

SEKEM

DEVELOPMENT OF A STRATEGY,

A ROADMAP AND POLICY RECOMMENDATIONS TO SET
SUSTAINABLE TEXTILE AND CLOTHING INDUSTRY

ARAB REPUBLIC OF EGYPT

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SUMMARY

The sustainable textile sector in Egypt faces significant challenges and obstacles but also presents numerous opportunities for growth and innovation. The sector is subject to a complex regulatory framework, which presents both advantages and limitations for circular textile businesses. Additionally, the sector must contend with issues such as hazardous chemical use, textile waste, and energy consumption, among others.

This policy paper provides a comprehensive overview of the sustainable textile sector in Egypt, including an examination of existing regulations and initiatives, as well as tailored recommendations for SMEs, startups, and the government. The paper also reviews the main stakeholders in the market and provides relevant statistics and data on the sector, including its size and scope.

Despite the challenges, the sustainable textile sector in Egypt is positioned to benefit from growing demand for sustainable products and services, as well as increased interest from private sector organizations and investors. By implementing the recommendations provided in this report, stakeholders in the sector can help to drive growth, innovation, and sustainability in the years to come.



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POLICY PAPER STRUCTURE

The StandUp! Policy Paper of Egypt was designed on a number of main points, interlinked together. The objective is to give a good overview of the sustainable textile ecosystem in Egypt (drivers, size of the market, problems and challenges, main players and stakeholders...), in addition to proposing a set of tailored recommendations for multiple actors. The paper is structured as follow:

INTRODUCTION: An overview of the sustainable textile sector in Egypt, including its current status, promises and opportunities.

REGULATORY FRAMEWORK & INITIATIVES: A discussion of existing circular economy regulations and initiatives affecting circular textile businesses in Egypt, including their impact and effectiveness.

CHALLENGES AND OBSTACLES: A detailed discussion of the challenges and obstacles facing the sustainable textile sector in Egypt, including environmental, economic, and social factors.

STAKEHOLDERS AND MARKET OVERVIEW: A review of the main stakeholders in the sustainable textile sector in Egypt, including producers, manufacturers, cooperatives, federations, and private sector organizations. An overview of the size and scope of the market is also included. This former will be further elaborated within the next point, Statistics.

STATISTICS AND DATA: Relevant statistics and data on the sustainable textile sector in Egypt, including energy consumption, waste generation, market size, import and export budgets, and investments. It reflects the size and importance of the sector in Egypt at socio-economic level.

RECOMMENDATIONS: Tailored recommendations for SMEs, Startups, and the Egyptian Government to address the aforementioned challenges and obstacles facing the sustainable textile sector in Egypt.

FUTURE OUTLOOK AND OPPORTUNITIES: A discussion of future goals through decarbonization and potential opportunities for growth and innovation in the sustainable textile sector in Egypt.

CONCLUSION: This section is an important part of the report as it brings together the main findings and recommendations of the study. It summarized the main points and emphasized the key messages of the report.

REFERENCES: A list of sources cited in the report.

ANNEXES: as stated inside the concept note, a series of workshops and interviews will be conducted with relevant stakeholders in Egypt. The policy report proposes a set of relevant questions for both the interviews (**Annex I**) and the workshops (**Annex II**).

INTRODUCTION



The sustainable textile sector in Egypt has the potential to drive economic growth and job creation while contributing to environmental sustainability. However, the sector faces several challenges to be sustainable and “green”, including high levels of water consumption and textile waste, and the use of hazardous chemicals in production. To address these challenges, stakeholders in the sector should prioritize sustainability and collaborate to develop innovative solutions. This report identifies the main challenges and opportunities in the sector, and provides a roadmap for stakeholders to transition towards a more sustainable, circular economy.

The policy paper outlines a comprehensive sustainability framework that addresses key issues in the sector, including water and energy use, textile waste, and hazardous chemicals. The framework recommends the adoption of circular economy principles, including green public procurement, process control in manufacturing, and energy efficiency. The paper also provides tailored recommendations for SMEs, startups, and government stakeholders in the sector. By implementing these recommendations, the sustainable textile sector in Egypt can create a more favorable policy environment, encourage greater innovation and investment, and build a more sustainable industry for the future.

The sustainable textile sector in Egypt is poised for growth, but faces significant challenges in achieving environmental sustainability while driving economic development. Despite these challenges, there are a number of opportunities to build a more sustainable and profitable industry in Egypt, while protecting the environment and creating new jobs.

In order to outline a comprehensive strategy for transitioning towards a more sustainable, circular economy in the textile sector, building on existing initiatives and regulations are needed to be analyzed.

The key negative aspects of the sustainable textile ecosystem that should be considered in any future strategies are:

Water and Energy Use: The textile sector is a major consumer of water and energy, with significant potential for savings through more efficient production processes and improved management of water and other resources. The policy paper recommends greater investment in research and development, as well as collaboration between various stakeholders in the sector to identify best practices and implement more sustainable technologies.

Textile Waste: The production of textiles generates significant amounts of waste, much of which is not recycled or repurposed. The paper recommends a greater emphasis on circularity principles, such as the use of recycled materials and extended producer responsibility programs, to reduce textile waste and improve the overall sustainability of the sector. Furthermore, such recycled materials could be of added value to the smallholders and producers, which would reflect on, besides the environmental, more positive socio-economic impact.

Hazardous Chemicals: The use of hazardous chemicals in textile production poses significant risks to workers and the environment. The policy paper recommends the adoption of more sustainable and safer chemical alternatives, as well as greater regulation and monitoring of chemical use in the sector. Such consideration will have a positive reflect on the healthiness of the working environment.



All these aspects are linked/aligned with different UN-2030 Agenda and its Sustainable Development Goals (SDG), such as **SDG-7** “Ensure access to affordable, reliable, sustainable and modern energy for all”, **SDG-9** “Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation”, **SDG-12** “Ensure sustainable consumption and production patterns”, **SDG-14** “Conserve and sustainably use the oceans, seas and marine resources for sustainable development”

To achieve these goals, and others, the policy paper offers a roadmap for stakeholders in the sector, including SMEs, startups, and government agencies. This includes a focus on collaboration, investment in research and development, and greater emphasis on circular economy principles. By implementing these recommendations, the textile sector in Egypt can build a more sustainable and profitable industry, while contributing to the country's economic development and environmental sustainability goals.

REGULATORY FRAMEWORK - INITIATIVES



Circular economy is an important concept in the textile industry in Egypt. The circular economy regulations and initiatives aim to reduce waste and minimize environmental impact through sustainable production and consumption practices. Some of the main aspects to be taken into account in the circular textile businesses in Egypt include water and wastewater management, hazardous chemical use and management, textile waste management, hazardous waste management, green public procurement, process control, and energy efficiency.



One of the main circular economy initiatives in Egypt is the "**Egypt Vision 2030**" plan, which includes the "*National Solid Waste Management Program*" aimed at reducing waste and promoting sustainable waste management practices. The plan also includes the "*Sustainable Development Strategy: Egypt Vision 2030*," which aims to promote sustainable production and consumption practices and reduce environmental impacts.



The Ministry of Environment in Egypt has also launched several initiatives to promote circular economy practices in the textile industry. One of these initiatives is the "*Green Textile Initiative*," which aims to reduce the environmental impact of textile production through sustainable practices, such as reducing water and energy consumption, using eco-friendly chemicals, and promoting the use of recycled materials.

In addition to these initiatives, there are also regulations in place in Egypt to address environmental issues in the textile industry. For instance, the *Egyptian Environmental Law (Law 4/1994)* requires textile businesses to comply with certain environmental standards, including managing hazardous waste, reducing water and energy consumption, and promoting sustainable practices.

When talking about sustainable textiles, it is essential to consider the whole value- and supply chain, starting from farming and the fields. Egypt has been implementing an **Organic Agriculture Strategy** since 2008, which aims to promote organic farming practices in the country. The strategy is led by the **Egyptian Ministry of Agriculture and Land Reclamation** and is supported by various international organizations such as the Food and Agriculture Organization (**FAO**) and the United Nations Development Program (**UNDP**). The objectives of the strategy are to increase the area of land under organic cultivation, improve the quality and productivity of organic crops, and promote the marketing of organic products both domestically and internationally. The strategy also aims to support small-scale farmers and promote sustainable agriculture practices.

Developing organic farming standards and regulations: The **Ministry of Agriculture and Land Reclamation** has developed standards and regulations for organic farming in Egypt. These regulations cover all aspects of organic farming, including soil management, crop cultivation, animal husbandry, and processing and marketing of organic products. The Ministry also provides technical assistance and training to farmers to help them adopt organic farming practices. This includes training on soil management, crop cultivation, pest management, and marketing of organic products. At another part of the supply chain, the Egyptian government has established a certification process for organic products to ensure that they meet the required standards and regulations. Finally, at the end of the value chain, the Ministry of Agriculture and Land Reclamation promotes the marketing of organic products by providing support for marketing activities, including participation in trade fairs and exhibitions. The strategy encourages research and innovation activities related to organic farming, including developing new organic farming technologies, improving soil fertility, and enhancing the quality and productivity of organic crops.

Now, let's take a specific example related to sustainable textiles "**Organic Cotton Production**". Egypt is one of the largest producers of cotton in the world, and there is a growing market for organic cotton in the textile industry.

