## The Informal Sector and the Environment

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#### Introduction

The apparel and textile industry is highly globalized and among the most polluting industries in the world, with a high impact from chemical use and emissions, water usage, energy use in production and transportation (mainly coal based), and in generating waste (Roos 2016; Sandin et al. 2019). In addition, the social issues involved in production are of great concern. Evidence of child labor, poor working conditions, salaries being below those required to maintain living standards, etc., is frequently reported. Apparel manufacturing is labor intensive and the workers are predominantly women with a low degree of formal schooling.

The informal textile and fashion sector plays a major role in the production of textiles for the world market in many developing countries. According to the World Bank (Enterprise Surveys, n.d.), in all countries around the world, over half of formal firms compete against unregistered firms and more than a quarter of all firms identify the practices of their competitors in the informal sector as a major constraint.

In India an estimated 90 percent of garments are produced by the informal sector (Moreno-Monroy et al. 2012). Several parts of the production process can easily be subcontracted, even to one individual sewing at home. In 2010 in Bangladesh, the second largest exporter of garments after China, employing over 4 million textile workers oh whom the majority are women, 75 percent of employees did not have a formal employment contract (Oxfam 2010).

The expansion and globalization of garment production to developing countries has of course brought employment and economic wealth to the producer countries, but also social challenges and negative environmental impact. For example, the growth in the number of factories in Asia has had a severe impact on water pollution and water security in the communities around cotton farms or textile printing and dyeing factories (ILO 2021). The factories are clustered around major river systems that are of vital importance for the economic, environmental, and social health of the communities living around them.

In spite of pressure on brands in recent years to take responsibility for suppliers and invest in reducing negative environmental and social impacts, the

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problems seem to prevail. This could partly be explained by the complexity of the textile supply chain, with many tiers of sub-suppliers, which makes it difficult to obtain transparency or control over the whole chain. The large share of production that takes place in the informal sector is a compounding factor. In addition, attempts to address the practice of using workers and small companies outside the formal market in this industry have had profound ramifications for the possibilities of reducing the negative environmental and social impact of production.

The aim of this chapter is therefore to explore market practices and aspects of the informal sector in the fashion and textile industry and supply chain, and discuss their potential impact on the environment and sustainable development.

#### Informal sector and the apparel industry

The production and consumption of apparel are highly globalized in nature with a total value of 3,000 billion US dollars, which constitutes two percent of the World's Gross Domestic Product (GDP) (Fashion United, n.d.). During the last 30 years the production of garments and textile has largely been situated in Asia, with China being dominant, followed by Bangladesh, India, and Vietnam (Texfiles BD, 2021). However, the majority of the largest retail brands are North American and West European, with consequently the largest market value. The French conglomerate Louis Vuitton Moët Hennessy is the largest fashion company in the world, followed by the US-based apparel and sportswear company Nike and then the Spanish fast-fashion company Inditex.

In 2018 the textile industry produced 106.5 million tonnes of fibres, comprising 63 percent fossil-based synthetic fibres, 24.5 percent cotton, 6 percent man-made cellulosics, and 6.5 percent other natural fibres such as wool, bast, jute, and silk (The Fiber Year, 2019).

The apparel and textile value chain involves many and different types of actors and steps in production. The types of production processes involved vary from agriculture and animal farming for natural fibres, chemical processing for regenerated and synthetic fibres, and wet treatment (dyeing, finishing), to mechanical operations for yarn and fabric production (spinning, knitting, weaving) (Roos 2016; Östlund et al. 2020), see Figure 4.1. Environmental impact occurs in each of these processes, resulting from energy, water, and material input and emissions to land, air, and water. In addition, often each step in the production line has multiple sub-suppliers (Roos 2016).

