe and respectful workplace; improving the lives of workers and others in their communities; and, ensuring workers' universal human rights are respected and advanced. — Building on the work already developed within the framework of its Strategic Plan for a Stable and Sustainable Supply Chain 2014-2018, in 2017, Inditex approved a Women Empowerment Strategy in the Supply Chain comprised of three main pillars: health, protection and empowerment. — An independent assessment of Better Work factories by Tufts University found that a factory's wage structure is a significant factor in determining whether and to what degree workers experience verbal abuse at work. Verbal abuse was found to most likely to occur when wage incentives are misaligned among workers and supervisors, particularly where workers have low-powered incentives (e.g., hourly wage as opposed to the number of pieces produced) and supervisors have high-powered incentives (productivity of their line). Findings from Better Work Jordan shows that incidences of verbal abuse decrease as workers are motivated by monetary incentives rather than by shouting and other abusive practices^{46, 47}. — Tools: The Gender Equality Principles and the Women's Empowerment Principles offer practical standards that companies in the sector can integrate and measure against on a regular basis. Based on the Calvert Women's Principles, the Principles recommend standards in seven key areas including employment and compensation; work-life balance and career development, health and safety, and management and governance, among others.



SDG 6: Ensure availability and sustainable management of water and sanitation for all

Relevant Cluster(s)	Integrated into core business	Case study spotlight
<p>Products, sourcing, and services</p>	<ul style="list-style-type: none"> — Adopt leading water stewardship standards to evaluate and reduce resource consumption in materials in the supply chain and assist in managing chemicals, dyes, and finishes — Undertake a life cycle assessment of water use in products and track impact of water efficiency on production costs — Partner with governments to design wastewater treatment facilities to reduce effluent discharge — Deploy a context-based approach to water management and target setting — Utilize shared-use water infrastructure where possible — Provide access to water, sanitation and hygiene in factories and nearby communities 	<ul style="list-style-type: none"> — C&A in Bangladesh: Partnering with Partnership for Cleaner Textiles (PaCT)⁴⁸. Bangladesh has one of the highest population densities in the world, with a population of 160 million living within 57,000 square miles. Of those 160 million people, 13 percent lack access to safe drinking water and 39 percent lack improved sanitation, according to Water.org. It is also one of C&A’s largest production countries, accounting for 35 percent of its blue water footprint as well as 23 percent of its carbon emissions, the highest of all of C&A’s sourcing countries. The country’s low-lying position on a river delta makes it vulnerable to some of the most extreme effects of climate change. C&A, in partnership with PaCT, supported training, on-site support, and access to funding to introduce cleaner production methods to over 100 factories and mills in Bangladesh, including 52 that supply C&A. In 2016, PaCT’s work was reported to have saved 18.4 billion liters of water and avoided 15.9 billion liters of wastewater. — Target is reducing water in its own brand products and its stores. Owned brand products form a significant part of retailers’ product mix. Addressing the environmental impacts of these products can bring tremendous business and social value as efficiencies are created throughout the enterprise. Target deployed WWF International’s (WWF) water risk assessment to review water use reduction efforts across the manufacturing supply chain, stores, and distribution facilities. It committed to sourcing 100 percent sustainable cotton for its owned brand and exclusive national brand products. Target also is working with its manufacturers to improve water efficiency in textile dyeing and finishing factories located in priority watersheds by 15 percent, designing 100 percent of garment-washed owned-brand apparel through water-saving design principles, and complied with the ZDHC Progressive level wastewater standard. Finally, across its stores, distribution centers, and headquarters locations, Target has committed to reducing water usage in operations by 15 percent from a 2010 baseline⁴⁹. — PVH has partnered with WWF to support water stewardship in key sourcing communities such as Ethiopia’s Lake Hawassa, where a PVH joint venture is an anchor tenant in the Hawassa Industrial Park⁵⁰. In particular, PVH is working with WWF to conserve freshwater resources in by identifying water risks and leading conservation activities for local communities. After assessing potential water impacts and identifying that fabric production operations would impact groundwater around the park and that measures should be taken to prevent contamination of water supplies, PVH partnered with the



SDG 6: Ensure availability and sustainable management of water and sanitation for all

		<p>Ethiopian government and other park tenants to build a zero liquid discharge effluent treatment facility that recycles wastewater produced in the park⁵¹.</p> <ul style="list-style-type: none"> — The ZDHC initiative seeks to advance towards zero discharge of hazardous chemicals in the textile, leather, and footwear value chain to improve environment and individual well-being. ZDHC includes a collaboration of 24 signatory brands, 53 value chain affiliates, and 15 associates. Bluesign works at each step of the textile supply chain to approve chemicals, processes, materials, and products that are ESG safe. Its Input Stream Management provides an efficient solution for chemical suppliers, textile and accessories manufacturers, as well as fashion brands. See “Best practices and multistakeholder partnerships” for additional information on Bluesign and ZDHC, respectively.
<p>Responsible, engaged, and transparent value chain</p>	<ul style="list-style-type: none"> — Develop an enterprise-wide water strategy based on a true assessment of current business practices to improve internal decision making — Undertake an assessment of sanitation across facilities such as the water sanitation and hygiene WASH4Work initiative — Understand water scarcity risk in the countries in which suppliers and partner brands operate — Deploy instant product feedback loops to adjust product design in a nimble and transparent manner 	<ul style="list-style-type: none"> — Conduct a true value assessment of business operations. Since 2011, Puma has published an environmental profit and loss account, which includes a price tag on its external and internal environmental impacts every year. The assessment covers air pollution, carbon emissions, land use, wastewater use, and water pollution. In 2017, Puma optimized this assessment process and identified EUR 457 million in environmental impacts the previous year. Through this process, Puma discovered that major environmental impacts could be traced to their supply chain and not through its own operations where Puma has set targets for water usage in offices, stores, and warehouses. Instead, land use in the Tier 4 level of its supply chain, where raw materials such as cotton and leather were produced, accounted for 21 percent of total impact. As a result, Puma adjusted its environmental targets by requiring that primary materials come from sustainable sources and currently works with partners such as Leather Working Group and Better Cotton Initiative⁵². — Internal water mapping by C&A found that an estimated 70 percent of its total water use of 1.5 billion metric tons in 2016 was spent on raw materials. Design, consumer use, retail operations, garment manufacture, and material processing collectively represented 21 percent. This mapping helped C&A identify sustainable agriculture, particularly the use of better cotton production systems, including organic cotton, as a key priority⁵³. — Sri Lankan apparel and fabric manufacturing conglomerate MAS Holdings has set new goals to help directly support biodiversity in the country by creating habitats in 100 times the area it operates⁵⁴. The company reportedly plans to expand projects to 1,000 acres with an aim of reaching 25,000 acres by 2025.

SDG 6: Ensure availability and sustainable management of water and sanitation for all

- **VF Corp has developed CHEM IQ**, a chemical management program, to test for substances of concern in the chemicals used in their supply chain, so that they can eliminate their use⁵⁵.
- The **WASH4Work initiative** was launched on World Water Day in 2016 by public and private stakeholders to mobilize companies to improve access to WASH in the workplace, communities where workers live, and across supply chains. The initiative seeks to align and scale existing efforts to improve health outcomes, contribute to the economy and business growth, and promote the human right to WASH. Specifically, WASH4Work focuses on evidence gathering and solution creation, advocacy and enabling of business action⁵⁶.





SDG 7: Ensure access to affordable, reliable sustainable and modern energy for all

Relevant Cluster(s)	Integrated into core business	Case study spotlight
<p>Underexploited market opportunities</p>	<ul style="list-style-type: none"> — Access energy services through shared infrastructure, potentially addressing energy poverty at a regional level — Grow use of alternative (e.g., renewable) and technologies in the energy mix — Increase energy efficiency in operation and production 	<ul style="list-style-type: none"> — In 2005, PrAna announced its Natural Power Initiative aimed at providing renewable wind energy to 100 of its retailers across the United States, earning them a Green Power Leadership Award from the U.S. Environmental Protection Agency. Since then, the company has purchased renewable energy credits to offset the energy it uses in the office, its stores, and all of its employees’ and ambassadors’ homes⁵⁷. — IKEA has invested EUR 1.7 billion in renewable energy since 2009, by committing to owning and operating 416 off-site wind turbines and installing around 750,000 solar panels on IKEA buildings⁵⁸. In addition, it has also offered affordable solar panels and battery storage as part of a new combined home solar system. — Nike signed a second wind contract which enables the company to source 100 percent renewable energy across its owned or operated facilities in North America⁵⁹. The virtual power purchase agreement commits Nike to purchase 86 MW over the life of the agreement, equivalent to powering more than 400,000 average American households with carbon-free energy or to the emissions reduction of taking nearly 800,000 vehicles off the road for one year. — As part of its commitment to supporting communities, Target has a long-term interest in designing and operating energy-efficient and sustainable buildings. Target’s goal is to support renewable energy by increasing the number of buildings with rooftop solar panels to 500 by 2020 and working toward a goal to be 100 percent renewable overall. Target stores that use solar power generate between 15 percent and 30 percent of their energy from solar, easing the burden on local power grids. Target also has the option to sell the renewable energy certificates for that energy and purchase a portion of wind energy generated by the Stephens Ranch project in Texas and, beginning in 2019, the Solomon Forks wind project in Kansas once construction is complete. These projects combined will offset approximately 13 percent of Target’s total energy usage with clean wind energy⁶⁰. — Indian manufacturer GHCL has established a cogeneration plant at Sutrapada that has the capacity of producing 38.7 MW of power. In addition, GHCL uses a 25.2 MW wind energy power source in Tamil Nadu for captive use of its Spinning unit and 2.1 MW of wind energy in Vapi for its Home Textiles unit⁶¹.



SDG 7: Ensure access to affordable, reliable sustainable and modern energy for all

		<ul style="list-style-type: none"> — The RE100 Initiative, led by the Climate Group in partnership with CDP, helps companies source 100% renewable electricity⁶². RE100 shares compelling business cases for renewables, such as greater control over energy costs, increased competitiveness, and delivery on emissions goals. It also showcases business action on renewables and encourage supplier engagement, while working to address barriers that will enable many more companies to reap the benefits of going 100% renewable. As of the date of this publication, 138 companies have made a commitment to go '100% renewable,' including H&M, Ikea, VF Corp and Walmart.
<p>Responsible, engaged, and transparent value chain</p>	<ul style="list-style-type: none"> — Make clear commitments to energy efficiency on which progress is tracked annually — Work with suppliers to tailor and scale energy efficiency programs in ways that make business sense for the size of their organization 	<ul style="list-style-type: none"> — Walmart's Gigaton project invites Walmart suppliers to make commitments to reduce GHG emissions from their operations and supply chains. The initiative provides suppliers with an emissions reduction toolkit to encourage the elimination of one gigaton of emissions in areas such as manufacturing, materials, and use of products by 2030. This science-based target is estimated to be the equivalent of taking over 211 million passenger vehicles off U.S. roads and highways for a year⁶³.



SDG 8: Promote sustained, inclusive, and sustainable economic growth; full and productive employment; and decent work for all

Relevant Cluster(s)	Integrated into core business	Case study spotlight
<p>Products, sourcing, and services</p>	<ul style="list-style-type: none"> — Protect labor rights and promote safe and secure working environments through policies, compliance with local laws, codes of conduct, regular audits and supply chain assessments, auditor training, and capacity building — Ensure that factories and suppliers participate in partnerships and programs that seek to improve working conditions and respect for workers while boosting the competitiveness of the apparel sector — Support harmonization of certification systems to reduce burden on and cost to factories 	<ul style="list-style-type: none"> — Fair Trade certified program. Patagonia reports that it has more Fair Trade certified styles than any other apparel brand and through its Fair Trade certified program the company has made a positive impact on over 42,000 workers in nine countries in its supply chain since the program’s inception in 2014⁶⁴. Patagonia pays a premium on each product made at a Fair Trade certified factory that goes directly into a fund for the workers. Then the workers collectively decide how they want to use that money. The added premiums from this program directly and indirectly raise wages and can help move workers’ wages closer to a living wage. Premiums have been used as a direct bonus to supplement workers’ income, to build a child care center, to provide educational grants for workers’ children, and to purchase major household appliances such as stoves, washing machines and computers. The program also has an added benefit of promoting dialogue between workers and management and empowers workers to make decisions about what matters to them and their communities. — Better working conditions in factories lead to higher productivity. An independent assessment of Better Work’s programs in Vietnam indicates that better working conditions are linked to higher levels of worker productivity. Where conditions are more equitable and point to a strong working environment, workers reach daily production targets nearly 40 minutes faster than workers in factories with worse conditions. Workers with the same education, training, and experience that were concerned by verbal abuse required almost one additional hour per day to meet daily production targets⁶⁵. Basic skills training also reduced the time workers need to reach a target. Workers in Vietnam who report taking part in basic skills training were found to reach production targets on average nearly 15 minutes faster than those who did not participate. Additionally, training supervisors also has a measurable effect on productivity as well. Better Work’s Supervisory Skills training program increased productivity of lines supervised by trained supervisors, particularly female supervisors, as it reduced the time needed to reach production targets by 22 percent⁶⁶.