Organic cotton is grown without the use of synthetic pesticides or fertilizers, making it an eco-friendlier option. Several Egyptian textile businesses have started using organic cotton in their production, and there is potential for further growth in this area.

The Egyptian Green Textile Initiative (EGTI): This is an Egyptian initiative that aims to promote sustainability in the textile industry. The initiative works with textile manufacturers to reduce the environmental impact of textile production and promote sustainable practices. The EGTI was launched by the United Nations Industrial Development Organization (UNIDO) in collaboration with the Egyptian Ministry of Trade and Industry, and other partners. The initiative aims to promote sustainable textile production in Egypt by introducing eco-friendly practices and technologies, promoting the use of sustainable materials, and enhancing the capacity of the textile industry to adopt sustainable practices. The EGTI focuses on three main areas: resource efficiency, pollution control, and social responsibility. It includes a range of activities, such as training and capacity building for workers and management, the development of sustainable production processes, and the promotion of sustainable materials, such as organic and recycled cotton. The initiative is also aiming to create a network of sustainable textile production in Egypt, by bringing together stakeholders from the textile industry, academia, and civil society to exchange knowledge and best practices, and to collaborate on joint projects.

Over years, **many strategic analytical reports**, prepared by Egyptian government and international organizations, examining the sustainable textile ecosystem in Egypt, such as:

"Sustainable Textile Production in Egypt: Opportunities and Challenges" (2019): This report by the United Nations Industrial Development Organization (UNIDO) provides an overview of the sustainable textile sector in Egypt, including statistics on energy consumption, water usage, and textile waste.

"Egypt's Textile Industry: A Struggle for Competitiveness" (2021): This report was developed by the World Bank (WB) and it provides an analysis of the textile industry in Egypt, including information on market size, export trends, and government policies. According to the report, the Egyptian textile industry, which is one of the most important sectors of the country's economy, accounts for a significant share of both exports and employment. The report highlighted the challenges facing the textile industry in Egypt, including increasing competition from other countries, particularly in Asia, and a lack of investment in modernizing the industry. The report also noted the importance of improving the quality of Egyptian cotton, which is a key input in the textile industry, as well as investing in research and development to improve product design and marketing.

"The State of Organic Cotton in Egypt" (2018): This report provides information on organic cotton production in Egypt, including statistics on the amount of organic cotton produced and the companies that are using it.

"The Role of Technology in Sustainable Textile Production" (2017): This report by the International Finance Corporation (IFC) provides information on how technology can be used to improve sustainability in the textile industry, including examples from Egypt and other countries. The report focuses on the use of technology to improve the sustainability of textile production, with a particular emphasis on reducing water and energy use, and improving waste management. The report provides an overview of the textile industry and its environmental impacts, including the significant water and energy use and the production of large amounts of waste. It also examines the potential for technology to improve the sustainability of the industry, including the use of automation, artificial intelligence, and data analytics to optimize production processes.

Additionally, the **Central Agency for Public Mobilization and Statistics (CAPMAS)** provides data on the textile sector in Egypt, which can be found on their website (www.capmas.gov.eg).

Overall, the sustainable textile sector in Egypt is facing challenges but also presents opportunities for growth and innovation. By working together and adopting sustainable practices, businesses in the sector can help to reduce their environmental impact and promote a more sustainable future.

STAKEHOLDERS AND MARKET OVERVIEW

A review of the main stakeholders in the sustainable textile sector in Egypt, including producers, manufacturers, cooperatives, federations, and private sector organizations. An overview of the size and scope of the market is also included. Here are main categories of the **key stakeholders** in the textile sector in Egypt (this list will be helpful for the upcoming interviews and workshops):



Egyptian Ministry of Trade and Industry: The Ministry of Trade and Industry is responsible for promoting and regulating industry in Egypt, including the textile sector. The Ministry is involved in developing policies and programs to support textile manufacturers and exporters, as well as facilitating trade agreements with other countries.

Egyptian Ministry of Environment: The Ministry of Environment is responsible for environmental regulation and policy in Egypt, including overseeing the management of waste and pollution in the textile industry.

Cotton and Textile Industries Holding Company: This is a state-owned holding company that manages a number of textile production facilities in Egypt, including spinning mills, weaving mills, and garment factories.

Garment Export Council: This is a non-profit organization that represents the interests of Egyptian garment exporters. The council provides support to garment manufacturers and exporters and also works to promote Egyptian textiles and apparel on the international market.

Better Cotton Initiative: This is an international organization that works to promote sustainable cotton production. The Better Cotton Initiative has a presence in Egypt and works with Egyptian cotton producers to promote sustainable farming practices.

The Export Development Bank of Egypt: This is a state-owned bank that provides financing and other services to exporters in Egypt. They provide financing to a range of textile exporters and also offer a range of other services such as trade insurance and market research.

These stakeholders are just a few examples of the many organizations and groups involved in the textile sector in Egypt. There are many other companies, associations, and government agencies that play a role in supporting and regulating the industry.

Cooperatives, Federations, and Non-Governmental Organizations (NGOs) can also be important stakeholders in the textile sector in Egypt. They can play an important role in promoting the interests of workers and small businesses in the textile sector, as well as supporting sustainable and equitable production practices. Here are a few examples:

The General Federation of Egyptian Trade Unions: This is a national trade union federation in Egypt that represents the interests of workers in various sectors, including the textile industry. The federation has a number of local branches and works to promote the rights and interests of workers in the textile industry and other sectors.

The Egyptian Textile and Clothing Export Council: This is a non-profit organization that represents the interests of textile and clothing exporters in Egypt. The council works to promote the interests of its members and provides a range of services to help companies expand their business and increase their exports.

The Handicrafts and Handmade Textiles Export Council: This is another non-profit organization that represents the interests of exporters in the textile sector, with a focus on handcrafted and artisanal textiles. The council works to promote the exports of handmade textiles and provides training and support to artisans and craftspeople.

Textile cooperatives: There are a number of textile cooperatives in Egypt that are owned and operated by the workers themselves. These cooperatives may be involved in spinning, weaving, or other aspects of textile production, and often provide a range of benefits to their members, such as job security and access to training and support.

The Sustainable Textile Group: This is an Egyptian organization that works to promote sustainable practices in the textile industry. They provide training and support to textile businesses on issues such as eco-friendly production methods, waste reduction, and ethical sourcing.

The Egyptian Textile Exchange: This is a non-profit organization that works to promote sustainability in the textile sector in Egypt. They provide networking opportunities, training, and resources to textile businesses on issues such as sustainable sourcing, water and energy management, and worker rights.

The Textile Exchange: While not specific to Egypt, the Textile Exchange is a global organization that promotes sustainability in the textile industry. They provide a range of resources and tools to help textile businesses improve their sustainability practices, including training, certification programs, and supply chain analysis.

The Private and Business Actors are also playing a key role in the textile industry in Egypt. Here are some examples of stakeholders in this sector:

Producers: This includes companies involved in the production of textile products, such as fabrics, clothing, and home textiles. Some of the largest textile producers in Egypt include El Nasr Clothing and Textiles, Delta Textile Egypt, and Oriental Weavers, and NatureTex-SEKEM.

Angel investors: These are individuals who provide capital to start-up businesses in exchange for an ownership stake. In the textile sector, angel investors may provide funding to new companies that are developing innovative products or technologies.

Venture capitalists: These are firms that invest in early-stage companies with high growth potential. Venture capitalists may invest in companies that are developing new textile products or technologies, or in companies that are seeking to expand their operations.

Sawari Ventures: This is a venture capital firm that invests in technology startups in Egypt and the MENA region. They have invested in a number of companies in the textile sector, including Fawry, which provides online payment services for textile retailers.

Incubation programs: These are programs that provide support to early-stage start-ups, including mentorship, training, and funding. Incubation programs can be particularly valuable to textile start-ups that may lack the resources or expertise to grow their businesses.

Flat6Labs: This is an incubation program that provides support and funding to early-stage startups in a range of industries, including textiles. They have provided support to a number of textile startups in Egypt, such as TARA, a sustainable fashion brand that uses organic and recycled materials.

Investors: These can include a range of entities, such as banks, private equity firms, and sovereign wealth funds. These investors may provide funding to established textile companies that are seeking to expand their operations or finance new projects.

Textile manufacturers: These are companies that produce textiles and textile products in Egypt. They may include large-scale manufacturers that produce goods for export, as well as smaller-scale manufacturers that produce goods for local markets.

Alghanim Industries: This is a Kuwait-based company that operates a number of textile manufacturing facilities in Egypt. They produce a range of textile products, including denim, yarn, and fabrics, and also operate retail stores in the region.

Textile retailers: These are companies that sell textiles and textile products to consumers. They may include traditional brick-and-mortar stores, as well as online retailers.

Souq.com: This is an online retailer that operates in Egypt and several other countries in the MENA region. They sell a range of textile products, including clothing, home goods, and accessories, and have a strong focus on sustainability and ethical production practices.

All of these stakeholders can play an important role in supporting the growth and development of the textile industry in Egypt, as well as promoting sustainability and social responsibility in the sector.

These organizations, along with others, are working to promote sustainable textile practices in Egypt and the wider MENA region.