In the highly globalized apparel and textile industry, with its complex supply chains and distance between production and consumption activities, informal-sector activities are likely occurring at several stages along the value chain, from raw material farming and production to re-use and recycling. These informal activities are performed both by unregistered and informal enterprises and by unregistered workers. In general, an informal firm could be a traditional informal enterprise that produces low value-added products or services, has no employees and very low or no capital usage, and often operates from a home or

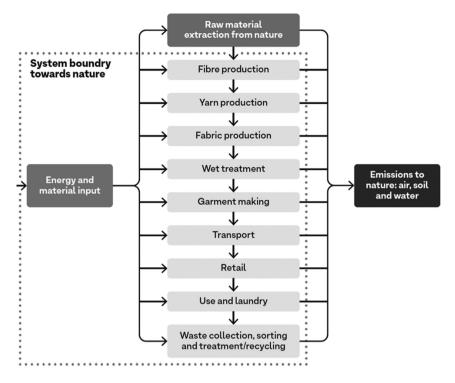


Figure 4.1 Textile value chain and environmental impact. Source: Östlund et al. 2020.

has no fixed location. It could alternatively be a firm similar to a formal SME, but with the difference that the informal firm does not comply with all the legal regulations the formal SME is faced with (Moreno-Monroy et al. 2012).

Since the 1980s several countries in Asia have invested in developing textileand garment-sector export industries, some only in garment assembly activities, where they compete through low-skilled labor and low labor cost, while others have an integrated supply chain covering cotton cultivation, fibre making, textile spinning, weaving, knitting, and dyeing, and producing and assembling products. In both India and Bangladesh several steps in the apparel production supply chain described in Figure 4.1 are part of the industrial backbone of the countries. Independent, temporarily contracted workers who migrate from rural areas to work on assembling, dyeing, weaving, etc., are present throughout the supply-chain activities.

The explicit focus on developing the garment industry for export purposes, competing via low wages, has since been copied. For example, the Ethiopian government several years ago launched an industrial park program aiming to attract foreign direct investment (FDI) in the garment industry to create jobs

and economic development. Like Asia, Africa has a large informal sector. An assessment of the size of the informal sector in Africa estimated it to employ 80 percent of the workforce and account for 55 percent of GDP (Diao et al. 2018). A study of Tanzanian economic growth and labor productivity showed that more than 80 percent of employment growth was accounted for by informal enterprises (ibid.). A recent study estimated that the Nigerian informal sector contributes over 40 percent of Nigerian GDP and provides significant numbers of jobs for the country's large young population (Akintimehin et al. 2019).

Farming of natural textile fibers is in many cases done in family or smaller-scale businesses. For example, India is the world's largest cotton producer and cotton here is often harvested by manual labor and the use of seasonal workers. In a study of the un-organized sector in India in 2004–2005, it was reported that the agricultural sector consisted almost entirely of informal workers (Shonchoy & Junankar 2014).

A study of workers' rights in the Bangladesh textile and apparel industry noted that in most apparel factories workers did not receive a formal employment contract. This was motivated by efforts to avoid social security benefit payments and other regulations, including on working hours (Ahmed & Peerlings 2009). In export factories workers were more likely to receive an employment contract, compared to those in factories working on domestic production (ibid.). In spite of many attempts by the Bangladeshi government, the International Labor Organization (ILO), and others to support the industry to adopt and invest in environmental and formalized labor standards and safety, informal employment still comprises a large proportion of the garment sector in Bangladesh (ILO 2021).

In Cambodia the garment industry is the largest employer in the country and accounts for 80 percent of exports. The difference from China, India and Bangladesh is that the Cambodian garment sector is 90 percent foreign owned and has focused on assembly, the lowest value segment of the supply chain. This makes Cambodian garment manufacturing dependent on imports and sensitive to price fluctuations on trimmings, buttons, and textile cuts, with the result that the Cambodian apparel sector is heavily driven by low wages. With many informal SMEs and limited access to finance, there are few opportunities to develop into value added activities. Formalization attempts in the Cambodian textile sector have also induced protest among workers. Attempts to support export-led economic growth by formalizing working conditions and promoting trade union membership in the textile and apparel sector, sparked massive protests because these efforts failed to include the workers in decent wage regimes (Arnold 2017).