SDG 8: Promote sustained, inclusive, and sustainable economic growth; full and productive employment; and decent work for all

<p>Underexploited market opportunities</p>	<ul style="list-style-type: none"> — Respond to the market demand especially from socially conscious consumers — Promote policies that support productive activities, job creation, innovation, and creativity — Source employment and procurement locally, including supplier development 	<ul style="list-style-type: none"> — A number of companies interviewed and within the industry have launched special collections in response to a demand from socially responsible consumers, including H&M’s Conscious Collection; C&A’s Cradle to Cradle Certified™ t-shirt and denim jeans; Eileen Fisher’ responsible wool collection using Textile Exchange’s Responsible Wool Standard^{67,68,69,70}. — Esquel Group sources employment locally and in countries where there are increasing employee shortages such as China and they are redesigning the factory toward automation to attract employees from a more highly skilled and educated local employee pool of candidates⁷¹. — Shift Project recently released a new report of 15 case studies of how companies and multi-stakeholder initiatives are aiming to address human rights impacts, including case studies from H&M, Egedeniz Textiles, Penguin Apparel, and Inditex around topics of living wage, forced labor, and gender equality⁷².
<p>Responsible, engaged, and transparent value chain</p>	<ul style="list-style-type: none"> — Help ensure that factories and suppliers participate in programs such as Better Work, an ILO and IFC-led program that seeks to improve working conditions and respect for workers while boosting the competitiveness of the apparel sector — Offer incentives for employees and managers to participate in professional and soft skills training at the supplier level — Partner with local organizations that are attuned to the cultural sensitivities 	<ul style="list-style-type: none"> — Social certification systems exist throughout the apparel, retail, and textile value chains and ongoing work at harmonization and auditor training continue. The nine brands interviewed for this report have adopted internal or third-party auditing and certification frameworks to ensure their supply chains comply with a code of conduct and local laws. Examples of such programs are Ethical Trading Initiative, Fair Labor Association, Fair Wear Foundation, Social Accountability International, World Fair Trade Organization, and Worldwide Accredited Production System. Beyond these certification programs, companies are increasingly making direct investments in capacity building and training and continuous improvement. — Inditex’s Right to Wear initiative is a shared value approach to the business that integrates sustainability and transparency in all aspects of the supply chain⁷³. This includes how products are designed and distributed, how materials are sourced and suppliers are managed; the health and safety conditions of employees and suppliers’ employees; energy and water use in stores, facilities and processes; end of life considerations; and the how the company responds to the evolving needs of customers, employees and shareholders. — Several companies interviewed for this report have adopted strategies to achieve a living wage in their supply chains. One of the main objectives of the ACT initiative is to achieve living wages in the textile industry. In 2017, Inditex worked closely with the brands that form part of ACT (Action, Collaboration, Transformation) and with a



SDG 8: Promote sustained, inclusive, and sustainable economic growth; full and productive employment; and decent work for all

		<p>trade union to develop a shared tool for evaluating purchasing practices and establishing best practices⁷⁴. Over 800 members of purchasing teams in companies participated in the working group by contributing anonymous and confidential implementation of a self-assessment program to analyze purchasing. This resulted in analysis that made it possible to minimize their potential negative impacts on the payment of living wages.</p> <ul style="list-style-type: none">— C&A established a capacity building management programs with learning modules targeting worker communication, HR, fire and building safety, environment, working hours, wages, and benefits. Each module includes a one- or two-day workshop, home assignments, and a joint on-site visit by the C&A Development Officer and responsible supplier representative. The managers involved in the program report into senior factory management and lead social and environmental compliance or sustainability programs in the factories⁷⁵.— Egedeniz Textile, the first certified organic textile company in Turkey, launched a producer-buyer partnership driven living wage project in 2016. To do so, Egedeniz worked with the Fair Wear Foundation to conduct a cost of living survey with workers across three wage groups. It then worked with buyer Mini Rodini on the survey findings to calculate an initial premium of EUR .18 per garment that resulted in an average 14% wage increase on the lowest monthly salary among the three wage groups⁷⁶.
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SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation

Relevant Cluster(s)	Integrated into core business	Case study spotlight
<p>Underexploited market opportunities</p>	<ul style="list-style-type: none"> — Increase the share of durable, sustainable clothing in your product mix — Invest in innovative circular economy technologies, models, and approaches that promote energy efficiency — Provide grants to entrepreneurs as seed funding for innovative ideas designed to reduce climate and social impact 	<ul style="list-style-type: none"> — Source raw inputs such as wood and pulp from certified forests: Lenzing, which specializes in biodegradable textile and nonwovens cellulose fibers, sources wood and pulp to produce fibers. Given that the fiber industry accounts for 2 percent to 4 percent of total pulp production or 0.5 percent of global wood use, ensuring that wood pulp is sourced in a sustainable way is key for the long-term sustainability of Lenzing’s business. Lenzing has thus committed to protecting existing ancient and endangered forests through its wood and pulp policy, certification, and forest conservation solutions, and that inputs are certified by the Forest Stewardship Council. It has committed to sourcing 75 percent of pulp requirements by backward integration through an increase in the Lenzing Group’s own pulp production volumes. In addition, by 2020 Lenzing plans to generate 50 percent of its revenue with eco-friendly specialty fibers⁷⁷. Regular risk assessments, audits, and on-site visits from independent third parties ensure compliance with these policies. — Kering has co-invested in UK-based start-up Worn Again, which is pioneering a textile-to-textile chemical recycling technology that can separate and extract polyester and cotton from old clothing and textiles. By converting recycled raw materials into yarn, developing fabric and creating garments, Worn Again’s potential new products can demonstrate the viability of commercial circular technology and serve as a solution to replace the use of polyester derived from non-renewable resources such as palm oil⁷⁸. — Invest in PET recycling technology. Research from GreenBlue suggests that establishing “PET watersheds” within a geographical region would allow chemical recyclers to process a broad range of feedstocks such as preconsumer or postconsumer contract textile, apparel, and carpet face fiber as well as solid-state postconsumer PET packaging from materials recovery facilities that can be aggregated to provide a recycler with sufficient feedstock material⁷⁹. These technologies have the potential to operate more efficiently as a distributed network of small-scale facilities near sources of PET feedstock. Some of the technologies can be colocated with PET resin manufacturers, and other recyclers have created partnerships with bottle and fiber manufacturers looking for high-quality recycled PET resin. Both of these strategies can help support a market for recycled outputs from chemical recycling facilities. — H&M’s Global Change Award is an innovation challenge established by the H&M Foundation that identifies five



SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation

		<p>winning teams every year that share a financial grant of EUR 1 million to advance circular business models. In addition, award winners are eligible to a one-year Innovation Accelerator Program that includes coaching required to take ideas to market.</p> <ul style="list-style-type: none">— The Levi Strauss & Co. Collaboratory program selects 12 socially and environmentally responsible entrepreneurs in the apparel industry to collaborate on sustainability solutions. Now in its second class of 12 fellows, the program brings together leading thinkers and doers to cocreate solutions to reduce the apparel industry’s climate impact. The 12 fellows will submit ideas for the chance to receive \$50,000 in grant funding⁸⁰.— Patagonia’s Tin Shed Ventures invests in responsible startups with innovations that enable Patagonia to build the best product while causing the least amount of environmental harm. The Tin Shed portfolio includes a wide range of startups, like Bureo, Tersus Solutions, NuMat Technologies, and Revolution Fibres. Tin Shed Ventures has invested in more than a dozen startups in three continents.⁸¹.— Fashion for Good is a global platform that promotes innovation in the textile industry in the context of “Five Goods.” These include good materials, economy, energy, water, and lives. Fashion for Good is funded by an initial grant from companies in the sector works with a Silicon-valley based technology accelerator, to identify and scale start-up innovators.
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SDG 10: Reduced inequality within and among countries

Relevant Cluster(s)	Integrated into core business	Case study spotlight
<p>Underexploited market opportunities</p>	<ul style="list-style-type: none"> — Leverage existing foundation or philanthropic initiatives to provide seed capital for entrepreneurs or nonprofits leading innovative work in the sector — Adopt policies, fiscal, wage, and social protection policies including tax payment transparency — Set expectations for communications with local businesses and communities — Overcome inequality through education and training of employees and individuals in their communities 	<ul style="list-style-type: none"> — Improving working conditions and management capabilities of sewing shops in São Paulo Program. In many cities, there is a growing number of migrant workers—including from Africa and other Latin American countries—and issues around labor exploitation and lack of occupational health and safety persist. The C&A Foundation has partnered with the ILO, Brazilian Association of Textile Retail (ABVTEX), and the Brazilian Association of Textile Industry (Abit) to promote decent work in São Paulo, Brazil, where many of these issues converge. The program operates on the basis that government, private sector, and civil society need to work in tandem to address issues in the sector. It works on several fronts to advance SDG 10—training sewing shop owners and SMEs on fair business practices; educating workers on their rights; and building the capacity of federal, state, and local government institutions to implement policies to improve working conditions in sewing shops.
<p>Responsible, engaged, and transparent value chain</p>	<ul style="list-style-type: none"> — Empower employees through professional training in the supply chain as a way of boosting productivity, protecting brand and ensuring quality of materials procured — Assess and understand social and environmental supply chain risks in the countries of operation 	<ul style="list-style-type: none"> — Companies may deploy country-specific approaches to address hot risks in sourcing countries; for example, labor rights and working conditions in countries are monitored more closely based on historical issues and risk profile⁸². This approach prioritizes resources on suppliers most prone to breaking labor and human rights standards.

Relevant Cluster(s)	Integrated into core business	Case study spotlight
<p>Products, sourcing, and services</p>	<ul style="list-style-type: none"> — Improve resource efficiency around products and services with the aim to decouple economic growth from environmental degradation — Integrate product stewardship — Responsible waste and chemicals management — Units of more certified preferred fibers as a share of total production — Offer warranties to repair or replace products or product components that fail, strengthening customer loyalty and creating a feedback loop for products; data can be used by brands to make improvements in design and manufacturing to increase durability — Create common quality labeling to allow customers to universally value their purchases, e.g., number of washes an item can withstand, number of “wears” 	<ul style="list-style-type: none"> — All of the companies interviewed in this report have made commitments to adoption of more sustainable fibers and materials. For example, Target has set a goal to source 100 percent sustainable cotton by 2022 for owned and exclusive national brands in apparel, home, and essentials, and continue to implement a new cotton policy. In the latest 2017 Textile Exchange PFM Benchmark Insights Report, which combines data from 97 companies in 19 countries, Textile Exchange calculated an estimated savings of 288.5 billion liters of water based on 2016 reported consumption of preferred cotton alone showcasing linkages to Sustainable Fiber under SDG 2 and water stewardship under SDG 6. — Companies are offering returns, replacements, or mending if a product does not perform to satisfaction and repairs the product for a fee for general wear and tear⁸³. Patagonia’s Worn Wear initiative includes a trade-in program, shopping used Patagonia gear online (wornwear.com), recycling, and repairs through DIY workshops and tours. Repairing and reusing requires fewer resources than the energy and chemicals required to manufacture a new garment or recycle a garment. Eileen Fisher’s RENEW is a take-back program that allows customers to return used clothing, which are recycled into new pieces. VF’s Clothes the Loop program allows consumers to drop off unwanted clothing and footwear at The North Face retail and outlet stores regardless of brand and condition. Items collected are sent to a recycling center where they are sorted based on 300 categories and repurposed for reuse to extend their life. To date, over 30,000 kg of clothing and footwear has been collected.⁸⁴ These results demonstrate the potential impact of targeting market segments that place a premium on quality and durability. — Lenzing’s Refibra fiber is the first commercially produced cellulose fiber featuring recycled material cotton scraps and wood. The fiber is used by brands such as Inditex, Reformation, and Eileen Fisher, among others, and part of Lenzing’s broader effort to reduce net impact on natural resources⁸⁵. — VF Corporation has launched a rental and recommerce business across its brands as part of a broader effort to

extend the life and value proposition of its products and materials. In addition, it aims to increase the use of recycled content in its products and tackling sustainability of farming and ranching practices⁸⁶.

- **Reducing packaging. Target** sought to enhance at least 50 of its owned brand packages to be more sustainable by 2016, a goal it has exceeded, enhancing 160 designs that used fewer materials and more recycled content and were recyclable themselves. Further, it has committed to source all owned brand paper-based packaging from sustainably managed forests by 2022, work to eliminate polystyrene from packaging by 2022, add the How2Recycle label to all owned brand packaging, and create more demand for recycled packaging by creating new end markets for recycled materials by 2020⁸⁷.
- **Gap Inc.’s Athleta brand** incorporates recycled polyester and nylon into sourcing, which helps offset water impacts and waste streams associated with virgin materials inputs and preserves nonrenewable sources. In 2016, Gap diverted the equivalent of 7 million plastic water bottles from landfills by sourcing recycled polyester⁸⁸.
- **WRAP UK’s Sustainable Clothing Guide** shares simple steps to best practices on how to design, produce, and sell sustainable clothing that lasts longer, and that can easily be repaired and reused. Companies are already deploying best practices recommended by the guide. For example, ASOS, after identifying an issue with the blind felled hems on its tailored garments and their tendency to fail after washing or wearing, worked with WRAP to trial a bonding seal on both menswear and womenswear tailored trousers. The trial involved the application of Coats’ Hemseal thread to one hem on each pair of trousers. The garments were then subjected to a series of durability washes to assess how the hem strength performed⁸⁹.
- **The RealReal**, a leading authentic luxury consignment marketplace, has partnered with StellaMcCartney, to encourage luxury consignment and resale⁹⁰. This partnership with The RealReal will promote the extended lifecycle of luxury products and is yet another chapter in Stella McCartney’s sustainability efforts. The exclusive partnership program will launch in 2018 with a full scale national initiative.