Source: shutterstock.com

ROLE OF OTHER INDUSTRIAL SECTORS

- Agriculture sector:** Collaborate with the agriculture sector to promote sustainable farming practices for cotton cultivation. Share knowledge on organic farming methods, efficient water usage, and responsible pesticide use. This collaboration can ensure the availability of sustainably sourced raw materials for textile production.
- Energy sector:** Collaborate with the energy sector to promote the use of renewable energy sources in textile manufacturing. Explore partnerships to establish on-site renewable energy generation systems, such as solar panels or wind turbines, to power textile factories. This collaboration can help reduce greenhouse gas emissions and enhance the sector's sustainability.
- Chemical industry:** Partner with the chemical industry to develop and adopt eco-friendly and non-toxic chemicals for textile processing. Collaborate on research and innovation to find alternatives to hazardous chemicals and promote their use in textile production. This collaboration can contribute to reducing environmental pollution and improving the safety of workers.
- Fashion industry:** Collaborate with the fashion industry to promote sustainable and circular fashion practices. Share information on sustainable textile materials, design strategies, and waste reduction initiatives. Collaborate on initiatives such as clothing recycling programs or sustainable fashion events to raise awareness among consumers and promote sustainable textile consumption.



- **Waste management sector:** Collaborate with waste management entities to develop efficient systems for textile waste collection, recycling, and upcycling. Explore partnerships to establish textile recycling facilities or support existing facilities. This collaboration can help minimize textile waste and close the loop in the textile value chain.
- **Research and academia:** Partner with research institutions and academia to drive innovation and knowledge sharing in sustainable textile manufacturing. Collaborate on research projects focused on sustainable materials, manufacturing processes, and waste reduction. Engage in joint initiatives to develop sustainable textile technologies and share best practices.
- **Government and regulatory bodies:** Collaborate with government entities and regulatory bodies to align sustainability policies, regulations, and standards. Engage in dialogue and consultation processes to contribute industry insights and support the development of effective sustainability policies. Work together to establish monitoring and enforcement mechanisms for sustainable textile practices.
- **Financial institutions and investors:** Collaborate with financial institutions and investors to access funding, loans, or grants for sustainable textile initiatives. Engage in partnerships to develop financial mechanisms that incentivize sustainable investments in the textile industry. Collaborate on impact measurement and reporting to attract sustainable finance and demonstrate the sector's sustainability performance.
- **NGOs and industry associations:** Collaborate with NGOs and industry associations that focus on sustainable development and textile industry issues. Participate in joint projects, knowledge-sharing platforms, and industry events. Leverage the expertise and networks of these organizations to amplify sustainability efforts and promote collective action.

STATISTICS AND DATA



This section of the policy paper covers the relevant statistics and data on the sustainable textile sector in Egypt, including energy consumption, waste generation, market size, import and export budgets, and investments. It is important in the beginning to highlight that there is limited data available on the size and growth of the sustainable textile sector in Egypt, but here are a few relevant statistics and trends:

- ✚ **Think Globally first:** the global sustainable fashion market size was valued at **\$6.35 billion** in 2019 and is expected to reach **\$9.81 billion** by 2025, with a compound annual growth rate of **8.1%** (Source: Mordor Intelligence).
- ✚ **At Regional Level:** According to a report by the United Nations Economic and Social Commission for Western Asia (ESCWA), the MENA region generates more than **10 million tons** of textile waste per year, and this number is expected to increase due to population growth and urbanization. The sustainable fashion industry in the Middle East is still in its early stages, but there are a growing number of startups and businesses in the region that are focused on sustainable and ethical production practices (Source: Gulf News). Numbers suggest that there is significant potential for the sustainable textile sector in Egypt and other MENA countries to grow and develop, and that there is a need for greater awareness, education, and infrastructure to support sustainable production practices in the region.
- ✚ **For Egypt:** The Egyptian textile industry is the **2nd** largest employer in the country, after the agricultural sector, and contributes **3.6%** to the country's GDP (Source: Egyptian Ministry of Trade and Industry).

Size of the market: The textile market in Egypt is large and diverse, with a wide range of products including cotton, wool, silk, and synthetic fabrics. According to a report by the Federation of Egyptian Industries, the total value of textile exports from Egypt in 2020 was **\$836 million**, while the value of textile imports was **\$1.8 billion**.

Textile production by sector: The largest sector of textile production in Egypt is Spinning, followed by Weaving, Knitting, and Finishing, according to the Egyptian Ministry of Trade and Industry.

Investments: The textile industry in Egypt has attracted significant foreign investment in recent years, with companies from countries such as **China, Turkey, and Italy** investing in textile factories and production facilities in the country. In 2020, the Egyptian government announced plans to invest **EGP 45 billion** (approximately **\$2.8 billion**) in the textile industry to support its growth and modernization.

Employment: The textile industry is a major employer in Egypt, providing jobs for around **1.5 million people**, according to the Ministry of Trade and Industry.

Companies Structure: Textile & Clothing companies in Egypt are **3,500 - 6,500** in total. The majority of companies supply the domestic market, many in the informal sector, while **500-600** companies for export. Ginning, spinning and weaving companies are still dominated by large state-owned companies (**50-60%** are state-owned). **90%** of all clothing factories are private-owned (Readymade garments RMG Export Council 2019 and Egypt Textile Industry 2021). **80%** of the textile enterprises were established from 2000-2012 (UNIDO, 2018).

Geographical distribution of the industry: RMG and Tricot manufacturers are mainly located in Cairo & Alexandria, while Spinning and weaving is centered in Gharbeya, and Qualibhya mainly public sector companies

Cotton production: Egypt is one of the largest producers of long-staple cotton in the world, with approximately **320K tons** produced annually, according to the Central Agency for Public Mobilization and Statistics (CAPMAS).

Textile exports: According to the Egyptian Ministry of Trade and Industry, textile exports accounted for **3.7%** of the country's total exports in 2020.

Labor costs: Egypt has relatively low labor costs compared to other countries, which can make it an attractive destination for textile production. According to a report by the World Bank, the average manufacturing wage in Egypt in 2019 was **\$2.77 per hour**, compared to \$11.28 in China and \$22.34 in the United States. Salary costs for unskilled labor are among the lowest worldwide in which Female workers only receive **72%** of their male equivalents' salaries (ILO, 2014).

Textile industry contribution to GDP: According to the Egyptian Ministry of Trade and Industry, the textile industry accounted for **3.6%** of Egypt's Gross Domestic Product (GDP) in 2020.

Textile imports and exports by country: Egypt's top textile export markets in 2020 were the **United States, Italy, Spain, and Germany**, while its top textile import markets were **China, India, and Turkey**, according to data from the International Trade Centre.

Textile industry employment by gender: Women make up a significant portion of the workforce in the textile industry in Egypt, with around **56%** of workers in the sector being female, according to a report by the International Labor Organization.

All these statistics highlight the significant role that the textile sector plays in the Egyptian economy, as well as the challenges and opportunities for sustainable development in the sector.

Regarding efficiency and sustainability of the Textile Sector in Egypt:

Energy consumption: According to Industrial Modernization Center, the textile industry in Egypt consumes about **3.6%** of the country's total energy, and around **40%** of this energy is used for the operation of machinery and equipment.

Wastes generated: The textile industry in Egypt generates significant amounts of waste, including fabric scraps, dyeing

chemicals, and packaging materials. According to a report by the United Nations Industrial Development Organization (UNIDO), textile dyeing and printing processes in Egypt generate approximately **60k tons** of liquid waste per year, which can cause environmental pollution if not properly managed.

Sustainable production: While there is limited data available on the size and growth of the sustainable textile sector in Egypt, there are a growing number of sustainable textile initiatives in the country, such as the **Better Cotton Initiative**, which aims to promote sustainable cotton production, and the **Green Textile Initiative**, which focuses on reducing the environmental impact of textile production.

These statistics provide additional context on the Egyptian textile sector and highlight some of the country's strengths and opportunities for growth, as well as some of the challenges that the sector faces, such as environmental impact and labor conditions. It provides additional insight into the structure and dynamics of the textile sector in Egypt, including its contribution to the economy, major trading partners, and gender dynamics within the industry.

CHALLENGES AND OBSTACLES



While there are several circular economy initiatives and regulations in place to promote sustainable textile production in Egypt, there are also challenges and obstacles facing the sector. Some of the main challenges include lack of awareness, limited funding, inadequate infrastructure, and insufficient regulatory enforcement.

One of the key challenges facing the sustainable textile sector in Egypt is **the Lack of Awareness and Education** among consumers and producers about the importance of sustainable production practices. There is a need for education and awareness-raising initiatives to promote sustainable production and consumption practices in the textile industry. Such a limited consumer awareness means that there is often less demand for sustainable textiles, which can make it harder for businesses to adopt more eco-friendly practices.

Limited Funding and Access to Financing are other challenges facing the sector. Small and medium-sized enterprises (SMEs) often face difficulties in obtaining financing to invest in sustainable production practices. Access to financing is particularly challenging for SMEs in the textile industry, which often have limited financial resources.