Similar patterns to those seen in Asia can be found in Latin American and Caribbean countries, where 62 percent of formal firms compete against unregistered firms.

Informal practices are common not only in the farming and production stages of the value chain. The collection, sorting, and distribution of secondhand clothing is another area where the presence of informal activities is found, linking consumption in rich countries with textile waste and recycling activities in developing countries. Post-consumption clothes most commonly end up in landfills, posing a significant risk to public health and the environment. Open landfills have a risk of fires and slope failures and, as textiles decompose, gases and chemicals such as methane and carbon dioxide are produced, both of which cause strong odors and can contaminate groundwater (EPA 2012).

To address problems associated with textile waste the EU political agenda prioritizes recycling with the objective of driving sustainable production and consumption. The collection of used textiles is becoming mandatory by 2025 in all member countries and fashion brands, together with textile recycling firms, are positioning themselves as sustainable companies supplying the market with pre-used clothing. However, the majority of apparel items collected in the EU are not sold on local markets but exported to developing countries. The global second-hand apparel market is rapidly expanding, dominated largely by recyclers and brokers with international networks of buyers and efficient sorting systems (Norris 2015). In addition, the global second-hand market is suffering from lack of transparency where informal market practices and corruption are common. An analysis of a governmental attempt to improve and formalize the municipal waste management system in Beijing, China, revealed that informal-sector stakeholders could retrieve recyclables from the municipal waste stream through informal trading networks and undermine formalization attempts (Steuer et al. 2017). Another study of 15 collection companies in China investigated the possibility of integrating informal collection into the waste recycling chain. The study showed a potential comparative advantage for integrating informal over purely informal collection by identifying organizational models using ICT as well as social relationships to integrate the informal collectors (Xue et al. 2019).

As pointed out earlier in the chapter, a high proportion of apparel production is carried out by women, who traditionally also perform non-paid activities in the home and in communities where they live. In several garmentproducing countries, such as Bangladesh, Cambodia, and Vietnam, 80 percent of the workforce is female, and women work primarily in low-skilled positions. The use of migrant workers as well as practices concerning contract workers contributes to the high number of informal workers in the sector. However, there might be additional reasons for the high proportion of informal employment in the apparel industry. In a review study of female entrepreneurs in Africa, Ojong et al. (2021) point out that legal and institutional hurdles as well as the presence of corruption can explain the prominent presence of informal business in African countries in general. Female entrepreneurs often faced a lack of access to capital resources and were more often than men asked for bribes to get the necessary licenses to start a formal business legally. Even taxes were mentioned as an example of a barrier. For example, in Ghana the payment of taxes was connected to the ownership of a sewing machine rather than of the income generated by the business itself (ibid.).

One informal market activity that is pointed out as being dominated by women is street vending. An estimate from 2015 suggested that there were more than a billion street merchants across the globe, accounting for a large proportion of the growing informal non-agriculture employment in urban areas of Asia, Africa, and Latin America (Sekhani et al. 2019). Apparel is one of the more common products sold by street vendors, sourced either locally or from countries where it is produced inexpensively, like Thailand. Analyzing the material flows of vendor products in India and Cambodia, the authors argue that we need to see informal street vendors as embedded in and intertwined with the formal economy, where transactions and exchanges of products and services are part of the urban landscape (Sekhani et al. 2019). The authors argue for a need to inclusively study urban ecosystems in developing nations while at the same time addressing the needs of street vendors (ibid.). Similar observations on the interconnectedness of formal and informal sectors were made in a study on labor productivity and growth in Tanzania, where the authors found that 80 percent of employment growth was connected to principally informal small and medium firms, and that a small subset of those had above average labor productivity (Diao et al. 2018). The authors argued for targeting these productive informal firms for financial and other business services, and linking them more closely to the formal economy, since they were likely to contribute to the future growth of the Tanzanian economy (ibid.).

The informal sector is a large component of the apparel consumption and production system that intersects with many environmental and social problems. In the following section an overview of the environmental impact of apparel will be discussed.