<p>Responsible, engaged, and transparent value chain</p>	<ul style="list-style-type: none"> — Design products for circularity and durability — Consider using innovative distribution approaches such as recommerce, rental, and subscription models — Expand the offer of sustainable products in stores — Deploy lean management strategies that encourage operational efficiency — Evaluate resource impacts and develop corresponding raw material sourcing strategies that promote sustainability as far as the Tier 3 level — Mitigate the level of hazardous chemicals and other environmentally damaging effluents in the supply chain — Work towards the absolute reduction of GHG emissions in owned and operated facilities — Request key suppliers of branded apparel to report their sustainability performance — Coordinate sustainability and responsibility audit approaches to textile mills and factories on a sector basis 	<ul style="list-style-type: none"> — PVH has expanded its factory assessment program beyond cut and sew suppliers. In 2017 PVH started to assess trim supplier performance and invited them to complete the Higg Index FEM. In 2018 we expanded this program to also include mills and wet processors. This allowed greater visibility into practices within the supply chain and opened opportunities for capacity building across its suppliers⁹¹. — All of Inditex's sustainability standards and requirements, including social, environmental, and product health and safety standards, apply to all suppliers and manufacturers⁹². That is why innovative and integrated supply chain management is essential for guaranteeing their application and, therefore, contributing to the sustainability of the production model. The traceability of the supply chain and Inditex's commitment to transparency with its stakeholders, such as trade unions, international organizations and customers, is key to ensuring a responsible model of both production and consumption. — Chemical and environmental impacts reduction. Material supply chains are generally significant contributors to companies' environmental footprint. Large amounts of water, energy, and chemicals are needed to make materials for products. Companies benefit from the adoption of adopt holistic programs designed to manage the full suite of environmental and social impacts, including chemicals, waste, water use and emissions, and energy use. As part of these efforts, companies may comply with local laws for manufacturing site operations, as well as leading international consumer products legislation. In addition, in order to encourage transparency across the supply chain, companies may ask suppliers to complete a sourcing questionnaire and map their supply chains. — The Global Fashion Agenda collaborates with a group of Strategic Partners including Kering, H&M, Target, BESTSELLER, Li & Fung and Sustainable Apparel Coalition on setting a common agenda for focused industry efforts on sustainability in fashion⁹³. — Esquel Group, a large vertically integrated manufacturer, is developing the factory of the future in The Integral project in Jiumeiqiao, Guilin (China). The park demonstrates a pioneering eco-oriented development model in the textile and apparel industry, where manufacturing facilities and the natural environment coexist in perfect harmony⁹⁴.
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SDG 15: Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Relevant Cluster(s)	Integrated into core business	Case study spotlight
<p>Products, sourcing, and services</p>	<ul style="list-style-type: none"> — Conduct regular life cycle assessment of products and services — Technology advancement to reduce impacts 	<ul style="list-style-type: none"> — Cotton and other natural fiber production systems that reduce the use of chemical inputs can have a reduced impact on a product’s life cycle. A number of the companies interviewed use product life cycle assessments to assess the impact of the choice of certain fibers and materials. Tools such as The Higg MSI, which is an extensive database devoted to the environmental impacts of materials production, and Textile Exchange’s Material Snapshots, can help guide a company to make better fiber and material selections. — Target has set a goal to source 100 percent sustainable cotton by 2022 for owned and exclusive national brands in apparel, home, and essentials, and continue to implement a new cotton policy⁹⁵. — Cotton agriculture and significantly reduces the runoff from fertilizer use⁹⁶. Sourcing more sustainable cotton on a yearly basis creates a 28 percent reduction on the life cycle in comparison with conventional methodology. In the latest <i>2017 Textile Exchange Preferred Fibers and Materials (PFM) Benchmark Insights Report</i>, which combines data from 97 companies in 19 countries, Textile Exchange calculated a savings of 288.5 billion liters of water based on 2016 reported consumption of preferred cotton alone.



SDG 15: Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Responsible, engaged, and transparent value chain

- Improve transparency and traceability in textile supply chain requiring suppliers to responsibly source raw materials and products
- Extend the effective management of biodiversity and ecosystems services to the supply chain
- **CanopyStyle Initiative (Canopy)** is partnering with fashion brands, designers, and their viscose suppliers to keep the world's endangered forests out of viscose/rayon clothing through the CanopyStyle initiative. Canopy secures large-scale forest conservation and transforms unsustainable forest product supply chains by engaging business executives as champions for conservation and sustainability.
- **Kering has committed to ensure the traceability of 95% of its key raw materials by 2018 and 100% by 2025.** It also plans to increase the scope of raw materials covered by its standards, such as precious skins, leather and fur, gold and diamonds, cotton, silk, cashmere, wool, viscose, nylon, plastics, silver and brass, and paper and packaging⁹⁷.
- **VF Corp.** has adopted a sustainable forestry policy, which includes purchasing guidelines for materials that go into the company's clothing and packaging, especially wood pulp, paper, and wood-based fabrics like rayon and viscose⁹⁸.
- **Forest for Fashion.** UNECE, in cooperation with FAO, is cooperating with several partners in the forest sector to promote forest fibers as a sustainable alternative to more environmentally unfriendly fabrics⁹⁹.

Leading practices and multistakeholder partnerships

It is important to understand how existing initiatives can contribute to the SDGs, and where there are opportunities for collaborative action. The section below is a representative list of leading industry groups and initiatives. Although it does not cover all initiatives in the textile, retail, and apparel industry, it is meant to serve as a resource for companies seeking to ramp up sustainability efforts aligned with business goals.

ACT (Action, Collaboration, Transformation): ACT is an industry-wide collective bargaining agreement working to ensure living wages for garment workers in key sourcing countries. Now in its second phase, the multistakeholder initiative is establishing programs and developing responsible purchasing practices for the industry¹⁰⁰.

Better Mill Initiative (BMI)^{101,102}. The BMI aims to improve the sustainability performance of wet processing in the textile supply chain in China. The program is a partnership between Solidaridad, brands and 60–75 textile wet processing mills, in the textile clusters of the Yangtze and the Pearl River Delta regions. As of August 2014, a total of seven brands and 40 mills participated in the program, followed by a third phase at the end of 2014 in the Pearl River Delta region. Within the first 15 months of this two-and-a-half-year program, participating mills collectively achieved savings in resources equaling 2.6 billion tons of water, 28,000 tons of coal, 4,000 tons of chemicals, 5.4 billion kWh of energy, and EUR 5.5 million in savings. The BMI takes an integrated approach to cleaner production, addressing seven impact areas. Besides water efficiency and effluent, the BMI also addresses energy efficiency, chemicals management, waste, air emissions, and social aspects (OHS/worker management dialogue). Where possible, the program aligns with or integrates existing sector initiatives.

In order to contribute to the above-mentioned overall objective, activities are implemented in three areas:

- Mill capacity building: creating measurable improvements in the seven impact areas mentioned above, through a combination of tailor-made support and group learning
- Facilitation of stakeholder dialogue to address challenges that cannot be solved within the factory gates alone
- Communication and outreach, sharing the learnings and best practices aiming to inspire other brands, retailers, and mills to implement improvements.

Better Cotton Initiative (BCI). BCI is a group of organizations focused on promoting a more sustainable way of growing cotton. Members of the global cotton supply chain are now collectively addressing the negative impacts of mainstream cotton production by supporting this globally recognized definition, generating market demand for Better Cotton, and sharing information and knowledge to enable continuous improvement on everybody's part. BCI has developed a Better Cotton Standard System meant to establish Better Cotton as a mainstream commodity by providing capacity building and assurance assessments, supporting a claims framework, and establishing monitoring and evaluation mechanisms to measure progress and change¹⁰³.

Better Work. The Better Work initiative is a collaboration between the International Labor Organization (ILO) and the International Finance Corporation (IFC) that convenes all levels of the garment industry to improve working conditions and promote labor rights of workers while boosting industry competitiveness¹⁰⁴. As a result of their participation with Better Work, factories have reportedly improved compliance with ILO core labor standards and national legislation covering compensation, contracts, occupational safety and health, and working time. This has significantly improved working conditions and, at the same time, enhanced factories' productivity and profitability. The program is active in 1,450 factories employing more than 1.9 million workers in seven countries. As well as advising factories, Better Work collaborates with governments to improve labor laws, and with brands to ensure progress is

sustained. We also advise unions on how to give workers a greater say in their lives, and work with donors to help achieve their broader development goals.

bluesign®. The bluesign® system is designed to eliminate harmful substances from the beginning of the manufacturing process and sets and controls standards for an environmentally friendly and safe production¹⁰⁵. This not only ensures that the final textile product meets very stringent consumer safety requirements worldwide but also provides confidence to the consumer to acquire a sustainable product. Textile manufacturers that become bluesign® system partners agree at the outset to establish management systems for improving environmental performance in five key areas of the production process: resource productivity, consumer safety, water emissions, air emissions, and occupational health and safety. System partners regularly report their progress in energy, water and chemical usage and are subject to on-site audits. The bluesign® system is based on input-stream management. Chemicals are assigned to one of three categories: blue – safe to use; gray – special handling required; and black – forbidden. The bluesign® system helps factories properly manage gray chemicals and replace black chemicals with safer alternatives.

CanopyStyle Initiative (Canopy). Canopy is an environmental NGO that partners with fashion brands, designers, and their viscose suppliers to keep the world’s endangered forests out of viscose/rayon clothing through its CanopyStyle initiative. Around the world, ancient and endangered forests are still being logged at an alarming rate. Depending on the region, 35 percent to 60 percent of the world’s forests continue to be felled to manufacture consumable products, from tee shirts to toilet paper. The loss of these critical forests puts species, communities, and our climate at risk. Canopy secures large-scale forest conservation and transforms unsustainable forest product supply chains by engaging business executives as champions for conservation and sustainability.

CEO Water Mandate

The CEO Water Mandate is a special initiative of the UN Secretary-General and the UN Global Compact, implemented in partnership with the Pacific Institute. These key partners work together as the CEO Water Mandate Secretariat. The CEO Water Mandate mobilizes business leaders, including textile, retail, and apparel companies, to advance water stewardship, sanitation, and the SDGs in partnership with the United Nations, governments, peers, civil society, and others¹⁰⁶. Endorsers of the CEO Water Mandate recognize that they can identify and reduce critical water risks to their businesses, seize water-related opportunities, and contribute to the SDGs. As of 2015, 29 percent of the world’s population did not have access to safely managed drinking water and 61 percent did not have access to a safely managed sanitation service¹⁰⁷. Additionally, more than 40 percent of the global population is affected by water scarcity, and that number is projected to rise. Meanwhile, more than 80 percent of global wastewater is discharged without treatment¹⁰⁸. The SDGs address these issues among others, and sustainable business models contributing to completion of the SDGs could lead to trillions in market opportunities by 2030¹⁰⁹; water issues represent both a challenge and an opportunity for the private sector. In fact, corporate water stewardship can be thought of as the business contribution to SDG 6: Clean Water and Sanitation. The Mandate offers a unique platform to share best and emerging practices while forging multistakeholder partnerships to address challenges related to water scarcity, water quality, water governance, and access to water and sanitation.

One Mandate collaboration with Endorser companies centers around advancing apparel sector leadership in water stewardship. The Mandate will work with apparel brands and other companies to establish place-based collective action projects around water stewardship in river basins where the brands operate with increasing business water risk. Thus, the initiative will enable scaled impact on water security in a basin, especially where it can leverage funding opportunities and build off of existing work by stakeholders in the area (including other industries, government, academics, NGOs, and development agencies). The 2018–2019 activities will take place in the Cauvery River Basin in India, where the partnership will pilot test the context-based water targets methodology to determine regional context and envision basin sustainability, followed by implementation of a water stewardship project. Key

activities in the Cauvery River Basin are to reduce the water risk that apparel companies face throughout their value chain and contribute to basin level water security, while promoting apparel sector water stewardship best practice through an Apparel Industry page on the Water Action Hub (the Hub) Web site.

The Hub is an online water stewardship knowledge sharing and collaboration tool developed by the CEO Water Mandate and the Pacific Institute that visually represents water stewardship projects and organizations on a global map¹¹⁰. The Hub helps companies and other organizations address water risk and advance sustainable water management by raising awareness of water stewardship projects around the world and the organizations administering them, allowing organizations to propose new stewardship projects and garner interest among potential partners, and facilitating water stewardship partnerships and collective action. Textile, retail, and apparel companies will find apparel-related projects, organizations, and resources on the Hub's Apparel Industry page¹¹¹. Ultimately, the Hub aims to catalog and raise awareness of the vast network of water stewardship projects around the world in order to inspire action, share best practice and innovative ideas, and promote collaboration among the organizations committed to addressing the world's water challenges.

The CEO Water Mandate also develops and maintains the Water Stewardship Toolbox, a collection of resources that help companies and others advance water stewardship¹¹². The Toolbox can be filtered by phase of the stewardship journey, SDG target, resource type, scope, region, industry sector, and more. Textile, retail, and apparel companies can find industry-specific tools as well as broader water stewardship resources that apply to their value chain and corporate strategy.

Content Claim Standard (CCS) and Recycled Content Standard (RCS). Textile Exchange's CCS is a chain of custody standard that provides companies with a tool to verify that one or more specific input materials are in a final product. It requires that each organization along the supply chain take sufficient steps to ensure that the integrity and identity of the input material is preserved. Textile Exchange's RCS is a chain of custody standard to track recycled raw materials through the supply chain.

Clean by Design (CBD). CBD is a green supply chain program that calls upon multinational apparel retailers and fashion brands to improve upon environmental impacts in their factories abroad. Led by the Natural Resource Defense Council (NRDC), the program improves industrial process efficiency and provides a comprehensive system that reduces energy, water, and chemical use in textile mills, the apparel and footwear industry's most resource-intensive production segment. Since 2007, the approach has been introduced to more than 200 mills of all ages and sizes. The program has demonstrated excellent environmental and financial return on investment and could be scaled to any level given appropriate demand.¹¹³

Cotton Connect. Cotton Connect works with brands and retailers to enable them to develop a more robust and resilient cotton supply chain. They do this by connecting brands and retailers to farmers to create a transparent supply chain, training farmers in agro-economic practices, and supporting the enhancement of farmer livelihoods and strong farming communities¹¹⁴.