Inadequate infrastructure and unmodernized equipment, particularly in terms of waste management and water treatment, are other obstacles facing the sustainable textile sector in Egypt. There is a need for raising investment in infrastructure to support sustainable production practices and reduce the environmental impact of textile production. Such out-of-date machinery led to the decline of Egyptian textile competitiveness and quality, increased loss and waste, and minimize profit, especially for small producers and SMEs.

Insufficient regulatory enforcement – policy and regulatory gap: are also a main challenge in the sector. While there are regulations in place to promote sustainable production practices, there is a need for greater enforcement of these regulations to ensure compliance and prevent environmental harm.

Limited Availability of Sustainable Materials: The lack of locally available sustainable materials and alternative options to conventional cotton and synthetic fibers is a challenge in the Egyptian textile industry.

Lack of Collaboration and Coordination: There is a need for greater collaboration and coordination between various stakeholders in the textile industry, including manufacturers, policymakers, and consumers.

High Costs of Sustainable Production Practices: Implementing sustainable production practices, such as reducing water and chemical usage, can be expensive for small and medium-sized enterprises (SMEs) in the textile industry, which make up the majority of businesses in Egypt.

Lack of Supply chain transparency and traceability: Achieving transparency and traceability across the textile supply chain can be challenging, particularly in terms of raw material sourcing and the monitoring of subcontracted facilities. Lack of transparency makes it difficult to identify and address environmental and social issues at each stage of production.

Increasing Cost of Production: due to COVID, geopolitical conflict worldwide led to a significant increase in the cost of production of all sectors, including sustainable textiles due to increasing interest rates, a significant increase in the local inflation rate, and decreasing value of the Egyptian Pound. As a result, the textile industry can't compete in the international market.

Extensive Resources Utilizations: Energy and Water Consumption and greenhouse gas emissions are common in Textile manufacturing, primarily sourced from non-renewable sources. High water/energy consumption contributes to greenhouse gas emissions, and pollution of water resources exacerbating climate change concerns.

Labor Rights and Social Issues: Labor rights and social issues, such as fair labor practices and worker safety, are also important considerations in the sustainable textile sector in Egypt. There is a need to address these issues to ensure that sustainable production practices are also socially responsible.

Lack of skilled labor: Adopting sustainable manufacturing practices often requires specialized knowledge and skills. However, there may be a shortage of trained professionals in Egypt with expertise in sustainable textile production techniques, chemical management, and environmental management systems. Businesses may struggle to find qualified personnel to implement and manage sustainability initiatives.

Lack of Standards and Certifications: There is a lack of standards and certifications for sustainable textile production in Egypt, making it difficult for consumers to identify and choose sustainable products.

Lack of Research and Development (R&D): The lack of R&D has resulted in low quality of cotton and other related raw materials (i.e. leather). Because of the subsequent low profitability in cotton crops, farmers are shifting to other cash crops, such as sugar cane.

OPPORTUNITIES AND POTENTIALS



Abundant Availability of Raw Materials: such as cotton, which is a widely used raw material in the textile industry in Egypt. Leveraging sustainable farming practices, such as organic or regenerative agriculture, presents an opportunity to produce sustainable and traceable cotton, meeting the increasing demand for eco-friendly textiles globally.

Renewable Energy Potential: Egypt has significant renewable energy resources, including solar and wind power, and more recently the Green Hydrogen with the European Commission. Promoting the adoption of renewable energy sources in textile manufacturing can help reduce greenhouse gas emissions, lower energy costs, and enhance the sector's sustainability profile.

Circular Economy and Waste Management Policies (Egypt Vision 2030): Implementing circular economy principles in the textile sector presents an opportunity to minimize waste, reduce resource consumption, and promote recycling and upcycling. Encouraging the development of textile recycling infrastructure and establishing partnerships with waste management entities can create a more sustainable and resource-efficient industry.

Innovation and Technology Adoption: Embracing technological advancements, such as digitalization, automation, and data analytics, can optimize production processes, improve efficiency, and reduce environmental impact. Investing in research and development to develop innovative and sustainable textile manufacturing technologies can enhance competitiveness and attract investment.

Eco-labeling and certification: The growing global demand for sustainable textiles presents an opportunity for

Egyptian textile manufacturers to obtain eco-labeling certifications, such as GOTS (Global Organic Textile Standard) or OEKO-TEX, which can enhance market access and appeal to environmentally conscious consumers.

Collaboration and partnerships: Collaborating with international brands, retailers, and organizations that prioritize sustainability can open doors to export opportunities and knowledge sharing. Partnering with industry associations, research institutions, and NGOs can facilitate capacity building, access to best practices, and funding opportunities for sustainable initiatives.

Tourism and local market potential: Egypt's thriving tourism sector and the growing interest in sustainable tourism offer an opportunity to develop and market sustainable textiles catering to tourists' preferences. Additionally, tapping into the local market and raising consumer awareness about sustainable textile options can stimulate domestic demand and support the growth of the sector.

Job creation and social impact: The expansion of the sustainable textile sector can create employment opportunities, particularly in rural areas where cotton farming is prevalent. Promoting fair labor practices, skill development programs, and worker empowerment initiatives can enhance social well-being and contribute to sustainable development goals.

RECOMMENDATIONS



The policy paper presented a set of tailored recommendations for SMEs, startups, and the government in order to address the challenges and obstacles facing the sustainable textile sector in Egypt. Such recommendations will be further elaborated during the interviews with the key industry stakeholders as well as during the upcoming interviews. Final national recommendations are specific to Egypt's Sustainable Textile industry will be further shared with other MENA countries participating in this assignment, Tunisia and Lebanon, in order to formulate, besides national recommendations, a regional common one.

GENERAL RECOMMENDATIONS:

The sustainable textile sector in Egypt faces significant challenges related to regulation, chemical use, textile waste, and energy consumption. However, the sector also presents numerous opportunities for growth and innovation. By addressing these problems and capitalizing on opportunities and recommendations, relevant stakeholders in the sustainable textile sector can help to drive growth, innovation, and sustainability in the years to come, ultimately contributing to a more vibrant and environmentally responsible textile industry in Egypt. The sustainable textile sector in Egypt represents a significant opportunity for economic growth and (green) job creation, while also offering a pathway towards a more environmentally sustainable future. To realize this potential, stakeholders in the sector should consider the following recommendations:

Improving the Business Environment: it is recommended to improve the investment climate in Egypt by simplifying regulations, reducing red tape, and promoting transparency and accountability. Developing a comprehensive sustainability framework that addresses the sector's most pressing challenges, including energy consumption, water use, and textile waste, is highly needed. The new business policy environment for sustainable textile businesses should include regulatory frameworks that support circular economy principles and green public procurement.

Encourage Collaboration and Coordination: Collaboration and coordination between different stakeholders, including manufacturers, policymakers, and consumers, can help promote sustainable production practices and address social and environmental issues as well as the meaningful use of the resources. This can be achieved through the development of public-private partnerships, stakeholder dialogues, and multi-stakeholder initiatives (MSIs) (Mohammadi et al., 2021). The **Public-Private Partnerships** between businesses, NGOs, government agencies, and other stakeholders can promote knowledge sharing, capacity building, and development of sustainable supply chains.

Increase Awareness and Education: Increasing awareness and education on sustainable production practices can help promote the adoption of environmentally and socially responsible practices (minimize waste, increase productivity, and decrease energy consumption...). This can be achieved through public awareness campaigns, training programs, media/TV/social media campaigns and educational initiatives, and promotional materials with infographics (Nouri & AlGhandour, 2020).

Provide Access to Funding and Financing: Providing access to funding and financing for small and medium-sized enterprises (SMEs) can help them invest in sustainable production practices. This can be achieved through the development of green financing programs and the provision of grants and loans (Hassan & Mohamed, 2020).

Develop Standards and Certifications: Developing standards and certifications for sustainable textile production can help consumers identify and choose sustainable products. This can be achieved through the empowerment of national or regional standards, or through the adoption of international certifications, such as the Global Organic Textile Standard (GOTS) or the Cradle-to-Cradle certification (Karaman, 2020). Such standards should be certified and accepted by the main importers of Egyptian organic textiles.

Invest in Infrastructure: Investing in infrastructure, particularly in waste management, water treatment, and renewable energy, can help reduce the environmental impact of textile production and support sustainable production practices. This can be achieved through the development of public-private partnerships and the allocation of government funding for infrastructure development (Riad et al., 2021). The international investment will play a pivotal role, in addition to the private sector.

Strengthening value chains via Digitalization, R&D, and Technology: There is potential for the use of digitalization, research, and innovative technologies to improve sustainability in the textile industry in Egypt. For example, the use of data analytics and artificial intelligence can help businesses to optimize their production processes and reduce waste. There is also potential for the development of new technologies to make textile production more eco-friendly.



RECOMMENDATIONS FOR BIG ENTERPRISES AND COMPANIES IN THE SUSTAINABLE TEXTILE SECTOR IN EGYPT:

Market demand and consumer preferences: Conduct market research to understand the demand for sustainable textiles in Egypt and target export markets. Analyze consumer preferences and behavior to identify opportunities for sustainable product offerings. Businesses should align their sustainability initiatives with market demands to ensure a viable market for their products.

Supply chain transparency and traceability: Establish transparency and traceability throughout the supply chain by partnering with suppliers that adhere to sustainable practices. Implement systems to track and verify the origin and sustainability credentials of raw materials. Ensure that suppliers follow ethical labor practices and comply with environmental standards.