#### Environmental impact of apparel

The debate on the lack of sustainability in the fashion industry has in recent years become prominent. The fashion industry is in the middle of a paradigm shift where so-called business as usual is no longer desirable. In December 2018, during the COP24 summit in Katowice, Poland, the Fashion Industry Charter for Climate Action was launched with the aim of bringing the international fashion industry together to work towards the goal of limiting global average temperature rises to 1.5 degrees. The European Commission's Green Transformation Action Plan in the EU, the Green Deal, identifies the apparel and textile sector as one of five priority areas where a special focus will be placed on resource efficiency and reduced emissions. Reflecting pressures on the industry to reduce its negative social and environmental impact, as well as incoming policy changes, it is likely that fashion companies and consumers will need to change current production and consumption practices.

Textile and apparel production is one of the most polluting industries in terms of impact from chemical emissions, water use, and greenhouse gas emissions. The global apparel industry in 2016 contributed 6.7 percent (i.e. 3,290 million metric tonnes  $CO_2$  eq.) of the total global climate impact (Quantis, 2018), or

 $442 \text{ kg CO}_2$  eq. per capita. Moreover, the industry is responsible for as much as 20 percent of pollution of rivers and lands, due to emissions from textile farms and factories. The use of toxic chemicals in production and packaging, the generation of large quantities of waste, the use and pollution of water in dyeing factories, and the emission of greenhouse gases due to high energy consumption in production and transportation are all responsible for the non-sustainability of the apparel industry.

In extensive assessment studies of Swedish apparel consumption, a key finding was that the production of garments accounts for the largest share of the industry's environmental impact. Life-cycle analyses were undertaken by researchers in the Mistra Future Fashion research program (Mistra Future Fashion, n.d.), measuring impact on climate change, toxic pollutants, contribution to water scarcity, and other factors (see Figure 4.2).

The impact from apparel consumption and production will, in all likelihood, continue to grow. In Sweden textile and apparel markets have grown by 89 percent in the last 10 years (Swedish Fashion Association, SFA, 2020). Global apparel and textile consumption is also increasing, spurred by the growth of the world population as well as economic development (see Figure 4.3).

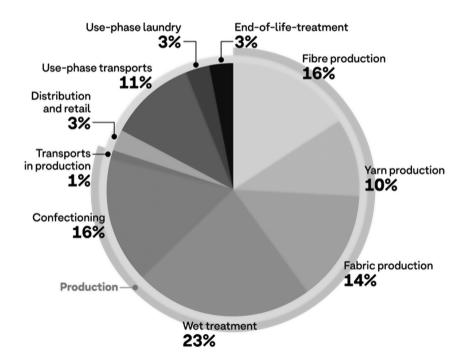


Figure 4.2 Climate impact of Swedish clothing consumption, contribution of life-cycle phases.

Source: Östlund et al. 2020.

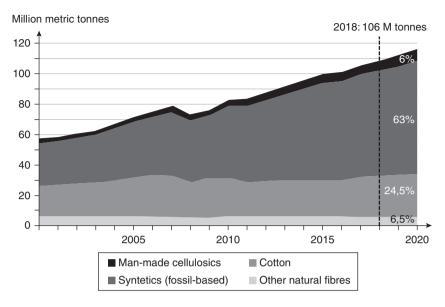


Figure 4.3 The global textile fibre market. Source: Illustration from Östlund et al. 2020.<sup>2</sup>

In addition, consumption patterns are changing. A report by the Ellen MacArthur Foundation (2017) showed that the apparel sales volume doubled between 2000 and 2015, while at the same time consumers were using each apparel item fewer times. Concepts such as fast fashion have developed to describe the more rapid fashion cycles that feature the production and sale of several clothing collections per season.

To sum up, the environmental impact from textile and apparel consumption and production is vast and growing. Product life assessments show that the largest challenges are connected to the use of energy, chemicals, and water in the production phases of a garment. The production countries are at the same time the same countries where informal firms and unregistered workers are common. To further explore the informal practices in the apparel sector, the following section will discuss the impact and linkages to socio-economic aspects of such practices.