Cradle to Cradle (C2C) Certified™ Product Standard. C2C is an independent, third-party verified, certification program that assesses products and materials for safety to human and environmental health, design for future use cycles, and manufacturing methods. Its highest Platinum requirement means that no substances of concern are present in a product or used in the final stages of production, including the dyeing process. Cotton used is certified organic so no synthetic pesticides or fertilizers are used during cotton growing¹¹⁵.

European Outdoor Group (EOG). EOG undertakes a number of projects for the benefit of the whole European outdoor industry. Key areas of EOG activity include sustained, in-depth, and representative market research; coordination and promotion of responsible industry practices; industry workshops and

networking events; collaboration with trade shows; cooperation with national trade associations; cooperation with European decision makers; and promotion of best practices in all areas of the sector¹¹⁶.

Fair Fashion Center (FFC). The FFC is a research initiative housed out of Glasgow Caledonian New York College that works with leading companies to promote market-based solutions that combine economic value creation with environmental stewardship, social inclusion, and sound ethics. In particular, the FFC seeks to enable cross-sector collaboration by partnering with international organizations such as the United Nations, subject matter experts, and the industry's leading executives¹¹⁷.

Fair Labor Association (FLA). FLA is a collaborative effort of universities, civil society organizations, and socially responsible companies dedicated to protecting workers' rights around the world. Since 1999, FLA has helped improve the lives of millions of workers around the world. It creates lasting solutions to abusive labor practices by offering tools and resources to companies; delivering training to factory workers and management; conducting due diligence through independent assessments; and advocating for greater accountability and transparency from companies, manufacturers, factories, and others involved in global supply chains¹¹⁸.

Fashion for Good. Fashion for Good, launched with an initial grant by founding partner, C&A Foundation, is a platform for innovation. The initiative works in the context of "Five Goods" including good materials, economy, energy, water, and lives. Fashion for Good works with a Silicon-valley based technology accelerator to identify and scale start-up innovators. Through this platform, Fashion for Good accepts 10 start-ups twice a year and provides dedicated mentorship, fundraising, finance and business development support, connections to a network of industry contacts, and business planning guidance. In addition, Fashion for Good offers an 18-month scaling program based on jointly defined milestones for innovators that have passed the proof of concept phase. This includes offering start-ups a dedicated team that provides bespoke support and access to expertise, customers and capital¹¹⁹.

Forests for Fashion Initiative. The Forests for Fashion initiative represents a partnership between the United Nations Economic Commission for Europe (UNECE), Food and Agriculture Organization of the United Nations (FAO), and PEFC International¹²⁰.

Global Organic Textile Standard. GOTS is a voluntary global standard for the entire post-harvest processing (including spinning, knitting, weaving, dyeing and manufacturing) of apparel and home textiles made with organic fiber (such as organic cotton and organic wool), and includes both environmental and social criteria. Key provisions include a ban on the use of genetically modified organisms (GMOs), highly hazardous chemicals (such as azo dyes and formaldehyde), and child labor, while requiring strong social compliance management systems and strict waste water treatment practices¹²¹.

Global Recycling Standard (GRS). Textile Exchange's GRS is an international, voluntary, full product standard that sets requirements for third-party certification of recycled content, chain of custody, social and environmental practices and chemical restrictions¹²².

Making Fashion Circular. Led by the Ellen MacArthur Initiative, Make Fashion Circular drives collaboration between industry leaders and other key stakeholders including city authorities, fashion producers, designers, and brands to drive momentum towards the vision for a circular economy for fashion. Its objectives are to ensure clothes are made from safe and renewable materials, new business models increase their use, and old clothes are turned into new. In doing so, the initiative hopes to capture \$460 billion currently lost due to the underutilization of clothes¹²³.

OEKO-TEX® standard. The STANDARD 100 by OEKO-TEX® is a worldwide consistent, independent testing and certification system for raw, semifinished, and finished textile products at all processing levels, as well as accessory materials used. Examples of articles that can be certified: raw and dyed/finished yarns; woven and knitted fabrics; accessories, such as buttons, zip fasteners, sewing

threads, or labels; and ready-made articles of various types (garments of all types, domestic and household textiles, bed linen, terry products, and much more)¹²⁴.

Outdoor Industry Association (OIA). The Outdoor Industry Association is a membership-driven trade organization for the outdoor industry. In collaboration with its members, it is a force for the industry in recreation and trade policy, sustainable business innovation, and increasing outdoor participation¹²⁵.

Organic Cotton Accelerator (OCA). OCA focuses on building an organic cotton sector that positively impacts the entire value chain from the farmer to the consumer. Its partners include brands, suppliers, NGOs, and knowledge institutions that represent industry players committed to taking collective action in organic cotton¹²⁶.

Responsible Down Standard (RDS). Textile Exchange's RDS is an independent global standard which aims to ensure that down and feathers come from animals that have not been subjected to an unnecessary harm. The standard also follows the chain of custody from farm to product¹²⁷.

Responsible Wool Standard (RWS). Textile Exchange's RWS is a voluntary global standard that addresses the welfare of sheep and of the land they graze on¹²⁸.

Retail Industry Leaders Association (RILA). RILA is a trade association that promotes consumer choice and economic freedom through public policy and industry operational excellence. RILA's Retail Sustainability Initiative in particular engages retail sustainability, corporate responsibility, energy, and environmental compliance leaders to share best practices, benchmark approaches, and collaborate on leading sustainability issues. Its recently published Retail Horizons program features a business planning toolkit for future scenarios characterized by natural resource constraints, evolving consumer preferences, and emerging technologies¹²⁹.

Social Accountability International (SAI). SAI is a global nongovernment organization advancing human rights at work¹³⁰. SAI empowers workers and managers at all levels of businesses and supply chains, using its multi-industry SA8000® Standard, as well as Social Fingerprint®, TenSquared, and other training and capacity building programs. SAI is a leader in policy and implementation, working together with a diverse group of stakeholders, including brands, suppliers, governments, trade unions, nonprofits, and academia.

Sustainable Apparel Coalition

The Sustainable Apparel Coalition (SAC) is an industry-wide group of more than 200 leading apparel, footwear, and textile brands, retailers, suppliers, service providers, trade associations, nonprofits/NGOs, and academic institutions working to reduce the environmental and social impacts of products around the world¹³¹. Through multistakeholder engagement, the SAC seeks to lead the industry toward a shared vision of sustainability built upon a common approach for measuring and evaluating apparel, footwear, and textile product sustainability performance that spotlights priorities for action and opportunities for technological innovation. The SAC develops the Higg Index, a suite of tools that enables brands, retailers, and facilities of all sizes—at every stage in their sustainability journey—to accurately measure and score a company or product's sustainability performance. According to the 2018 Pulse of Fashion, which calculates fashion's sustainability "pulse" based on data from the Higg Index tool, the industry rated 38 out of 100, an improvement over the prior year's score of 32.

In 2017, the SAC supported the creation of the Apparel Impact Institute (AII) to work with brands and manufacturers to select, fund, and scale projects that dramatically improve the sustainability impact of the apparel and footwear industry. The AII's first project will focus on textile mill improvement, one of the most environmentally impactful segments of clothing production. One of AII's first collaborations will be with the Clean by Design program developed by the NRDC to help Chinese textile mills improve their environmental performance. China plays a central role in global manufacturing, but its high concentration

of factories has created a significant pollution issue in the nation. Today, more than 100 mills benefit from the Clean by Design program, which allows them to use the Higg Index to assess environmental impacts such as water and energy performance. This collaboration helps to advance responsible production under SDG 12 as well as highlights the importance of partnerships under SDG 17 to scale existing industry programs.

The Human Rights Opportunity. Developed by Shift, a US-based nonprofit whose mission is driven by implementing the UN Guiding Principles on Business and Human Rights, and the World Business Council on Sustainable Development (WBCSD), the Human Rights Opportunity is a set of 15 practical examples of how companies and multi-stakeholder initiatives are addressing human rights impacts and delivering contributions to the SDGs. The project focuses on four issues – living wages, forced labor, gender equality, and land rights – that provide an illustrative set of business impacts on people across sectors, geographies and along the supply chain¹³².

UN Global Compact (UNGC). UNGC is an UN-led coalition of approximately 9,500 companies in 160 countries, and stakeholders from the government, academic, and nonprofit sectors that seeks to align strategies and operations with universal principles on human rights, labor, environment, and anticorruption. The UNGC can serve as a resource for companies seeking to implement the SDGs, particularly through the UNGC-led Women’s Empowerment Principles and corporate goal setting¹³³.

WBCSD’s Factor10 Initiative. Factor10 is a coalition of 30 companies across 16 sectors seeking to scale up circular economy solutions. The initiative will focus on developing transformative cross-value chain solutions that unlock circular opportunities for business, generating circular economy knowledge to help business understand the landscape, best practices, and leading examples, and amplifying the business voice globally.

World Resources Institute (WRI): Meeting Demand for Clothes with New Business Models and Common Metrics Rooted in Science

Building on WRI’s 2017 working paper, *The Elephant in the Boardroom*, WRI has partnered with leaders in the apparel industry to challenge conventional ways of selling clothes. Companies need common methods and metrics to “do the math” on what future demand for their products will mean in terms of its impact on people and natural resources. Specifically, WRI and partners want to show how circular economy models (resale, recommerce, rental, leasing, repairs) can help meet customers’ growing demands in tomorrow’s markets while also meeting global environmental and social goals.

WRI plans to outline the credible method(s) for quantifying impacts, such as greenhouse gas emissions, water stress, chemical pollution and waste. Likewise, WRI intends to offer guidance for measuring the impacts on societal goals, such as gender equity, poverty alleviation, and employment. Ultimately, this will be an opportunity for the apparel sector to be a leader on sustainable consumption. Companies can raise the bar in terms of meeting customers’ needs with far fewer resources and far less environmental or social impacts.

A complementary stream of work, the **Science Based Targets initiative**, focuses on developing guidance for companies in the apparel, textile, and footwear sectors to set science-based, ambitious reduction targets for their GHG emissions that are in line with the level of decarbonization required to keep global temperature increase within 2°C of pre-industrial levels. The guidance will define the business case for companies in these sectors to set science-based targets for Scope 1 and 2 emissions (this includes direct emissions from operations and purchased electricity), provide case studies on best practices, and give guidance to companies on choosing and applying various science-based target-setting methods. The guidance will also help companies collect and calculate inventory data for Scope 3 (value chain) emissions, develop ambitious Scope 3 targets, and engage with suppliers to drive Scope 3 emissions reductions.

Leading companies' adoption and implementation of SBTs demonstrates the technical and economic feasibility of low-carbon production for policymakers and other stakeholders. As of the date of this publication, several apparel companies (**ASICS Corporation, Kering, Levi Strauss, Marks & Spencer, and Walmart**) have approved science-based targets, while 18 others have committed to setting science-based targets¹³⁴. The initiative's goal is that by this year, 30 of the largest apparel companies have committed to set science-based targets, and by 2020, 50 have set science-based targets for their operation and ambitious targets for their supply chains.

In line with setting goals rooted in science, WRI is looking beyond climate to water where it, in collaboration with CDP, Pacific Institute, the UN Global Compact CEO Water Mandate, Nature Conservancy, WWF, and UNEP-DHI, is working to establish a road map to help corporations develop context-based water targets as current methods for creating corporate water stewardship targets are inadequate, largely because they ignore the local water context. The road map will help corporations consider local water contexts, inform targets with science in order to remove subjectivity and establish common language and understanding of sustainable water use, align goals with public and private sector initiatives, and involve stakeholders.

Worldwide Responsible Accredited Production (WRAP). WRAP is an independent, objective, nonprofit team of global social compliance experts dedicated to promoting safe, lawful, humane, and ethical manufacturing around the world through certification and education¹³⁵.

Zero Discharge of Hazardous Chemicals (ZDHC)

ZDHC is a global industry collaboration with the vision of widespread implementation of sustainable chemistry, driving innovations and environmental best practices in the textile, apparel, leather, and footwear value chains. Through collaborative engagement, standard/guideline setting, and implementation, ZDHC takes an internationally leading role in advancing these sectors towards zero discharge of hazardous chemicals to protect the environment and people's well-being and facilitate a more sustainable lifestyle. The collaboration involves major fashion brands and retailers, value chain affiliates, such as textile mills, tanneries, chemical companies, and associates¹³⁶.

The cornerstone of ZDHC's approach is the Manufacturing Restricted Substances List (ZDHC MRSL), used as the basis of its toolkit including the ZDHC Gateway – Chemical Module for safer and innovative chemical alternatives that conform to ZDHC MRSL, the Leader Programme to measure and improve implementation, and the ZDHC Gateway – Wastewater Module, which discloses verified wastewater test results publicly. ZDHC's Academy offers certified training on chemical management and ZDHC's Implementation HUB supports the value chain through accredited experts with continuous improvements and increased environmental performance.

ZDHC's mission is in line with the principles of the UN's SDGs and contributes to the achievement and advancement of several key aspects of the sustainable development agenda. The activities of ZDHC strongly center around SDG 12 on responsible consumption and production. Focused mainly on the production side, the work of ZDHC involves sustainable management of chemicals and related wastes throughout their life cycle, and to significantly reduce their release to air, water and soil. With this approach, ZDHC also contributes to SDG 6 with improved water quality by reducing pollution and minimizing release of hazardous chemicals.

The environmental challenges along the apparel, textile, leather, and footwear value chains cannot be solved by on single company on its own and ZDHC is offering a powerful collaboration platform for collective action, capacity building, best practices sharing, and scaleable innovation in the sector. In line with SDG 17, ZDHC partners within the organization across different stakeholder groups as well as forms global, regional, and local partnerships to accelerate impact on the ground and drive sustainable development on a systemic scale.