Life cycle assessment and product eco-design: Conduct a life cycle assessment (LCA) of products to identify areas of high environmental impact throughout their life cycle. Use the results of the LCA to inform eco-design decisions and optimize product design, materials selection, and manufacturing processes for sustainability. Consider factors such as resource efficiency, recyclability, and durability.

Chemical management and environmental impact: Adopt environmentally friendly and safe chemical management practices to minimize the use of hazardous substances and the generation of harmful emissions. Implement proper handling, storage, and disposal procedures for chemicals. Consider the adoption of certifications such as bluesign® or Oeko-Tex Standard 100 to ensure the use of safe and sustainable chemicals.

Resource efficiency and waste reduction: Implement measures to optimize resource efficiency, such as water and energy conservation, in textile production processes. Identify opportunities for waste reduction, reuse, and recycling.

Implement waste management systems that prioritize waste minimization and proper disposal of hazardous waste.

Worker well-being and fair labor practices: Ensure compliance with fair labor standards, worker health, and safety regulations. Implement ethical labor practices throughout the supply chain and provide workers with safe working conditions, fair wages, and access to training and development opportunities.

Collaboration and partnerships: Foster collaboration with stakeholders across the textile value chain, including suppliers, customers, industry associations, and research institutions. Collaborative efforts can drive innovation, knowledge sharing, and collective action towards sustainability goals. Engage in partnerships to access funding, resources, and expertise to support sustainability initiatives.

Continuous improvement and performance measurement: Implement a system for monitoring and measuring sustainability performance. Set targets and key performance indicators (KPIs) to track progress over time. Regularly assess and review sustainability initiatives, identify areas for improvement, and communicate achievements to stakeholders.

Regulatory compliance and standards: Stay informed about local and international regulations and standards related to sustainable textile production. Ensure compliance with applicable environmental, labor, and social regulations. Obtain relevant certifications and labels to enhance credibility and market access.

Employee engagement and training: Involve employees in the sustainability transition process and provide training on sustainable practices. Foster a culture of sustainability within the organization, encouraging employees to contribute ideas, provide feedback, and actively participate in sustainable initiatives.



RECOMMENDATIONS FOR SMES IN THE SUSTAINABLE TEXTILE SECTOR IN EGYPT:

Adopt Sustainable Production Practices: SMEs should focus on adopting sustainable production practices that reduce their environmental impact and improve social conditions in their factories. For example, implementing measures to reduce water and energy consumption, using safer environmentally-friendly chemicals in their processes, and reducing waste can improve the sustainability of their operations.

Invest in Research and Innovation (R&I): SMEs in Egypt should invest in innovation and technology to improve their production processes and develop new sustainable materials and products. This can involve partnering with universities, research institutions, or other businesses to develop new technologies and innovative products that reduce environmental impact.

Participate in Networks and Partnerships: Egyptian SMEs should participate in national, regional, and international networks and partnerships with other businesses and stakeholders to share best practices, access new domestic and international markets, and collaborate on sustainability initiatives. This can involve joining industry associations, participating in local or international trade shows, or partnering with suppliers or customers to improve sustainability in their supply chains.

Seek out Financing and Funding Opportunities: Egyptian SMEs should seek out financing and funding opportunities to support their sustainability initiatives, from diversified resources. This can involve applying for government grants or subsidies, seeking out green financing options, or partnering with investors or venture capitalists who prioritize sustainability.

Certifications and Standardization: in order to compete at the international level, Egyptian SMEs should obtain certifications and standards for sustainable textile production, such as the Global Organic Textile Standard (GOTS) or the Fair-Trade certification. These certifications can help Egyptian SMEs differentiate themselves in the market and demonstrate their commitment to sustainability.



RECOMMENDATIONS FOR STARTUPS IN THE SUSTAINABLE TEXTILE SECTOR IN EGYPT:

Focus on a Niche Market: Startups should focus on a specific niche market, such as sustainable activewear or eco-friendly baby clothing. This can help them differentiate themselves in a crowded market and establish a loyal customer base.

Build a Strong Brand: Startups should invest in building a strong brand that reflects their commitment to sustainability. This can involve developing a clear brand identity, using sustainable packaging and marketing materials, and communicating their sustainability story to customers.

Use Sustainable Materials: Startups should prioritize the use of sustainable materials in their products. This can involve using organic cotton, recycled polyester, or other sustainable materials that have a lower environmental impact, in addition to minimizing the production cost.

Implement Sustainable Practices from the Start: Startups should implement sustainable practices from the beginning, such as reducing waste, conserving water and energy, and using safer chemicals. This can help them establish a sustainable culture from the start and reduce the need for costly changes down the road.

Leverage Technology and Innovation: Startups should leverage technology and innovation to develop new sustainable materials and production processes. This can involve partnering with universities or research institutions to develop new technologies or exploring new production methods that reduce environmental impact.

Seek out Mentorship and Guidance: Startups should seek out mentorship and guidance from experienced entrepreneurs and sustainability experts. This can involve joining a startup accelerator or seeking out advice from sustainability consultants or industry associations.

In general, SMEs and startups should focus on implementing circular economy principles and sustainable production methods, such as reducing water and energy consumption, minimizing hazardous chemical use, and developing systems for textile waste management. While, the private sector organizations, investors, and incubation/acceleration programs should look to provide target support for sustainable textile startups and SMEs, including funding, mentorship, coaching, networking, and access to markets.



RECOMMENDATIONS FOR THE EGYPTIAN GOVERNMENT IN THE SUSTAINABLE TEXTILE SECTOR IN EGYPT:

In conclusion, the Egyptian Government through relevant Ministries should consider developing a more streamlined regulatory framework for circular textile businesses, and work to promote greater collaboration between stakeholders in the sector.

Provide Financial Incentives: The Egyptian Government could provide financial incentives to textile businesses that adopt sustainable and green practices. This could include tax breaks, grants, and low-interest loans.

Implement Supportive Policies and National Strategies: in alignment with Egypt Vision 2030, the government could implement policies that support sustainable textile practices, such as regulations that limit the use of hazardous chemicals or requirements for sustainable manufacturing practices. On the other side, there should be a stricter monitoring system to treat and discard textile wastes (solid/water).

Develop Infrastructure for Sustainable Production: The government could invest in infrastructure that supports sustainable textile production, such as wastewater treatment plants or renewable energy sources. Such valorization of the waste will add value/additional profit to SMEs and startups.

Provide Awareness, Education, and Training: The government could provide education and training programs for textile workers and entrepreneurs on sustainable practices, such as resource efficiency and waste reduction. Consumer awareness is an integral part that should be boosted.

Foster Research and Innovation: Through its funding mechanism, the Egyptian Government should launch more green initiatives and calls for eco-friendly applications and solutions, with a privilege to technologies of a high TRL (technology readiness level).

Facilitate Access to Sustainable Materials: The government in Egypt could facilitate access to sustainable materials by providing a national database about local and international suppliers, supporting the development of sustainable material supply chains, and offering subsidies to encourage the use of sustainable materials.

Encourage Partnerships and stakeholder engagement: Foster collaboration between government entities, industry associations, NGOs, and other stakeholders to establish a platform for dialogue, knowledge-sharing, and joint initiatives. Encourage the participation of sustainable textile manufacturers in policy-making processes and industry consultations to ensure their voices are heard.

Promote Sustainable Public Procurement: The government could promote sustainable public procurement by requiring that textiles purchased by government agencies meet certain sustainability standards.

By implementing these recommendations, stakeholders (SMEs, Startups, and Government) in the sustainable textile sector can help to build a more resilient, prosperous, and sustainable industry in Egypt, ultimately benefiting both the economy and the environment.



FUTURE OUTLOOK



This part of the policy paper shed light on a discussion of future goals through decarbonization and potential opportunities for growth and innovation in the sustainable textile sector in Egypt.

Overall, the future outlook for the sustainable textile sector in Egypt is promising. By adopting circular economy principles, investing in innovation and technology, and leveraging market opportunities, the sector can drive growth and create a more sustainable future for Egypt. The continued growth of the sustainable textile sector in Egypt is likely to be driven by factors such as increasing consumer awareness and demand for environmentally friendly and socially-responsible products, as well as the growing trend of "GREEN" procurement and labeling by both public and private entities. The development of innovative and sustainable textile production technologies, materials, and processes is likely to be a key driver of future growth and competitiveness in the sector. The integration of sustainable textile practices and technologies into the broader Egyptian textile industry could help to reduce the industry's environmental impact and improve its overall sustainability, while also providing opportunities for innovation and cost savings. This could include initiatives to reduce water usage, increase energy efficiency, and improve waste management practices. The continued development of training and capacity-building programs for workers and businesses in the sustainable textile sector could help to address some of the challenges facing the sector, including the need for skilled labor and management expertise. Finally, international trade agreements and collaborations may provide opportunities for Egyptian textile manufacturers to expand their markets and supply chains, particularly in Europe and other regions with strong sustainability and ethical standards. Here are some of the key future orientations that have to be considered in order to move toward a more sustainable textile industry in Egypt:

Decarbonization Goals: The sustainable textile sector in Egypt has the potential to contribute significantly to the country's decarbonization goals. By adopting circular economy principles and sustainable production processes, which are already integral parts of the national **Vision 2030**, the sector can reduce its environmental impact and contribute to Egypt's commitments to reduce greenhouse gas emissions and achieve a more sustainable future.