#### Social impact and informal practices in the apparel sector

In addition to the environmental impact, as discussed in the previous section, the informal apparel sector also impacts the socio-economic aspects of sustainable development. The expansion of the apparel and textile sector in developing countries has contributed to job creation and growth, covered by the United Nations's sustainable development goal (SDG) 8, but at the same time negatively

impacted workers and communities' health and living conditions, which are targeted in SDG 3 and SDG 8. One of the most critically discussed areas of sustainable development in the apparel and textile industry is its social impact.

Apparel supply chains are typically organized in a complicated network of suppliers and subcontractors, with consumer markets located far from fibre production and apparel assembly factories. The complexity of apparel supply chains makes it difficult for clothing importers to get a transparent view of where and under which conditions garments are produced. In addition, since informal practices are common in several apparel-producing countries, the chances are that many of the identified problems might be unaccounted for in official statistics and in corporate assessments.

Spurring the development in the consumption and production of apparel has been the globalization of the financial and capital market. Since the late 1980s, the inflow of countries that participate in international trade has increased manyfold. The share of the world population working in a capitalist economic system grew from 25 percent in the early 1990s to 70 percent in 2010 (Scheffer 2012). The apparel and textile producers in developed countries shifted manufacturing to lower-cost producers, mainly in Asia, and instead focused on design and distribution. During the same period developing countries invested in cotton cultivation, fibre production, and manufacturing technologies for all segments of textile and apparel production. In the early phase, the focus was on export-based industrialization, but this has in recent years shifted to include production for domestic markets (ibid.).

In addition to providing jobs and economic growth in developing countries, globalization, with the outsourcing of practices and production to low-income countries, has revealed social issues such as forced labour, child labour, low wages, and insufficient workplace safety. In an assessment of the social impact of textile imports to Sweden, researchers found that the apparel and textile imports were associated with significant social risks such as salary levels below those needed to ensure a living wage, child labour, and exposure to carcinogens at the workplace (Zamani et al. 2018). These social risks have not gone unnoticed in consumer markets. Several accidents and scandals, such as the 2013 collapse of the Rana Plaza garment factory building in Dhaka, Bangladesh, killing 1,136 garment workers, have spurred critique of the apparel industry. Large fashion brands started to be scrutinized and pressured to take responsibility for their suppliers and for working conditions in the factories. The fashion brands' early response was to implement codes of conduct (Ählström 2017) for their suppliers. Since then, several other corporate social responsibility (CSR) measures and practices have been developed, many initiated by fashion brands and on a voluntary basis. In addition, international and institutional frameworks and guidelines have also been developed and are now in place to mitigate negative social and environmental impacts. In addition to the ILO's labour standards, other examples include the OECD Guidelines for Multinational Enterprises, UN Guiding Principles on Business and Human Rights, ISO 45001 on Occupational Health and Safety, and the UN Sustainable Development Goals.

Informal market practices are seldom an explicit part of these types of management systems, standards, and guidelines. In the ISO-family the inclusion of those engaged in the informal sector is mentioned regarding the guidance to an efficient and credible implementation of improved recycling practices of secondary metals (International Organization for Standardization, 2020). The collection and sorting of used apparel and textiles is still undertaken via manual labour, and in many cases outside the formal sector. With an increased focus on the recycling of clothing, with issues such as chemical contamination and respiratory impacts from textile dust, potentially similar management practices to those used with metals could apply for implementing safe sorting and recycling practices for textiles.

In the scholarly studies of apparel and the informal sector, the use of CSR practices has been analysed in terms of impact in moving industries towards the formal sector and possibilities to expand the business to international markets. In a study of Vietnamese small and medium enterprises (SMEs), Trifkovic (2017) found a strong relationship between participation in international markets and commitment to CSR, compliance with labour standards, and corporate investing in community-related actions. Of particular interest were the spillover effects of internationally recognized non-labor standards, such as ISO 9001 and ISO 14001, on employee wages, formal contracts, and fringe benefits. The results showed that certified firms paid higher average wages and were more likely to offer formal contracts to their employees (ibid.). These results suggest that the implementation and monitoring of international CSR compliance measures would support a move away from informal practices to more formalized market practices and that this would spill over to generate opportunities for firms to expand and access international markets.