Textile Exchange: Preferred Fibers – Where the sustainable textile supply chain starts

More than 90 percent of the fiber market is dominated by three fiber types: synthetics, cotton, and cellulosics¹³⁷. These fibers significantly impact global agriculture, nonrenewable resources, and manufacturing. As such, understanding the impacts of a fiber choice is critically important in any discussion of sustainable textiles. In many cases, replacing a conventional fiber or its production system with an alternative (or “preferred” as defined below) fiber or production system can improve the overall product footprint and its impacts but there can still be tradeoffs, several of which are discussed below.

What exactly is a preferred fiber?

A preferred fiber is one that is measurably more sustainable than a conventional or alternative version. To identify a fiber as preferred, four key questions are important:

- Is it possible to trace the fiber?
- Are there standards or certifications for the fiber?
- How does the fiber score on the HIGG MSI, Made-by Environmental Benchmark, other fiber scoring programs or have a lifecycle assessment?
- Does the transition from the conventional version create positive environmental or social impacts?

Recycled Polyester: Replacing virgin polyester with recycled polyester (rPET) diverts plastic from landfills, reduces dependence on fossil fuels and rPET has been shown to use less energy. However, plastic and microplastic pollution represents an urgent global problem yet to be resolved which opens up opportunities for supply chain engagement and innovative business models.

Cotton: Improving cotton production systems has been the subject of several ongoing industry commitments. While there are region-specific challenges, the rise in preferred cotton (pCotton) production and consumption can help to reduce environmental impacts, improve land management practices, reduce pollution, preserve ecosystems and also contribute to better farmer health and wellbeing. Certain pCotton programs such as organic fair trade and organic cotton can advance all of the SDGs¹³⁸. The emphasis on water conservation in many pCotton cultivation systems is an important factor for the water stressed regions of the world where cotton is grown. When evaluating the impact of pCotton or conventional cotton in a fiber portfolio, it is important to consider the geographic region of production and the environmental, social and economic impacts of different production systems. Reducing the percentage of fiber from chemically intensive cultivation practices to more regenerative cultivation practices is widely considered necessary to meet the sustainable agriculture and environmental targets under the SDGs. There are also a number of encouraging programs that promote soil health in cotton cultivation, including practices such as no-till, cover cropping, crop rotations and rotational grazing. Linkages to food security and sustainable agriculture under SDG 2 and water stewardship targets under SDG 6 could generally be priorities as well as eliminating the continuing practice of forced labor and child labor in certain cotton supply chains. Moreover, the fluctuations in the



Key resource

List of preferred fibers

- Alternative cotton cultivation systems categorized as pCotton (including Better Cotton Initiative, Cotton Made in Africa, Fair Trade, Organic Cotton, Organic Fair Trade, Reel Cotton, Recycled Cotton);
- Synthetics (Recycled Polyester, Recycled Nylon*, Bio Synthetics*)
- Man Made (MM) Cellulosics (TENCEL™, Lyocell, Lyocell, REFIBRA™ Lyocell, Preferred Modal, Preferred Viscose, Recycled MM Cellulosics*)
- Animal Derived Fibers (Certified Down, Recycled Down*, Responsible Wool*, Recycled Wool*).

* Under review for inclusion in Textile Exchange's 2019 Preferred Fibers Benchmark.

commodity pricing of cotton do not always compensate for the actual costs of growing cotton, so addressing this disparity could do much to advance SDG 1 and SDG 8.

Cellulosics: Manmade Cellulosic (MMCs) fibers, which are derived from plants that are processed into a pulp and then extruded into a fiber, are a fast-growing segment of the textile industry. Preferred manmade cellulosics (pMMCs) include responsible forestry sourcing and management of chemicals, water and energy used in manufacturing which are key to addressing SDG 9, 11 and 12 impacts. According to Textile Exchange, MMCs (Viscose/Rayon, Lyocell, Modal) are the second most important group of cellulosic fibers after cotton, with an estimated average demand of 5-6 million tons annually. MMC, usually made of wood or bamboo, are produced mostly in Asia. Sustainable forest management includes the preservation of biodiversity, productivity, regeneration capacity, vitality and their potential to fulfill, now and in the future, relevant ecological, economic and social functions, at local, national and global levels, and that does not cause damage to other ecosystems¹³⁹.

Animal Derived Fibers: While the SDGs do not specifically cover animal welfare other than in the general context of agriculture, food security and biodiversity, animal welfare directly and indirectly impacts many of the goals. SDG 15 specifically relates to the universally adopted Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets adopted under the Convention on Biological Diversity. Many of the world's poor depend on animals for jobs, food, income, transport, social status and cultural identification. From an industry perspective, good welfare practices improve animal survival, reduce production costs, enhance profitability, and increase resilience to disasters. All of these factors impact poverty and health. Breeding for local conditions and providing higher quality feeds can also lead to significant reductions in greenhouse gases, helping to mitigate global warming. Textile Exchange's Responsible Wool Standard, as one example, offers farmers a path forward to measure and understand the impacts of their farming practices, and to adopt best practices that will lead to better land health. Another example is Textile Exchange's Responsible Down Standard¹⁴⁰.





















Mapping Impacts of Preferred Fibers to the SDGs

The SDGs have the potential to develop into a common language for the industry, regulators, and consumers to communicate an ideal textile supply chain. Increased use preferred fibers that minimize resource consumption and improve social impacts in particular provide the opportunity to advance responsible consumption and production patterns (SDG 12: Responsible Consumption and Production)– including through pre-competitive industry initiatives (SDG 17: Partnerships for the Goals) that help to ensure more resilient supply chains. As brands seek to increase their SDG impact, adopting preferred fibers offers potential linkages for companies seeking impact on the SDGs. Additional resources on the discussion of fiber mapping to the SDGs is available at textilesforsdgs.org.

Challenges of Scaling Preferred Fibers

Preferred fibers offer many positive outcomes to advance the SDGs, but there are also tradeoffs that need to be addressed, including fiber-specific impacts as well as production impacts based on resource consumption, water, chemistry, energy and other inputs. Preferred fibers are also characterized by the same economic challenges that are faced by the value chain today. The price for such fibers needs to reflect the true costs of production, especially as markets are being developed. Scaling production of preferred fibers will require the commercialization of not only new technologies but also the development of new business models and the supply chains to support these preferred fibers. New manufacturing facilities will need to be built consistent with the framework contemplated by SDG 9 (Innovation and infrastructure), requiring significant investments in both time and money. As with any new innovation, when demand exceeds the current supply, issues around source of feed stock, collection and production methodologies, fiber authenticity, safety and verification need to be built into the system so as to ensure the positive impacts are verifiable, and that a system of rewards favors best practices and not the lowest price.

Preferred Fiber and Materials (PFM) Consumption and Impacts Snapshot for 2016

Fiber	Consumption	Outcomes	Impact Savings
 Preferred Cotton	 598,333 mt	 1,022,515 ha land under organic or improved land management	 288.54 billion liters of water consumed  3,073 million MJ fossil fuel energy  220,472 tons of CO ₂ eq
 Recycled Polyester	 47,407 mt	 2.9 billion FET bottles diverted from landfill	 2,789 million MJ fossil fuel energy  89,699 tons of CO ₂ eq
 Preferred MM Cellulosics	 24,332 mt	 7,892 ha area of sustainably sourced wood	 2.63 billion liters of water used  942 million MJ fossil fuel energy  88,755 tons of CO ₂ eq
 Preferred Down	 1,927 mt	 88.3 million number of birds protected	

Notes: (i) Source PFM Benchmark Annual Insights Report 2017, Textile Exchange (ii) Preferred Cotton water, energy and Co2 savings based on organic cotton, CmiA and recycled cotton only.

Recommended Preferred Fiber Challenges and Commitments

There are a number of preferred fiber challenges and commitments that brands, retailers, and their suppliers can support in order to improve their fiber portfolio. Working collaboratively on a precompetitive basis can help to build and scale more sustainable fiber value chains. The following are three fiber challenges activated or supported by Textile Exchange, with more in development:

- Cotton in Transition to Organic
- Organic Cotton
- rPET.

Additional information, including on related Textile Exchange standards are available at TextileExchange.org/FiberChallenges.

Integrating the SDGs into your business

As part of the interviews conducted for this report, KPMG and Textile Exchange asked companies to share the key challenges that emerged in the process of identifying key SDGs that impact the business and responses to these issues. Below are takeaways presented in chronological order for that are currently exploring or are in the process of integrating the SDGs into their strategy.

Products and Services

- **Consider SDGs as you design your products, services and shared value activities.** The UN identified a \$2.5 trillion investment gap in developing countries to finance the delivery of the SDGs¹⁴¹. In practice, this requires a range of innovative funding sources such as impact investing, mobilization of domestic resources such as taxes and remittances. It also means the need for partnerships with the private sector that go beyond grants and corporate philanthropy. The SDG Readiness mapping included in this report is meant to provide a snapshot of country specific needs that will arise as governments seek partners to implement the SDGs in the next few years. Consider these needs in the context of designing products and services, and other activities meant to position the company as a thought leader on the SDGs.
- **Integrate SDGs into existing corporate strategy.** Position proposals to incorporate the SDGs into a broader strategy as a way of supporting the achievement of existing milestones and metrics rather than a new stand-alone initiative in order to overcome resource and bandwidth issues at the leadership level.
- **Build the SDGs into materiality assessments.** Materiality assessments form the basis for many companies' mid to long term sustainability strategies. This framework serves as a natural foundation to prioritize SDG focus areas, determine milestones, and select strategic partners. Progress on selected SDGs can be tracked annually as part of the resulting strategy responses.



Key resource

The UN Global Compact and Global Reporting Initiative's Analysis of the Goals and Targets document maps established disclosures for reporting on the SDGs.



Key resources

- Refer to the UN Global Compact and KPMG SDG Industry Matrices for examples of SDG implementation in other industries including the Food, Beverage and Consumer sectors.
- Engage at the textile, apparel and retail sector level with Textile Exchange's SDG Action Roundtable and its online resource which includes insights from Textile Exchange Members, sector-specific tools and resources, a mapping of preferred fibers and materials to the SDGs, and relevant linkages among the SDGs.

- **Train staff as advisors rather than auditors.** Consider developing strategic management committees in factories co-led with trained company staff to give workers a forum to raise concerns with management while building capacity on technical issues. This approach allows companies to encourage compliance with global standards, build on existing relationships with suppliers, and increase productivity by reducing human resource and other incidents that carry reputational implications.
- **Prepare for an iterative process with company leaders.** The SDGs serve as a gap analysis tool to assess areas where the company can be adding more value to society and its own business. However, according to nearly every companies interviewed, resources, interdepartmental buy-in and bandwidth are common obstacles. Where companies ultimately integrated the SDGs in their thinking, they reported successfully translating SDGs into business opportunities.
- **Go beyond corporate responsibility.** Sustainability fosters innovation, and often represents opportunities for business to become more disruptive, competitive and efficient. Corporate foundation led-initiatives around the SDGs can lay the foundation for a deeper engagement linked to broader business objectives.

Underexploited market opportunities

- **Speak the language.** Business as usual will negatively impact the sustainability of tomorrow's business. The SDGs are a natural framework to assess current production models. A Pulse of the Fashion industry report concludes that by 2030, fashion brands can see a decline in earnings before interest and tax margins of more than three percentage points, or \$52 billion. Inversely, adoption of new models could be as much as \$192 billion if the fashion industry would successfully address environmental and social issues¹⁴². Translating the SDGs into simple to understand company language helps encourage executive ownership. The KPMG Boardroom Questions listed on the right can open discussions around organizational risk, corporate strategy, stakeholder relationships, value creation, and opportunities to innovate.
- **Engage customers on SDG work.** While consumers are increasingly aware of and consider sustainability issues in their buying choices, most are not aware of the transformative economic and social opportunities posed by the SDGs. Communicating the environmental and social impacts of a company's product often helps customers more closely identify with impact reduction and sustainability efforts is advised. This approach helps build trust with target markets and can build internal support with corporate leadership.

Responsible, engaged and transparent value chain

- **Harmonize audit requirements to avoid overburdening suppliers.** Companies require a significant amount of information from their suppliers, but need to recognize that these suppliers have different financial situations and multiple frameworks. Consider establishing flexible policies that can accommodate robust certifications while allowing suppliers to meet product demands in the required business timeframe. For example, brands can tailor reporting requirements based on supplier tiers to avoid audit fatigue and unnecessary reporting where applicable.
- **Consider how existing monitoring mechanisms can be adjusted to track progress on the SDGs.** Building in the positive and negative externalities of sourcing, production, and distribution into the company's operations and profit and loss calculation helps improve internal decision making related to its impact on the environment, its workers and its customers. The true value created by a company may serve as an authentic story that it can 1) take to suppliers to obtain their support on sustainability initiatives 2) leverage in policy discussions with government ministries, and 3) use a basis to inform strategic partnerships with nonprofits and other market influencers.



Key resources

- How do the SDGs map against our risk management strategy?
- How will the SDGs impact our sourcing strategy if countries integrate the targets and goals into their economies (e.g., China)?
- What country specific opportunities are there for our organization and our main suppliers? Can the SDGs help to stabilize any regional areas of risk for the organization?
- How can you strengthen your value creation strategy to identify business opportunities in addressing economic, social and environmental challenges?
- How can you align employment and human resource development strategies to the SDGs?
- What types of water, energy, climate and social risks are we exposed to at a country level?
- How are demands and needs of an emerging middle class in high growth markets affecting our business?
- What value add do your partnerships with industry groups, nonprofits and other market influencers bring?
- Do we have the right systems and processes in place to tell our value creation story?