Innovation and Investment Opportunities: The sustainable textile sector presents several opportunities for innovation and investment in Egypt. By leveraging modern technologies and sustainable business models, companies and SMEs in the sector can drive growth and create new market opportunities. Moreover, the sector can benefit from increased private and public investment in research and development, product design, and supply chain optimization.

Market Opportunities: As consumers increasingly demand sustainable products, at both domestic and international levels, the sustainable textile sector in Egypt can position itself as a leader in the MENA region by offering high-quality, sustainable products. The sector can also tap into growing export markets by meeting the sustainability requirements of international buyers.

Supporting Local Communities: The sustainable textile sector can also support local communities in Egypt by creating job opportunities and supporting SMEs, startups, and small producers' cooperatives. By adopting sustainable business practices and collaborating with local stakeholders, companies in the sector can build sustainable supply chains that support the development of local communities.



CONCLUSION

This section is an important part of the policy paper as it brings together the main findings and recommendations of the study. It summarized the main points and emphasize the key messages of the study. To recap the main challenges facing the sustainable textile sector in Egypt and the opportunities for improvement, here are the main results of the analysis done as part of the policy paper:

- It is vital to highlight at all levels and sectors (public, and private) the importance of sustainable textile practices, materials, and technologies and the benefits that they can bring to the industry, the environment, and society as a whole.
- Emphasize the need for collaboration and coordination among all relevant stakeholders in the industry, including the government, private sector (big manufacturers, SMEs, startups), civil society, and consumers, to achieve a sustainable textile sector in Egypt.
- Acknowledge the progress made so far and the initiatives and programs, governmental and private, that are already underway to promote sustainable practices in the industry.
- Provide an overview of the recommended actions for stakeholders, including SMEs, startups, and the government, to improve the sustainability of the textile sector in Egypt.
- Call for continued efforts and a long-term commitment to sustainability to achieve a thriving and sustainable textile industry that contributes to Egypt's economic growth and protects the environment and public health.
- Highlight the importance of promoting sustainability in the Egyptian textile sector to meet the growing demand for sustainable products in local and international markets.
- Emphasize the need for awareness raising, capacity building, and training programs for SMEs and startups to help them adopt sustainable practices and technologies and compete in the global market.
- Recognize the potential for Egypt to become a leader in sustainable textile production in the MENA region and beyond, and the economic and environmental benefits that such leadership can bring.
- Call for increased investment and funding for sustainable textile initiatives and programs, including research and innovation, infrastructure, and capacity building.
- Stress the importance of stakeholder engagement and communication to build consensus and create a shared vision for a sustainable textile sector in Egypt.

The Policy Paper is providing a lasting impression and motivate the stakeholders to take action to promote sustainable practices and technologies in the textile industry. It will provide a base of the upcoming interviews and workshops with the key stakeholders with the aim to materialize the main findings and recommendations and inspire the policymakers and key actors to support efforts towards a sustainable future for the textile sector in Egypt.



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- CAPMAS website: <http://www.capmas.gov.eg/>

ANNEXES

ANNEX I: INTERVIEWS QUESTIONS – DEFINING CHALLENGES AND OPPORTUNITIES

Here are some interview questions that could be asked during a workshop – to be organized by **Texfor** - with relevant stakeholders to define challenges and opportunities for the sustainable textile sector in Egypt as well as to inform the development of strategies and policies that can support the growth and development of the sector:

- What do you see as the **main challenges** facing the sustainable textile sector in Egypt?
- What are the **main obstacles that businesses** in the sustainable textile sector face in Egypt?
- What **opportunities** do you see for the development of the sustainable textile sector in Egypt?
- What **steps** do you think should be taken to improve the sustainability of textile production in Egypt?
- What **role** do you think the **government** can play in supporting the development of the sustainable textile sector in Egypt?
- What are the **most important factors** that businesses should consider when transitioning to sustainable textile production in Egypt?
- How can the **textile industry** in Egypt collaborate with other sectors to achieve sustainability goals?
- What kind of support would be most helpful to **SMEs and startups** in the sustainable textile sector in Egypt?
- What kind of **training and education programs** would be most useful for workers in the sustainable textile sector in Egypt?
- How can **consumers** be educated and encouraged to support sustainable textile production in Egypt?

ANNEX II: QUESTIONER AND SURVEY

These closed-ended questions can be useful in quickly obtaining quantitative data on the opinions and experiences of stakeholders in the sustainable textile sector in Egypt, which can then be analyzed to inform the development of strategies and policies to support the sector.

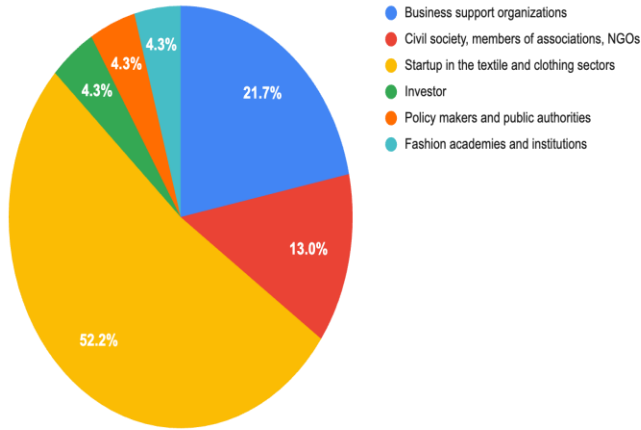
- Do you believe that the sustainable textile sector in Egypt faces significant challenges? YES | NO
- Have you encountered any obstacles in transitioning to sustainable textile production? YES | NO
- Do you see opportunities for growth and development in the sustainable textile sector in Egypt? YES | NO
- Have you implemented any sustainable practices in your textile business? YES | NO
- Do you think the government is doing enough to support the development of the sustainable textile sector in Egypt? YES | NO
- Have you received any training or education on sustainable textile practices? YES | NO
- Do you think that consumer demand for sustainable textiles is increasing in Egypt? YES | NO
- Would you be willing to pay more for sustainable textiles? YES | NO
- Do you think that collaboration between businesses and other stakeholders is important for the development of the sustainable textile sector in Egypt? YES | NO
- Have you implemented any energy efficiency measures in your textile production process? YES | NO

In addition, providing the stakeholders with some multiple-choice questions that could be included in a questionnaire for stakeholders in the sustainable textile sector in Egypt. MCQs can help to quickly and easily gather quantitative data on the opinions and experiences of stakeholders in the sustainable textile sector in Egypt, and can provide insights into the challenges and opportunities facing the sector.

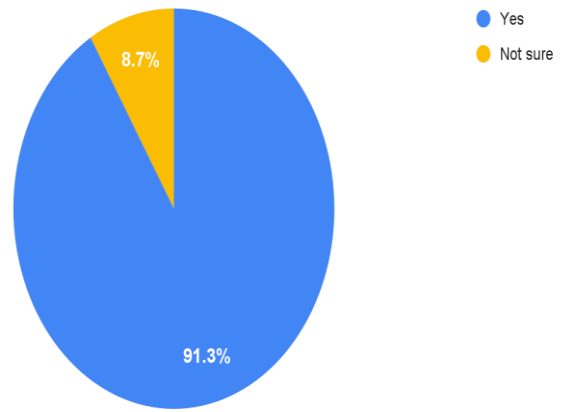
- Which of the following do you consider to be the biggest challenge facing the sustainable textile sector in Egypt?
(a) lack of financing, (b) lack of government support, (c) lack of consumer awareness, (d) lack of infrastructure.
- Have you encountered any obstacles in transitioning to sustainable textile production?
(a) Yes, (b) No.
- Do you think that the government is doing enough to support the development of the sustainable textile sector in Egypt?
(a) Yes, (b) No, (c) Not sure.
- Have you received any training or education on sustainable textile practices?
(a) Yes, (b) No.
- Would you be willing to pay more for sustainable textiles?
(a) Yes, (b) No, (c) It depends on the price difference.
- Do you think that collaboration between businesses and other stakeholders is important for the development of the sustainable textile sector in Egypt?
(a) Yes, (b) No, (c) Not sure.
- Have you implemented any energy efficiency measures in your textile production process?
(a) Yes, (b) No.
- Do you think that consumer demand for sustainable textiles is increasing in Egypt?
(a) Yes, (b) No, (c) Not sure.
- Which of the following sustainable practices have you implemented in your textile business?
(a) water-energy efficiency, (b) use of organic/recycled materials, (c) reduction of waste/ emissions, (d) other.
- Do you think that the sustainable textile sector in Egypt has significant growth potential?
(a) Yes, (b) No, (c) Not sure.
- Which of the following best describes the size of your textile business?
(a) Small, (b) Medium, (c) Large.
- What type of sustainable textile products do you produce?
(a) Clothing, (b) Home textiles, (c) Industrial textiles, (d) Other.
- Which of the following best describes your customer base?
(a) B2B (business-to-business), (b) B2C (business-to-consumer), (c) Both.
- Do you export your sustainable textile products?
(a) Yes, (b) No.
- Which of the following best describes your level of knowledge about sustainable textile production?
(a) High, (b) Medium, (c) Low.
- Which of the following is the most effective way to promote sustainable textile production in Egypt?
(a) Government incentives, (b) Education and training, (c) Consumer awareness campaigns, (d) Other.
- What are the biggest challenges you face in implementing sustainable textile production practices?
(a) Lack of knowledge, (b) Lack of resources, (c) Lack of demand, (d) Other.
- Have you received any government support or incentives for transitioning to sustainable textile production?
(a) Yes, (b) No.
- Do you think that sustainable textile production can be profitable for businesses in Egypt?
(a) Yes, (b) No, (c) Not sure.
- What are your future plans for sustainable textile production in your business?
(a) Expand sustainable product lines, (b) Improve sustainable production practices, (c) Both, (d) None.