In an Indian study of the effects of labor regulation on apparel firms and exports, Hasan et al. (2021) found that apparel producers in Indian states with pro-worker labor regulations tended to employ more capital-intensive techniques, produce more output per worker, and hire fewer workers. Also, they found that apparel firms in states with pro-worker labor regulations employed a larger share of contract workers, especially among domestic producers as opposed to exporting firms who had to adhere to labor codes prompted by overseas buyers and consumers in developed economies. The results suggest that export-oriented companies had less flexibility to adapt to short-term fluctuating market conditions compared to producers for the domestic market. This corresponds with the earlier mentioned studies, stating that norms and guidelines implemented in global supply chains will influence practices away from informality towards formality. On the other hand, the results of this study also suggest that the implementation of stricter rules and norms could have a negative effect on the number of workers employed, which in countries with high unemployment could create tensions.

Related to spill-over effects, a study of the implementation of cleaner production technologies and practices to improve sustainability in the Brazilian textile industry found that investment in sustainability yielded both economic and environmental gains, as well as contributing to SDGs 9, 12, and 15 (Neto

et al. 2019), indicating that the adoption of clean production practices will spill over to promote lower natural resource use and reductions in energy use, emissions, and waste, as well as economic gains.

Studies of the apparel sector and social sustainability show that consumers expect that social sustainability and responsibility should be promoted throughout supply chains. However, non-compliance with international standards is common. Studies of the apparel supply chain and reasons for non-compliance show a variety of motives, including measures being too expensive and time-consuming for the supplier, variability and lack of stringency in the standards and regulations to comply with, regional cultural norms, etc. (Venkatesh et al. 2021). Since apparel supply chains usually are complex with many tiers of suppliers, the implementation of standards would also be very difficult, in particular in countries with a large informal sector consisting of many small unregistered firms and informal employees.

The textile and apparel industry has also been known for employing significant numbers of migrant workers. China, Bangladesh, and Ethiopia all have garment industreis located in clusters in large industrial parks in a few regions. Workers are usually recruited from other parts of the country, such as from farming regions. However, there are also practices of employing refugees into the sector. In a period of high refugee migration from Syria, in 2018, the impacts on Turkish firms were concentrated on the informal economy. Altındağ et al. (2020) showed that the arrival of refugees had a positive impact on local business and firm creation, but refugee workers largely replaced native workers in the informal labor market. The informal hiring of refugees was done mostly by small enterprises in labor-intensive sectors such as construction and hospitality. Since Turkey also has a sizeable garment industry, it is probable that Syrian refugees went into that sector as well. One factor that likely contributed to the rapid entry of many Syrian refugees into work was that Turkey had a sizeable Arabic-speaking population, reducing language and social barriers (ibid.).

Business operations, which often require access to capital and other resources, are a challenge in the informal sector due to a lack of access to formal investors and networks. Language and cultural aspects play a role, but a sizable social capital has also been shown to be of importance. In a Nigerian study it was found that internal social capital contributes to both financial and non-financial business performance in informal textile small and medium enterprises (SMEs). A large network of supporting family and friends, which gave entrepreneurs access to tangible and intangible assets for performing business operations and helped mobilize human and capital resources to identify and act on business opportunities, turned out to be of decisive importance for success in business (Akintimehin et al. 2019).