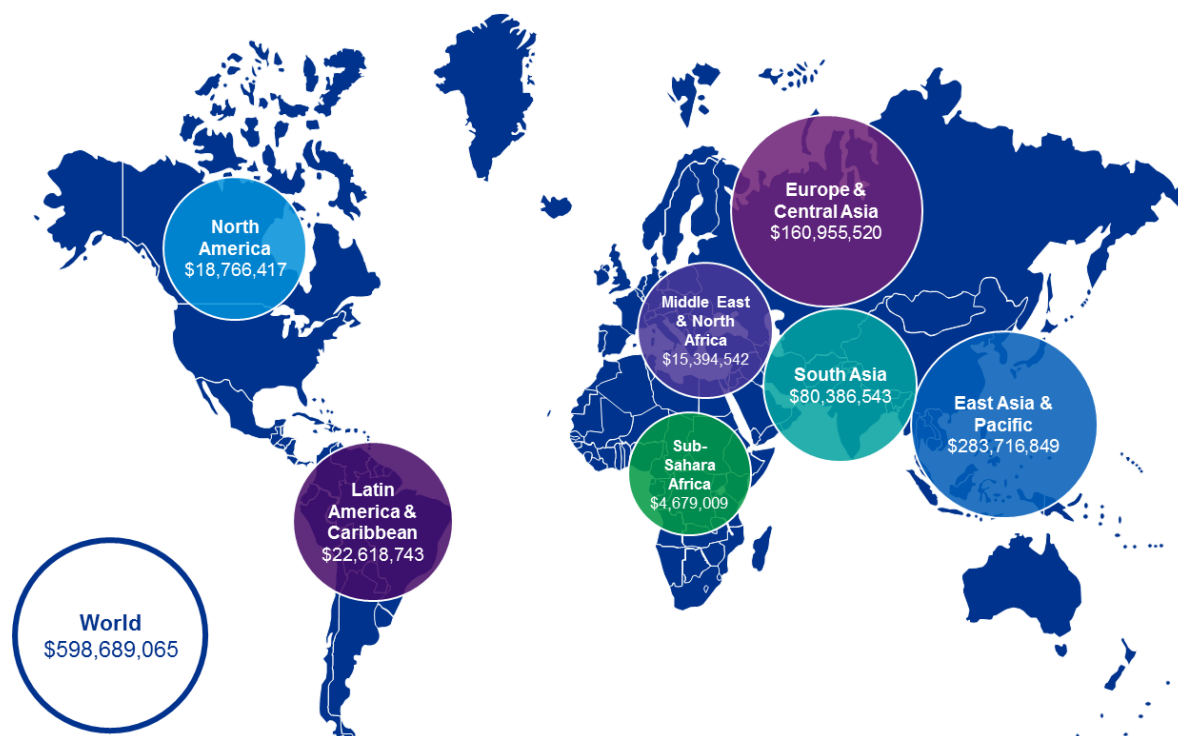
Appendix:

Opportunities for SDG implementation in key countries



Opportunities for SDGs implementation in key countries

2016 Global Clothing and Textiles imports by region



Source: World Textiles and Clothing Imports by Region, World Integrated Trade Solution (WITS)

Country Spotlights

Successful implementation of shared value opportunities requires approaches that are tailored to local contexts. The following section focuses on key countries in Asia—Indonesia, India, Bangladesh, and Vietnam—with the largest global clothing and textiles imports based on 2016 data. It includes a review of opportunities for SDG collaboration in these priority sourcing countries. Below are a few trends identified as part of this review:

- Host governments recognize the need for multi stakeholder partnerships, particularly with the private sector
- SDGs have been built into long term socio-economic development strategies that specifically mention the textile and manufacturing sectors
- Lack of quality data to track progress on the SDGs continues to be a challenge for many developing countries
- Governments seek to “localize” SDG implementation by working closely with counterparts at the state and municipal levels

According to the 2017 UN Economic and Social Commission for Asia and the Pacific report, progress towards SDGs in the Asia and Pacific is uneven and needs to be scaled up substantially, particularly on SDG 8: reducing inequality¹⁴³. The following section highlights relevant programs, stakeholders and partnerships in these countries to help companies in the sector contextualize their SDG approach. China is used as a baseline given that it is a leading textile producer and has a history of successfully implementing the Millennium Development Goals.

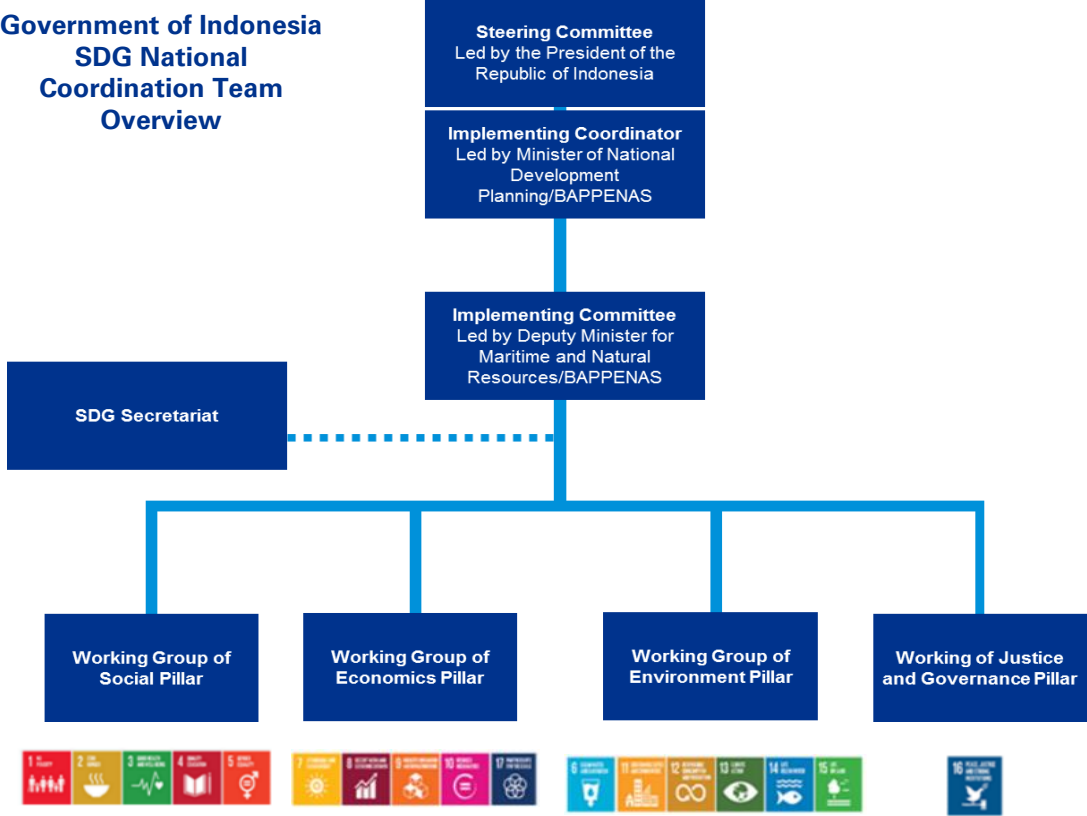
SDG Readiness – Change Readiness Index Mapping Guide

SDG Target	Change Readiness Index Indicators
 <p>SDG 5: Achieve gender equality and empower women and girls</p>	<ul style="list-style-type: none"> — Health — Gender — Inclusiveness of growth
 <p>SDG 6: Ensure availability and sustainable management of water and sanitation for all</p>	<ul style="list-style-type: none"> — Health — Transport and utilities — Enterprise sustainability
 <p>SDG 7: Ensure access to affordable, reliable sustainable and modern energy for all</p>	<ul style="list-style-type: none"> — Enterprise sustainability — Food and energy security — Technology infrastructure
 <p>SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p>	<ul style="list-style-type: none"> — Labor markets — Technology infrastructure — Innovation, research and development
 <p>SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</p>	<ul style="list-style-type: none"> — Technology infrastructure — Innovation, research and development — Entrepreneurship
 <p>SDG 10: Reduced inequality within and among countries</p>	<ul style="list-style-type: none"> — Public administration and state business relations — Labor markets — Safety nets
 <p>SDG 12: Responsible consumption and production – ensure sustainable consumption and production patterns</p>	<ul style="list-style-type: none"> — Innovation, research and development — Food and energy security — Enterprise sustainability
 <p>SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</p>	<ul style="list-style-type: none"> — Environmental sustainability — Enterprise sustainability — Land rights

Indonesia

Sector Highlights

- Indonesia is one of the world's top ten textile and garment exporters, but currently only captures two percent of the global textile market¹⁴⁴. The country shows signs of strong growth, driven in part by steady domestic and export demand for the country's textile and garment products, and a growing workforce of two million people.
- The textile and garment sector is identified as a priority industry in the Master Plan of National Industry Development (RPIN) 2015–2035¹⁴⁵. In 2017, the government set a target to increase export value to \$75 billion by 2030 or 5 percent of global exports, up from \$12 billion today¹⁴⁶.
- Rising labor costs in China have increasingly prompted companies to move elsewhere in the region, including to Indonesia which also enjoys an expansive labor force and a domestic economy with a growing middle class¹⁴⁷.
- Indonesia's 2017 Voluntary National Review (VNR) of the SDGs specifically identified circular economy as a way to improve resource efficiency and reduce pollution in line with the SDGs. In line with this commitment, it has expressed the need for policies to encourage circular economy that ensures sustainable consumption and production is implemented in the business cycles and business processes. However, also acknowledged is the need to change community behavior towards sustainable consumption and production¹⁴⁸.

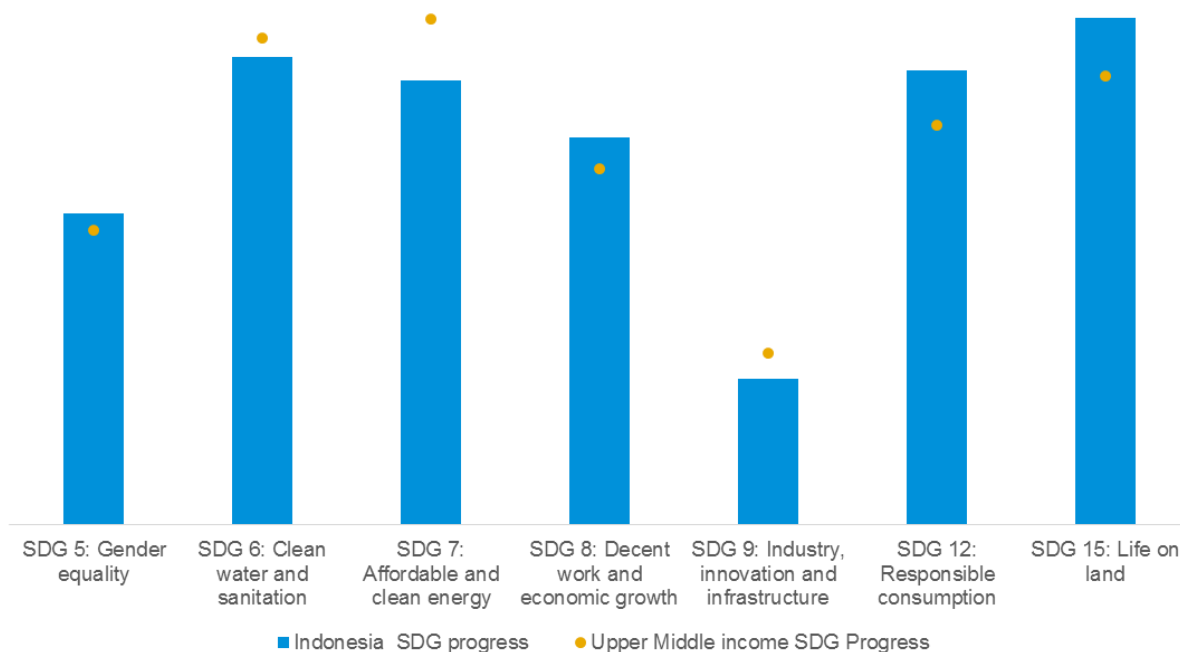


- These goals are echoed in Indonesia’s RPIN 2005–2025 and the National Medium Term Development Plan 2015-2019, which emphasize the need to build on human capital, enhance economic opportunities for sustainable livelihood.
- A number of challenges hamper public and private sector efforts to ramp up manufacturing in Indonesia. The sector is largely underdeveloped requiring heavy reliance on foreign imports of raw materials, as well as much needed investment, technology and expertise. The country is one of the world’s largest cotton importers, with 99.2 percent of raw cotton met by imports from the US, Brazil and Australia. In addition, 80 percent of other raw materials such as dyes, yarns and silks are also imported, which make upstream textile industry vulnerable to fluctuating global prices¹⁴⁹.
- Energy costs account for 24–30 percent of the sector’s production costs, and dampen regional competitiveness. Additionally, many local manufacturers continue to use inefficient technology which reduces productivity and competitiveness. According to the Indonesian Textile Association, of more than 4,100 textile companies, at least 774 (18.87 percent) need to replace old machinery—amounting to roughly \$5 billion to \$6 billion. Other issues include high operating costs, operational inefficiencies, lack of competitiveness and poor marketing.

Opportunities for Collaboration on the SDGs

- There are positive signs by the Government of Indonesia with respect to closing these SDG gaps. In July 2017, President Jokowi Widodo signed Presidential Decree no 59/2017 which formally linked SDG targets and indicators to the National Medium Term Development Plan 2015-2019 (RJPMN) and tasked the Ministry of National Development Planning (BAPPENAS) with implementing the agenda at the national and sub national levels in coordination with other relevant Ministries¹⁵⁰.
- The decree also established a national coordination team chaired by the President, and a coordinating function led by the BAPPENAS through four working groups focused on social, economics, environment and governance pillars. The decree required local governments to adopt a local action

Indonesia SDG Progress



plan by July 2018 and further integrate the SDGs into the next generation of local medium-term development plans¹⁵¹.