ANNEX III: SURVEY INSIGHTS

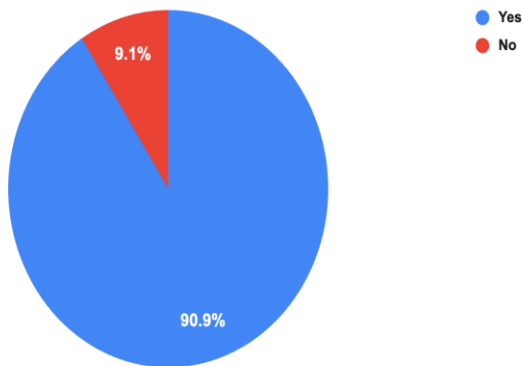
You define yourself as



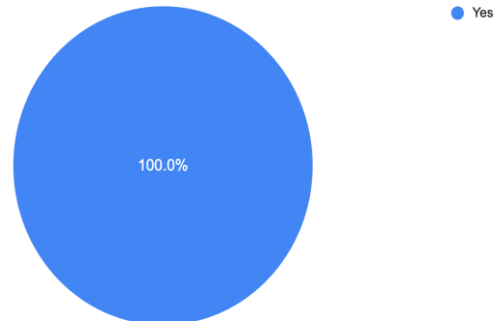
Do you believe that the sustainable textile sector in Egypt faces significant challenges?



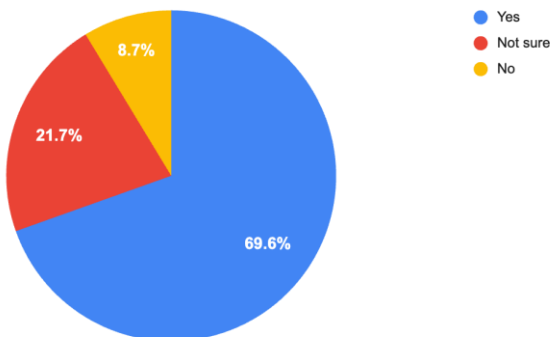
Have you encountered any obstacles in transitioning to sustainable textile production?



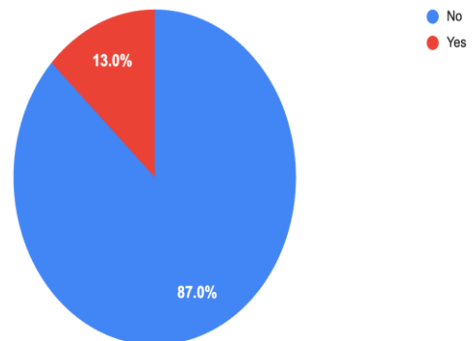
Do you see opportunities for growth and development in the sustainable textile sector in Egypt?



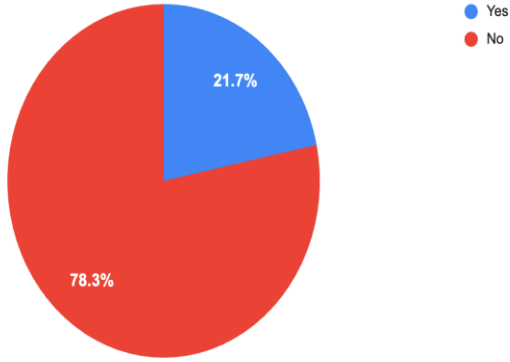
Have you implemented any sustainable practices in your textile business?



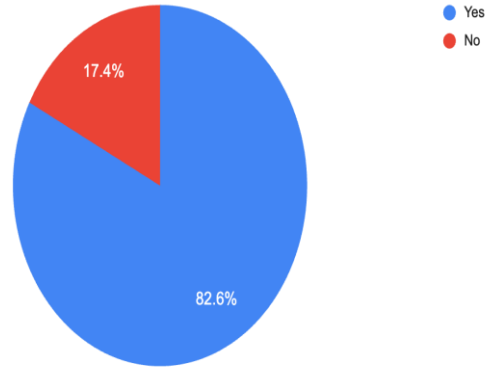
Do you think the government is doing enough to support the development of the sustainable textile sector in Egypt?



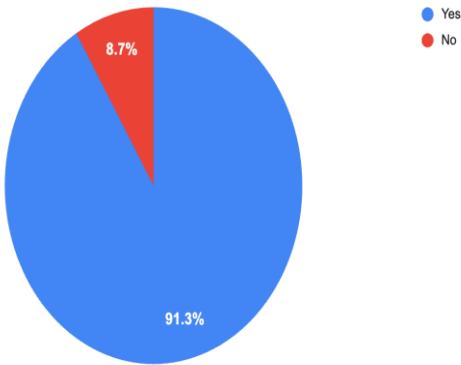
Have you received any training or education on sustainable textile practices?



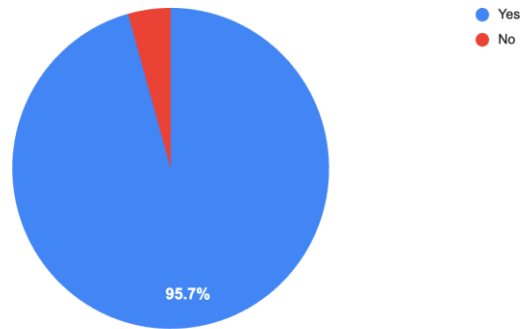
Do you think that consumer demand for sustainable textiles is increasing in Egypt?



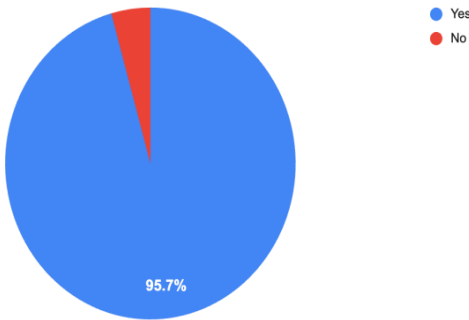
Would you be willing to pay more for sustainable textiles?



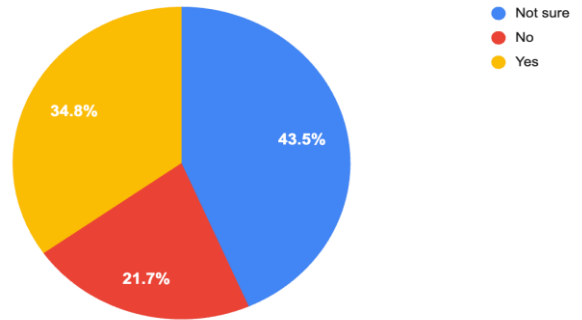
Do you think that collaboration between businesses and other stakeholders is important for the development of t...



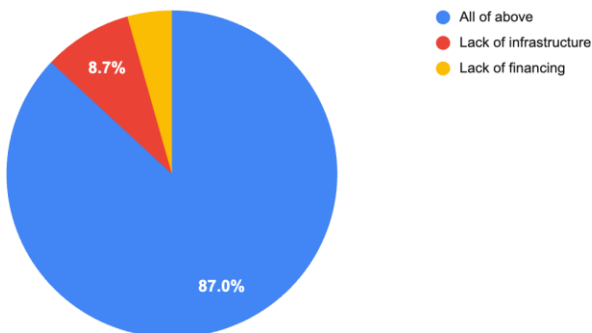
Do you think that collaboration between businesses and other stakeholders is important for the development of t...



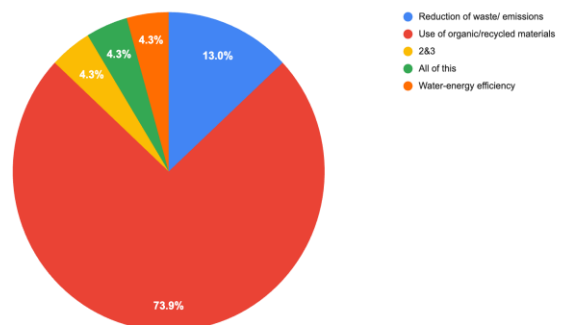
Have you implemented any energy efficiency measures in your textile production process?