In summary, informal-market firm and employment practices have implications for both job creation opportunities and entrepreneurship. They can support development and poverty alleviation but can also hinder business creation and possibilities to scale up and expand the enterprise for larger international markets. The social challenges for workers in the informal garment

market relate to poor working conditions, where health and safety are at risk. Small informal enterprises usually have less access to capital and are contracted by others to perform simple, low-added-value tasks. Studies of how regulation, certification, and/or international norms influence informal market practices are pointing to the idea that the implementation of such can contribute to a formalization of firms that in turn can create positive spill-over effects on growth, productivity, and potential international sales. However, it also shows that informal production practices prevail, and even grow, for domestic production and that this can contribute to a reduction in the volume of employment. Several studies suggest that informal firms and employees contribute to and are intertwined with formal economic activities, and should be more closely studied to better understand the relationship to the formal market and the impact and contribution to the economy.

#### Concluding discussion

The aim of this chapter was to explore informal-market practices in the apparel industry and their environmental and social impact. Reviewing literature on the subject reveals that the industry is heavily globalized and dependent on the informal sector for the production of clothes. Production occurs primarily in low-income countries where unsustainable and informal market practices are rampant. Recent life-cycle studies of garments show that over 80 percent of environmental impact stems from the production phase of apparel, where there is also high risk of social issues such as poor working conditions, below living wages, and health problems for workers. The informal sector and market practices make up a substantial share of the textile and apparel supply chain, with up to 80 percent of employees being in informal employment in several of the garment-producing countries. The practice of using workers and small companies outside the formal market in this industry has had profound ramifications for the possibilities of reducing the negative environmental and social impact of the production.

The large negative environmental and social impact of the apparel industry, with its lack of transparency and heavy use of informal sub-contractors, makes mitigation efforts to solve the industry's environmental and social problems very challenging. The informal activities in the textile and apparel sectors have a negative impact on progress with global climate mitigation measures, water access management, and reduction of chemical use. In addition, efforts to progress through social programs and sustainable development goals face challenges when firms and employees are not registered and fall outside regulatory and jurisdictional boundaries and as such are vulnerable to exclusion from social security and access to health services.

However, several of the studies show that the organization of informal activities for the global apparel market is embedded in and intertwined with formal market activities in a complex network of exchanges and relationships. Several studies have pointed out that these small entrepreneurs are more flexible in

adjusting to market demands, which can contribute to a more flexible economy and be more attractive for international brands. In many developing countries, unregulated small and micro enterprises are involved in delivering products and services for the global apparel market, directly or indirectly by being a sub-contractor to an exporting firm. This link to global markets and formal companies can, through consumer awareness and sustainability activism, exert pressures for formalization and transparency in supply chains. This could be beneficial in mitigating some of the negative environmental and social impacts of informal market practices through, for example, implementation of codes of conduct and international environmental standards. On the other hand, the positive intentions that lie behind demanding certification and implementing environmental regulation can nonetheless risk pushing informal firms in the value chain even further away from the formal market, if measures are not taken to include and provide resources to help informal firms and employees transition to compliance with new norms and regulations.

Several of the studies discussed in this chapter point to the importance of institutionalizing international norms and guidelines as an effective instrument to move the industry away from the informal and into the formal sector. Several certification schemes are already commonly used that, upon adoption, open up access to international markets and offer expansion potential for the supplier.

For environmental impact, the ISO 14001 standards are certifiable, however usually compliance with them requires a large financial and time commitment on the part of the supplier to complete the associated assessments and reporting. Some of the social certification schemes and tools require further development to reflect the actual damages or benefits incurred by company-level activities and interventions on social endpoints throughout the value chain; this is so, for example, for human well-being and staff turnover rate, which are still very undeveloped. There are a few certification schemes and tools that have lately emerged in the market for social assessment and certifications. One of the most used for labour standards that is certifiable is the Social Accountability Standard, SA8000. SA8000 is based on internationally recognized standards and regulations such as the Universal Declaration of Human Rights, ILO conventions, and national laws. There are several other social accountability and knowledge providers that are often used in the textile and apparel industry. One example is Fair Wear (Fair Wear, n.d.), which works with brands to improve labour conditions in factories, including performing factory audits. Some of the larger brands have created an alliance, the Sustainable Apparel Coalition (SAC), whose members are committing to measure and improve environmental and social impacts throughout the value chain. SAC has developed a set of tools, the Higg Index, that will support the development and improvement of standardized value-chain sustainability performance.