- Indonesia performed well as a lower middle income country in terms of SDG implementation progress (refer graph above). It outperforms upper middle income countries in four out of the eight SDGs we identified in this report as key to the textile sector. The Government's efforts to localize the SDGs however present an opportunity to expand progress on the SDGs, particularly around SDG 7: Affordable and clean energy, SDG 9: Industry, innovation and infrastructure.
- In Riau province, the government piloted an approach through the provincial development planning agency (BAPPEDA), UNDP and the Tanoto Foundation to assess and socialize opportunities for localization of the SDGs, establish a data collection plan, and deploy needed technical assistance to districts.
- The pilot focused on creating awareness of the SDGs, establishing a local provincial secretariat, and setting up a local steering committee comprised of local philanthropy, private sector, civil society and academia, and resulted in the identification of poverty, education and environment as co-identified local priorities¹⁵². As of December 2017, the pilot is in its first stage of implementation in three provincial districts.
- Given the priority status of the textile and apparel sector, companies in this industry are strategically positioned to participate in similar localization initiatives across the country. For example, brands have the opportunity to leverage relationships with supplier networks across the country to co-design and scale partnerships with BAPPEDA, national working groups, and local counterparts focused on SDGs where there is the biggest need for collaboration.

SDG readiness: Indonesia and China



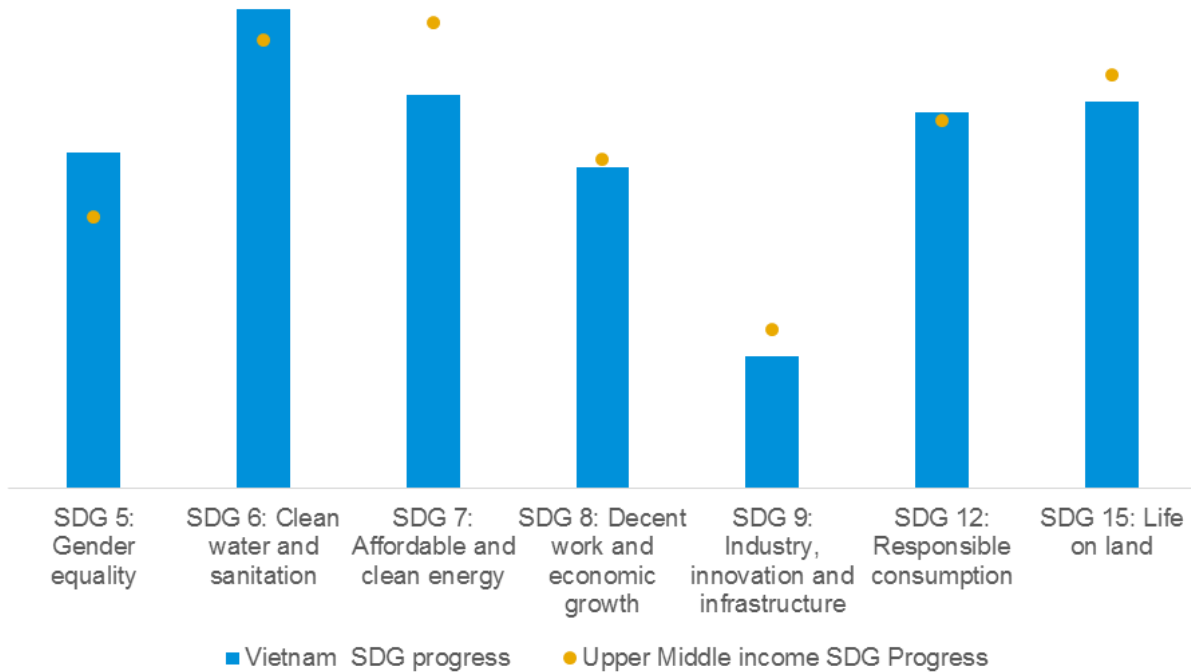
Vietnam

Sector highlights

- Vietnam is aggressively developing its textile industry as part of a strategy to modernize its economy by 2030. In 2016, Vietnam was recognized as the top third garment exporter in the world—trailing China and Bangladesh, respectively. Apparel accounts for 16 percent of the country’s total exports and the country now occupies 3.62 percent of global textile market share, double that of Indonesia and approaching that of Bangladesh’s share of 4.05 percent¹⁵³. Further, its domestic market is also fueled by a growing, urbanizing middle class and young consumers, gaining a year on year growth rate of 10 percent in 2017¹⁵⁴.
- Despite the turbulent Trans-Pacific Partnership (TPP)¹⁵⁵ negotiations in 2017, Vietnam’s textile and garment industry exceeded its 2017 target of \$30 billion with exports of over \$31 billion, an increase of 10.23 percent on the prior year. The Ministry of Industry and Trade seeks to grow this even further, aiming for \$36-38 billion in exports by 2020 and \$64–67 billion by 2030¹⁵⁶.
- Human capital is critical to achieving these targets. Today, Vietnam has 6,000 textile and garment manufacturing enterprises with over 2 million employees, of whom 1.3 million or 65 percent are working directly in the industry¹⁵⁷. For every \$1 billion increase in exports, an estimated 100,000-200,000 new jobs in the sector are created¹⁵⁸. Overall, the country’s efficiency and productivity in textile manufacturing are higher than Indonesia and are supported by lower energy prices, a young workforce, newer machinery, and longer working hours of 48 hours (compared to Indonesia’s 40 hours a week). However, like Indonesia, Vietnam is also grappling rising electricity, transportation, and wage costs. Investments to build capacity in business management, design, and labor productivity are needed increase the diverse, high value products needed to meet its 2030 export targets.
- Similar to Indonesia, Vietnam also relies heavily on imported raw materials to support its garment industry, with 50–60 percent of the raw materials coming from China¹⁵⁹. Only two to three percent of cotton used in Vietnam’s textile industry is domestic¹⁶⁰. The government is seeking to rectify this by increasing cotton fiber production 30,000 tons by 2030, up from 8,000 today, while concurrently managing environmental goals around minimizing outputs of textile dyeing and weaving plants. To do so, Vietnam is expanding programs to build irrigated cotton growing areas to increase productivity and quality of cotton fiber in the country¹⁶¹. Companies seeking higher take up of organic cotton can seize this nascent market to encourage farmers to adopt sustainable farming methods.
- Vietnam’s 2018 Voluntary National Review (VNR) of the SDGs specifically notes that “To orient consumption towards sustainability, [it] has applied economic tools such as natural resource taxes on mineral mining and water resources, an environmental protection tax and environmental protection fees on waste water.”

Opportunities for Collaboration on the SDGs

Vietnam SDG Progress



- Based on the SDG progress shown above, Vietnam outperforms upper middle income countries on SDG 5: Gender equality, SDG 6: Clean water and sanitation, and SDG 12: Responsible consumption. Over 80 percent of the workforce in Vietnam is female, mostly young and mostly migrants from rural areas making the garment manufacturing sector a major force for national socio-economic development in Vietnam¹⁶². The implementation gaps are the largest for SDG 9: Industry, innovation and infrastructure, and SDG 7: Affordable and clean energy. These areas represent a potential opportunity for partnership between the textile sector and the Government given that manufacturing and agricultural modernization as seen as priorities in the Government's 2030 industrial development strategy.
- In 2017, the Vietnamese Prime Minister announced a National Action Plan (NAP) for the Implementation of the 2030 Sustainable Development Agenda. The NAP aligns sustainable development with Vietnam's broader economic strategy, and assigns SDG-specific tasks to key ministries and agencies.

SDG readiness: Vietnam and China



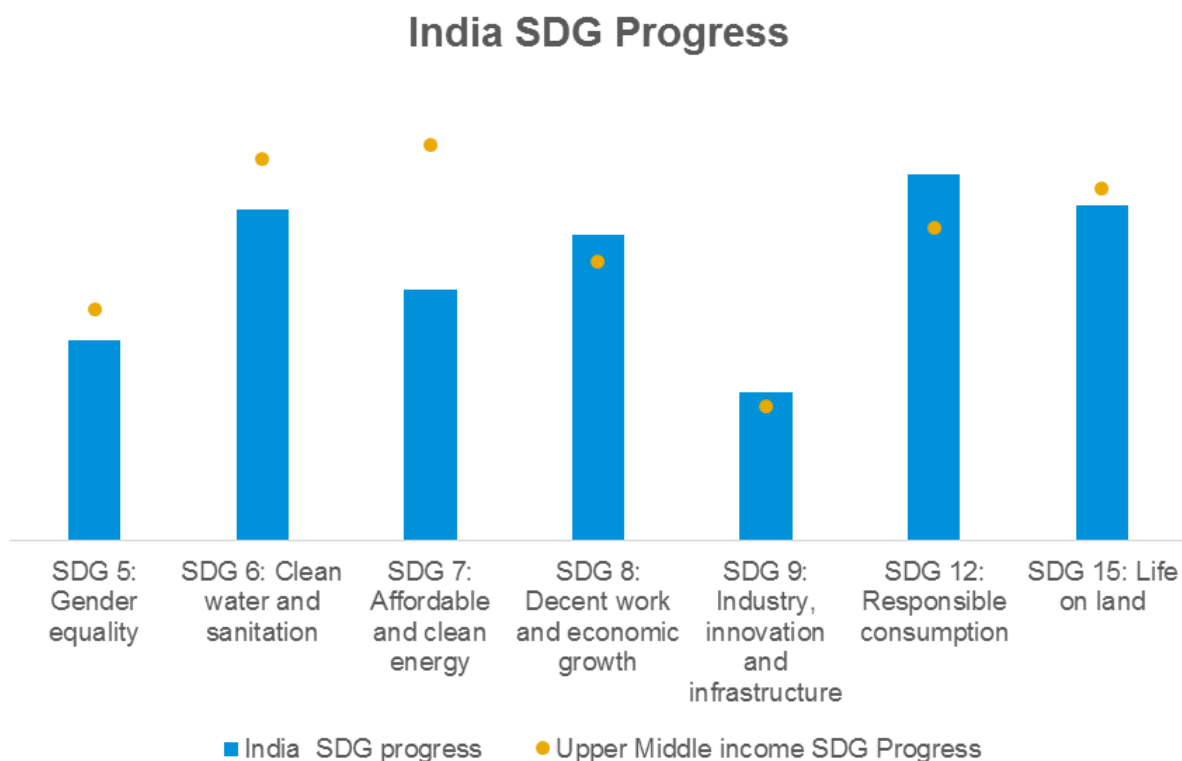
- According to the NAP, Vietnam is seeking to complete action plans for ministries, localities, agencies and organizations by the end of 2018¹⁶³. The Ministry of Planning and Investment is responsible for coordinating the implementation, monitoring and reporting on the SDGs. This includes preparing and issuing guidelines for implementation, and regulations around oversight, monitoring and evaluation across ministries.
- The NAP also seeks to mainstream the SDGs into the Socio-Economic Development Strategy 2021–2030. Relevant priority areas for the textile industry include the emphasis on human capital development, strengthening of research and development with a focus on renewable energy technologies, and partnerships to mobilize financial resources for SDG implementation.
- A focus on monitoring and reporting undergirds these efforts – the NAP requires ministries, local agencies and cities to prepare annual reports on SDG implementation for submission to the Ministry of Planning and Investment in order to provide period reports to the United Nations. Companies in the sector can leverage the NAP Plan as a framework to engage Ministries tasked with implementing SDGs relevant to the sector.

India

Sector highlights

- In India, the textiles sector has historically been a significant contributor to the country's economy. In 2018, it accounts for approximately 13 per cent of total exports, makes up 10 percent of the country's manufacturing production, between two to five percent of GDP, and directly employs about 45 million people¹⁶⁴.
- India's overall textile exports during the 2015–2016 fiscal year was \$40 billion. However, India's textile exports are expected to miss the \$45 billion 2018 target as the industry adjusts to the Goods and Services Tax roll out and tariff advantages enjoyed by competitors like Bangladesh and Vietnam¹⁶⁵.
- Unlike Indonesia, there are close linkages between the textile industry and agriculture (for sourcing raw materials such as cotton). The production of cotton in India is estimated to increase by 9.3 per cent year-on-year to reach 37.7 million bales in FY 2017–18. The total area under cultivation of cotton in India is expected to increase by 7 per cent to 11.3 million hectares in 2017–18, on account of expectations of better returns from rising prices and improved crop yields during the year 2016–17.
- The Indian textiles industry is extremely varied and is divided into two broad segments:
 - Unorganized or traditional sector which comprises handloom, handicrafts and sericulture, all of which are operated on a small scale and through traditional tools and methods.
 - Organized or mechanized sector consisting of spinning, apparel and garments segment which apply modern machinery and techniques such as economies of scale.
- To boost competitiveness in these two sectors, the Government has introduced a number of initiatives and reforms under the Make in India Campaign to promote the sector including duty rewards to eligible textile and apparel categories, an interest equalization scheme on pre and post shipment rupee export credit for five years for Indian exporters competing with countries like Vietnam, and lowered basic customs duty¹⁶⁶.
- The Government of India has also launched several initiatives to encourage foreign and domestic investment, while building capacity for local small and medium enterprises. For example, the Integrated Processing Development Scheme has provided \$61.42 million (INR 419 crore) to 3000 small and medium enterprises to encourage the development of common effluent treatment plans with compliant treatment technology. It is in the process of implementing a \$152.17 million (INR 1038.10 crore) North East Region Textile Promotion scheme to promote employment and encourage entrepreneurship in women in the garment sector¹⁶⁷.
- It has also funded six Focus Incubation Centers totaling \$2.55 million (INR 17.4 crore) to support entrepreneurs develop and scale textile products in composites, non-woven and coated textiles, medical textiles, packaging, and other areas.
- Finally, the Government of India plans to introduce a mega package for the power-loom sector, which will include social welfare schemes, insurance coverage, cluster development, and upgrading of obsolete looms, along with tax benefits and marketing support, which is expected to improve the status of power loom weavers in the country.