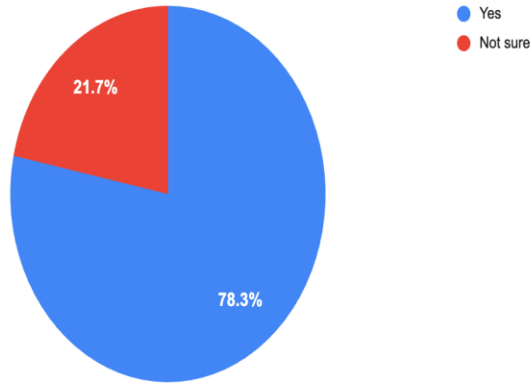
Which of the following do you consider to be the biggest challenge facing the sustainable textile sector in Egypt?



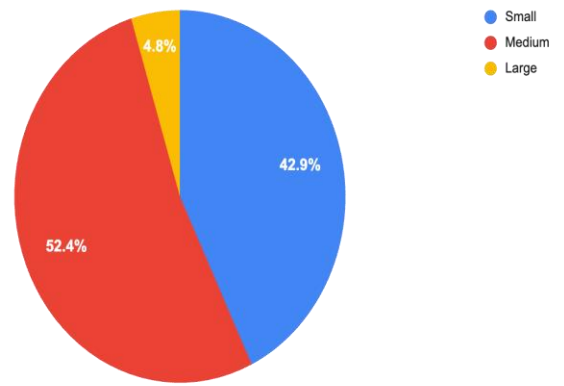
Which of the following sustainable practices have you implemented in your textile business?



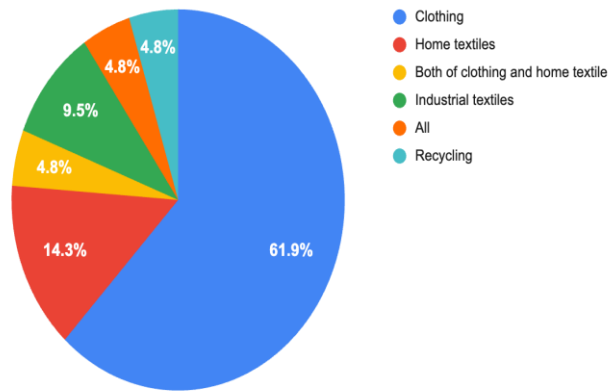
Do you think that the sustainable textile sector in Egypt has significant growth potential?



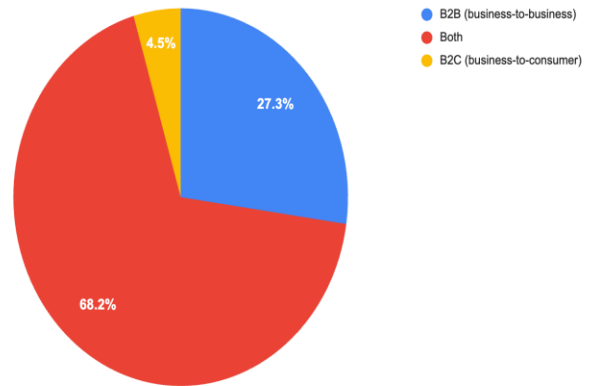
Which of the following best describes the size of your textile business?



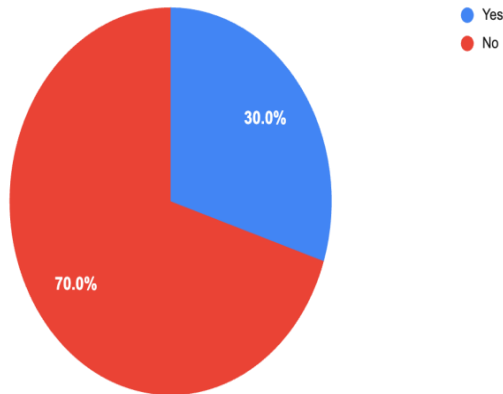
What type of sustainable textile products do you produce?



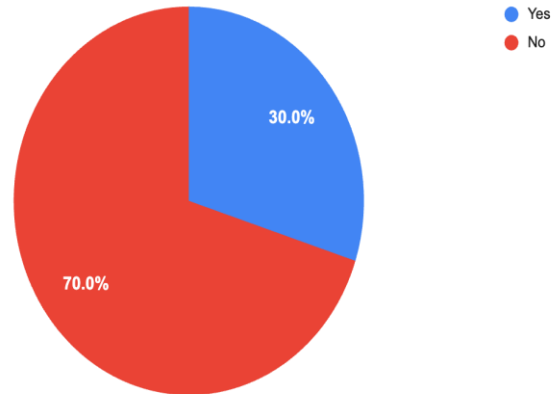
Which of the following best describes your customer base?



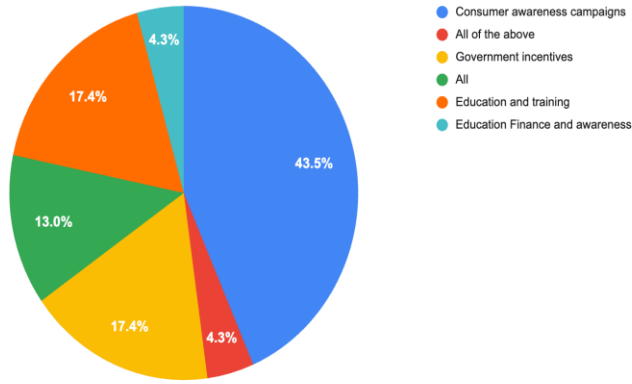
Do you export your sustainable textile products?



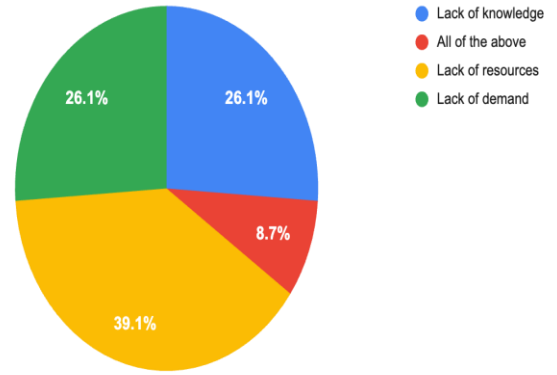
Do you export your sustainable textile products?



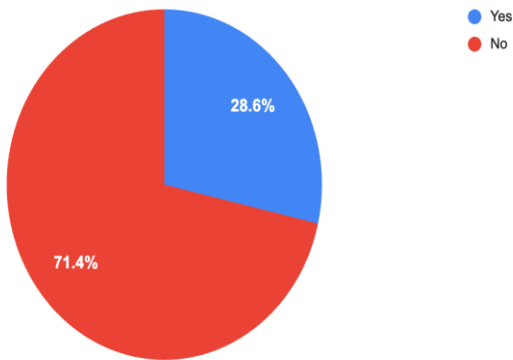
Which of the following is the most effective way to promote sustainable textile production in Egypt?



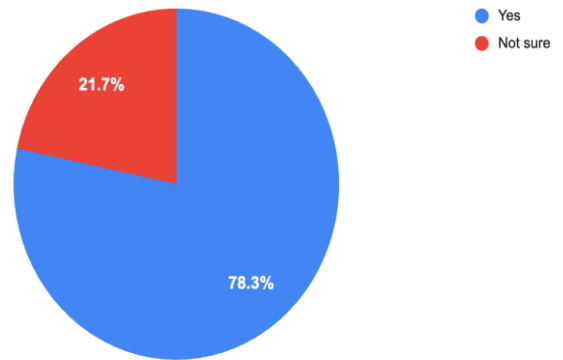
Count of What are the biggest challenges you face in implementing sustainable textile production practices?



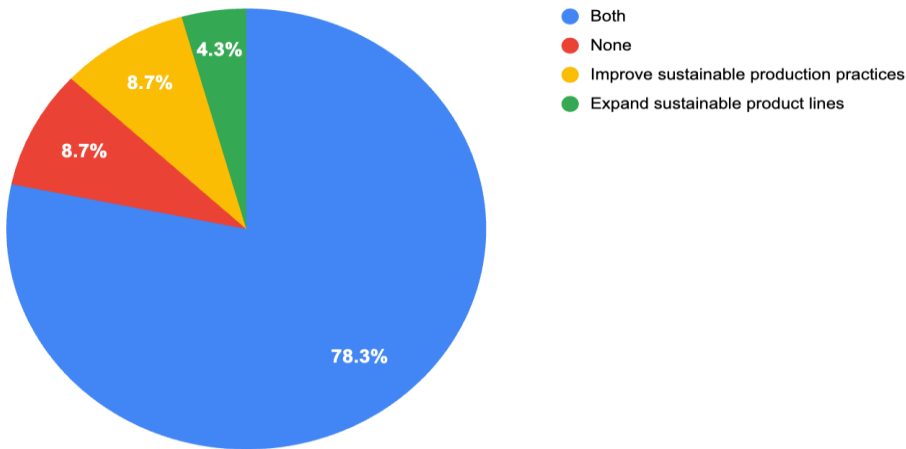
Have you received any government support or incentives for transitioning to sustainable textile production?



Count of Do you think that sustainable textile production can be profitable for businesses in Egypt?



What are your future plans for sustainable textile production in your business?



SEKEM

**DEVELOPMENT OF
A STRATEGY,
A ROADMAP AND POLICY RECOMMENDATIONS TO SET
SUSTAINABLE TEXTILE AND CLOTHING INDUSTRY**

ARAB REPUBLIC OF EGYPT

August 2023