However, these standards and certifications often impose a heavy burden on the supplier in terms of time and resource commitments. Informal firms are often small or medium sized, without access to the financial resources necessary to fulfil the commitments that a certification would entail. Furthermore, informal firms are often contracted by larger firms via several tiers of suppliers, and might not be directly engaged in factory reviews or certification schemes. Some studies point out that informal firms might switch to production for the domestic market, where demands for certification are not made or deemed important. The risk of the continuation of informal practices, but now more detached from international scrutiny, could therefore be assumed to be imminent.

With the widespread use of informal market practices in many of the textileand apparel-producing countries, there is probably no quick fix to transform the informal sector to formality. One must ask oneself why so much of the production of apparel is done by the informal sector. Part of the answer might be connected to the dysfunctionalities of formal markets, such as corruption and bureaucracy that, for example, hamper entrepreneurship or female-led businesses. Other answers can be tied to the fast moving and trend-sensitive apparel industry demanding that suppliers quickly adapt to new demands, which are met by using contract workers who offer flexibility in terms of production volume. The increased consumption of fast fashion and an economic logic that puts pressure on the whole value chain to produce at the lowest possible cost will, in all likelihood, contribute to a continued reliance on lowincome countries with sometimes large informal sectors to supply apparel for some time to come. Apparel production countries are in addition competing with one another to supply the world market with low-cost apparel, and seek to attract economic activity by offering low regulatory standards, low wages, low costs of business, etc., which might result in a 'race to the bottom' between different countries - that in turn will further amplify the social and environmental problems.

To summarize, informal practices are a large part of the apparel industry, with up to 80 percent informally employed in production, contributing to negative environmental and social consequences. Even though some studies have pointed to the positive role the informal market can play in terms of creating income and giving women a chance to work, the negative human and environmental impacts are still substantial enough to warrant supporting a movement towards the formalization of apparel production. Some signs that the industry is moving towards formalization are the increasingly aware consumer and the pressure on brands to take responsibility for the factory working conditions and environmental footprint of their products, as well as the furthering of comprehensive and easy-to-implement supplier codes of conduct. The discussion and transparency of problems linked with the consumption and production of apparel will continue to spur the implementation of remedies to solve the sustainability challenges for the sector. This pressure will trickle down and measures for including the firms and workers in the informal sector will with all likelihood continue to develop. Education of the factory workforce, its management, the continued work of ILO and others to implement and support the implementation of sustainability management practices in the garment industry along with economic development in production countries, will eventually

make a decisive impact on the industry and the movement away from informal market practices over the long run.

What is needed now, for the apparel industry to transition from informal to formal market practices, is to engage and include informal market actors in the process and give them access to the educational, relational, and various capital resources needed to support such a transition. Countries with a large informal sector would need international institutional support to manage a transition to inclusive economic industrialization and international growth, without a heavy burden on the environment and with decent working conditions for their people. The informal sector in the apparel and textile industry is so vast that, in practice, it is part of the economy of the country and should as such be included and made transparent. One could speculate whether a country could avoid costly investments in clean technology and labor practices by continuing to tolerate a large informal sector. Doing so not only benefits the country's price competitiveness on the global apparel market, and with it potential growth, but also benefits buyers in the global apparel market by offering low-priced goods, making informal production and consumption practices harder to break. The transition away from informal production practices in the textile and apparel sector would likely benefit from collaborative efforts between international and national governmental bodies and entities in the private sector, who together could drive more inclusive and formal practices with less negative social and environmental impact.

#### Notes

- 1 The discussion in this chapter of "informal market practices" in the apparel industry is not based on a unified definition of informal-sector activities, but will rather illustrate the broad set of informal activities that are considered to take place in a way entangled and embedded with formal textile and apparel consumption and production.
- 2 The illustration in Östlund et al. 2020 is based on data from The Fiber Year Consulting (2019).

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