Opportunities for SDG Collaboration



- SDG 5: Gender Equality and SDG 7: Affordable and clean energy, and SDG 6: Clean water and sanitation emerge as the implementation gaps for India. The Government focus on workforce development and vocational training however provide companies in the sector an opportunity to collaborate on co-designing programs and curriculum for the shared benefit of preparing the Indian workforce for gainful employment, while building a pipeline of talent for the textile industry – which has been identified as a priority sector.
- The Indian workforce grows by 17 million a year, yet only 5.5 million jobs are created annually¹⁶⁸. In response to this need, the Government of India has identified workforce development and training as a priority, establishing the National Skill Development Corporation (NSDC) as a public private partnership company to catalyze the skills landscape. The NSDC partners with multiple stakeholders including the private sector through a variety of skills certification, employment generation and “sector skills councils¹⁶⁹.”
- Overall employment needs in the textile and clothing sector are expected to rise to 60 to 62 million by 2022, according to the Ministry of Textiles¹⁷⁰. Partnering with the NSDC along with universities, state governments and others to create jobs in the textile sector aligns the business need for employee training with the broader employment needs. Additionally, collaboration may uncover opportunities to leverage Government’s investments in entrepreneurship and innovation under the Make in India campaign to develop needed technologies to address industry needs such as the uptake of recycled materials.¹⁷¹
- India is also facing tremendous challenges around water scarcity. In 2015, 54 percent of the country faces high to extremely high water stress, meaning that more than 40 percent of the annually available surface water is used annually¹⁷². Fifty-four percent of India’s groundwater wells are also declining across the country, a trend already affecting farmers in arid areas. Partnerships with the textile sector geared towards reducing water footprints, particularly in highly stressed areas could

serve to align corporate efficiency targets with the country's broader needs. With a population expected to reach 1.7 billion by 2050, a rapidly growing middle class, commercial demands, and a lack of a centralized strategy, a lack of action today will exponentially cost companies in the near future.

SDG readiness: India and China



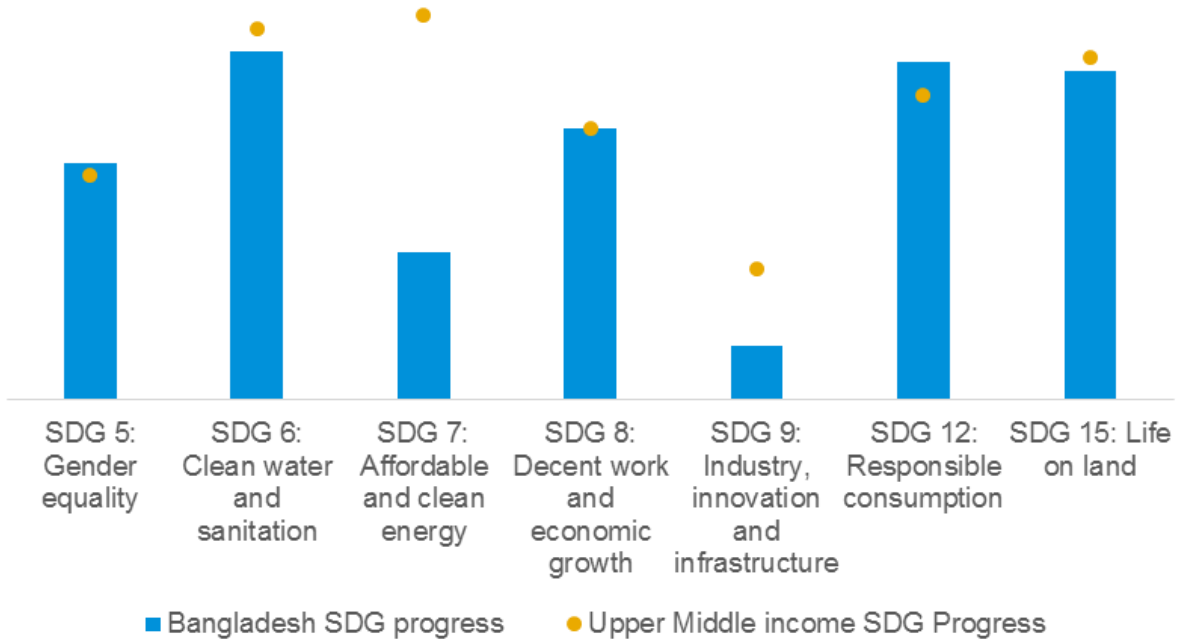
Bangladesh

Sector highlights

- Bangladesh's garment industry earned \$28.6 billion in 2016 and remains a key driver of the country's economic growth at 20 percent of GDP¹⁷³. Second only to China as a global textile exporter, the industry employs 3.6 million workers in roughly 4,500 factories mostly located in the capital, Dhaka¹⁷⁴.
- Additionally, the Government of Bangladesh seeks to export \$50 billion in apparel by 2021, but faces similar roadblocks to Indonesia and Vietnam in terms of its heavy reliance on exported cotton. To date, local cotton production only meets 1 percent of market demand while 46 percent of total cotton is imported from India which makes the sector vulnerable to price volatility. Diversification of cotton sources including from the US, Latin America, and Africa is seen as a sectoral priority^{175 176}.
- Other ongoing issues are the gaps in worker safety and empowerment. Five years after the Rana Plaza collapse in 2013—one of the deadliest disasters in the garment industry—killed more than 1,130 people and injured thousands more, Bangladesh's garment industry, government and international brands sourcing from local factories continue to seek improvements to make factories and working conditions safer for employees.
- Two major initiatives—the *Accord on Fire and Building Safety* and the *Alliance for Bangladesh Worker Safety*—were established following the Rana Plaza incident by global brands and retailers, trade unions and their local affiliates, and ILO. The first phase of the program focused on building and fire safety assessments; labor inspection reforms; awareness on occupational safety and health (OSH); rehabilitation and skills training for Rana Plaza survivors and the launch of Better Work Bangladesh—a partnership between the ILO and the IFC. Phase two of the Accords will thus focus on four strategic areas which include ensuring factory safety through remediation; governance building to effectively regulate industrial safety and support labor inspection reform; improving OSH in both policy and practice; and expansion of Better Work Bangladesh to ensure compliance in at least 400 ready-made garment factories¹⁷⁷.
- These initiatives were extended in May 2018 after the group determined that the Government of Bangladesh have not met the much needed criteria agreed upon by a joint Transition Monitoring Committee needed to transition the initiatives into government hands. These criteria include demonstrated proficiency in inspection capacity, remediation of hazards, enforcement of the law for non-compliant factories, full transparency of governance and remediation progress, and investigation and fair resolution of workers' safety complaints¹⁷⁸.
- Beyond the Rana Plaza incident, the ILO estimates that over 11,000 workers suffer fatal accidents and a further 24,500 die from work related diseases across all sectors each year in Bangladesh¹⁷⁹. In the textile sector specifically, structural fixes have been accelerated by high profile programs such as the Accords, yet there are ongoing needs around training and empowering workers. The Better Work program is particularly active in Bangladesh where it provides guidance and advice on factory improvements to help enterprises grow profits while respecting workers' rights. Better Work functions as a package of ILO initiatives, including the two initiatives above funded by Canada, the Netherlands and the United Kingdom.

Opportunities for Collaboration on the SDGs

Bangladesh SDG Progress



- Based on Bangladesh's SDG progress, the ability to implement SDG 7 represents the largest gap compared to its income group. SDG 9: Industry, innovation and infrastructure is a close second and poses an opportunity for collaboration for companies in the sector as the Government seeks to move up the value chain in terms of textile production.

SDG readiness: Bangladesh and China



- Bangladesh has incorporated the SDGs into its Five Year plan for 2016-2020, with implementation monitored by a SDGs Implementation and Monitoring Committee housed in the Prime Minister's Office. The Bangladesh Planning Commission estimates that an additional \$928 billion is needed to fully implement the SDGs¹⁸⁰.
- The Government has also mapped out lead, co-lead and associate ministries against each SDG target in order to enhance synergy. In addition, it has represented the need to engage stakeholders in the private, civil society and other sectors to enhance implementation.
- However, complete data is available for less than 30 percent of the SDG indicators¹⁸¹. Given the significance of the textile industry for Bangladesh's economy, companies in the sector have an opportunity to support the development of national monitoring and evaluation frameworks against SDG targets most relevant to the sector. The Government is in the process of developing these frameworks, including a results-based performance management system known as the Annual Performance Agreement.
- Other challenges for implementation include the mobilization of finance, establishing partnership models that engage key stakeholders, and the localization of SDGs through integration into local development plans.

Other key regions

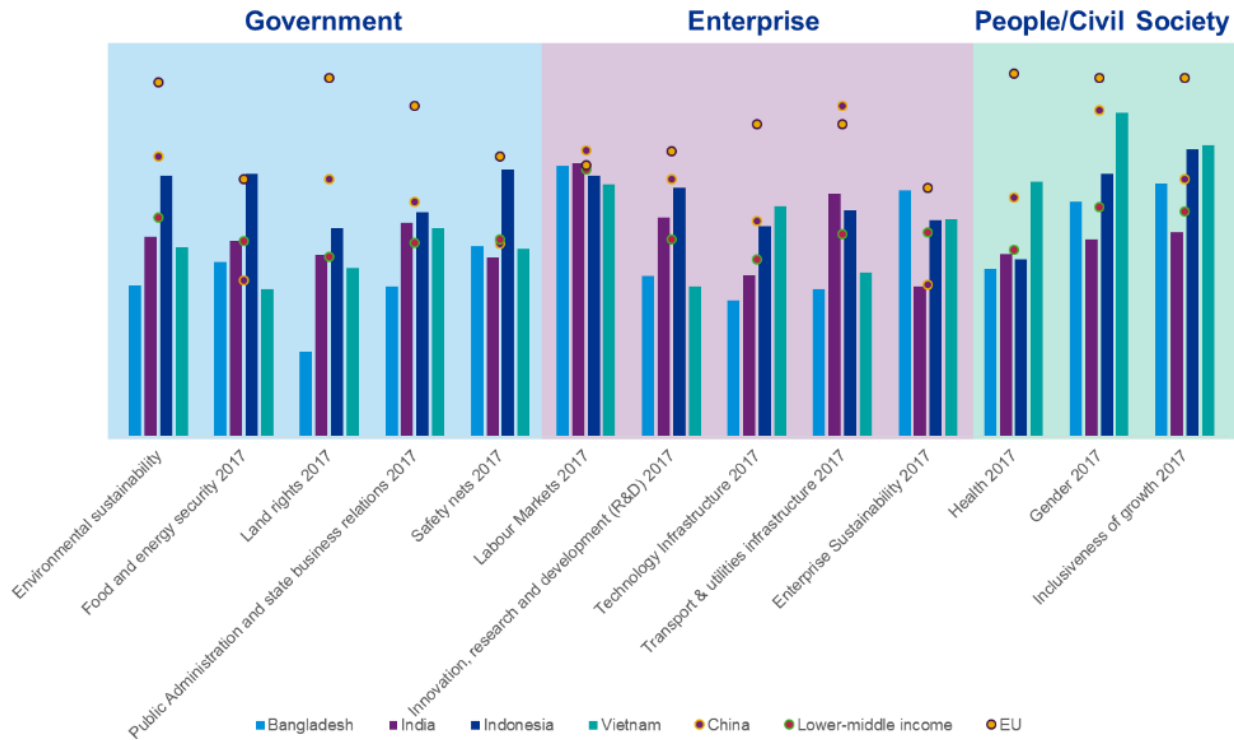
Beyond the countries discussed above, companies are increasingly looking at other emerging regions to complement their sourcing portfolio. As shown by the graph below, these regions have varying degrees of capacity to implement SDGs relevant to the industry and pose unique opportunities for companies operating in these regions. For example, competitive labor costs, proximity to raw materials, and working populations that are among the world's youngest have positioned Africa and Latin America in recent years as two of the world's fastest growing producers of apparel. The textile and apparel markets in Africa and Latin America are currently valued \$31 and \$160 billion, respectively^{182,183}. Spending on clothing and footwear in Latin America is expected to surpass \$220 billion by 2021¹⁸⁴ as the region's middle class continues to expand. Meanwhile, a number of African countries face interregional trade barriers and a pervasive second-hand clothing market that stifles domestic production.

The SDGs also apply to developed countries that face a different set of challenges and opportunities. In the European Union (EU), where textiles and clothing employs 1.7 million people and consumption per capita remains one of the highest in the world for textiles, the environmental impacts are concentrated on materials usage and production¹⁸⁵. Italy, one of the EU's top producers, is experiencing rapid change as a growing number of Chinese-run clothing factories purchased facilities from failing Italian businesses¹⁸⁶. Yet, despite increasing competition from newly industrializing countries, Italy's textile industry has continued to be an important contributor to the domestic economy largely due to the local industry's focus on quality. In developed contexts, investments in technology, product design and quality, service and distribution emerge as potential contributors to success.



Delving deeper: Change Readiness Indicators

KPMG’s 2017 Change Readiness Index allows companies to conduct a deep dive into the change drivers for SDG implementation. Understanding a country’s key strengths and opportunity areas for SDG implementation across government, enterprise and civil society is the basis of establishing an impactful partnerships across sectors. The graph below uses China, EU and lower middle income country’s change readiness scores as a benchmark for performance in CRI indicators relevant to the textile industry.



Source: KPMG 2017 Change Readiness Index

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